

Final Report

**Harbor Corridor Specific Plan**  
Traffic Impact Study

City of Santa Ana, California

Prepared for



City of Santa Ana  
Public Works Agency  
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## 1.0 Introduction

### 1.1 STUDY PURPOSE

This traffic analysis report has been prepared as part of the Harbor Corridor Plan Environmental Impact Report (EIR). The purpose of this traffic study is to document the forecast traffic conditions within the study area with development proposed in the Harbor Corridor Plan, to identify potential impacts to study area intersections and roadway segments based on City of Santa Ana standards, and to formulate measures to mitigate those impacts.

### 1.2 REPORT ORGANIZATION

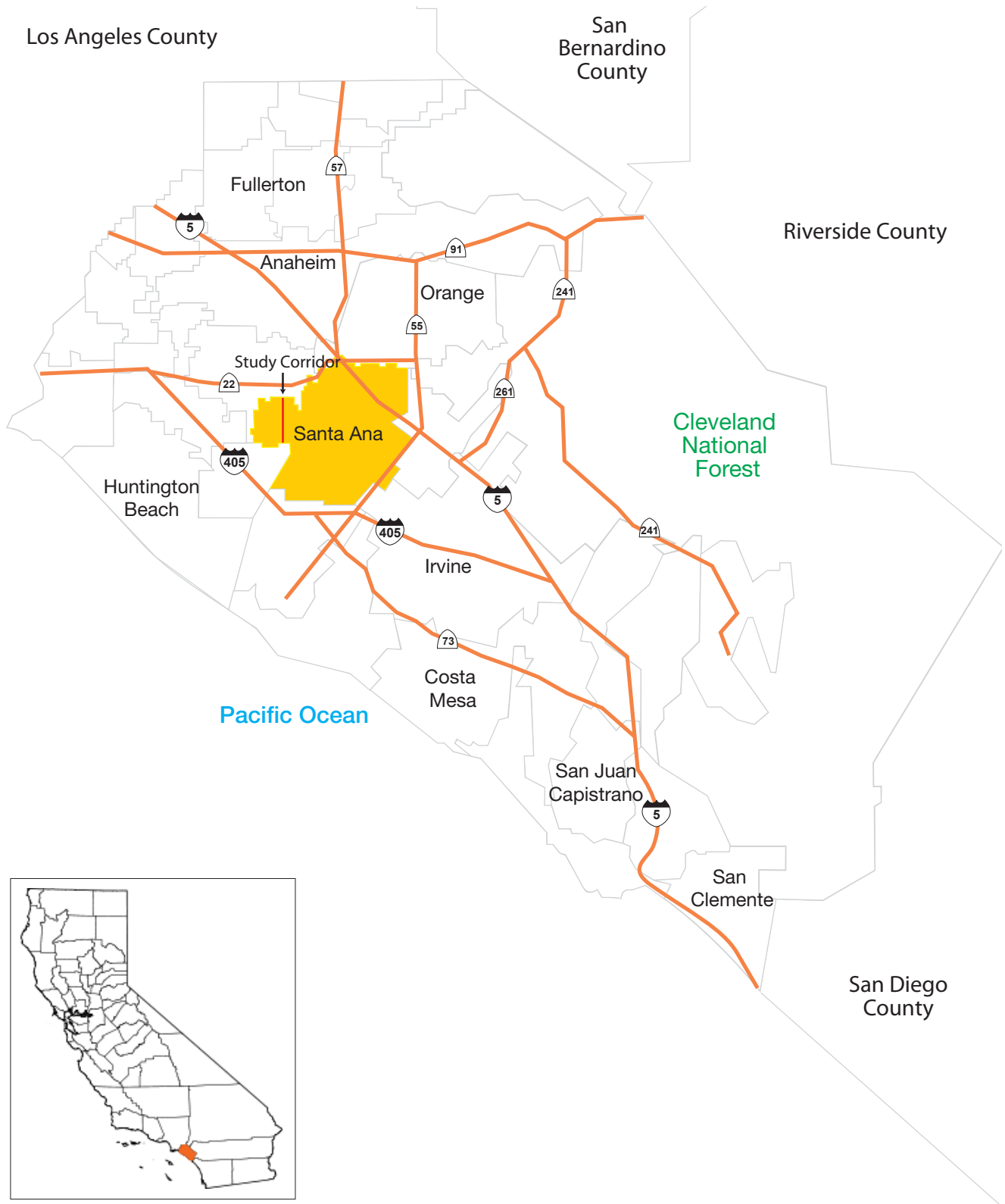
This report consists of 10 sections.

- 1.0 Introduction
- 2.0 Project Description
- 3.0 Analysis Methodology
- 4.0 Existing Year 2013 Conditions
- 5.0 Year 2035 Forecast Modeling
- 6.0 Future Year 2035 No Project
- 7.0 Future Year 2035 With Project
- 8.0 Orange County Congestion Management Program Analysis
- 9.0 Potential Mitigation Measures
- 10.0 Conclusions
- Appendix

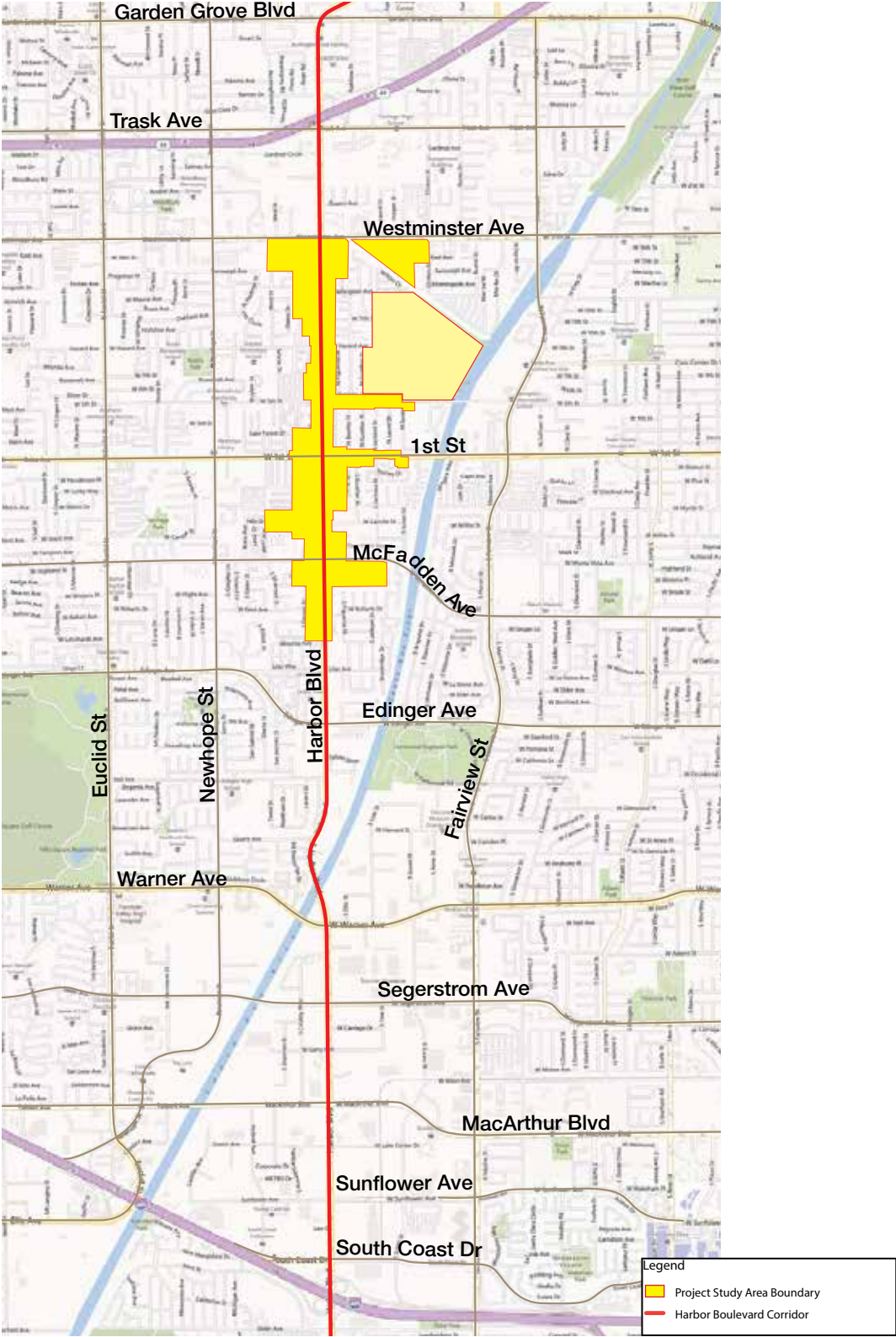
Section 1 provides a brief introduction to the study area and report organization. Section 2 provides a summary of the project description, background history, and project description. Section 3 includes the methodology utilized in the analysis and the referenced standards. The study area roadways and Existing Year 2013 intersection geometry, turning movement volumes, and level of service are presented in Section 4. The Future Year 2035 forecast modeling methodology is provided in Section 5. Section 6 describes the Future Year 2035 No Project condition and provides the roadway segment and intersection level of service results. Section 7 describes the Future Year 2035 With Project condition and provides the roadway segment and intersection level of service results. The Orange County Congestion Management Program Analysis is provided in Section 8. Section 9 presents the mitigation measures to address facilities operating at an unacceptable level of service. Findings and conclusions from this study are presented in Section 10.

The City boundaries/project study is shown in Exhibits 1.1 and 1.2.

# Exhibit 1.1 - Project Location



# Exhibit 1.2 - Project Study Area



## 2.0 Project Description

This section provides an overview of the project background and the proposed Harbor Corridor Plan.

### 2.1 BACKGROUND HISTORY

Harbor Boulevard serves as a key local and regional transportation corridor, as well as a local and regional commercial center. The North Harbor Specific Plan (NHSP), adopted in 1994 was developed to improve the corridor and address concerns in the areas of traffic, visual quality, and land uses. The NHSP encompasses approximately 425 acres along Harbor Boulevard from Westminster Avenue to the City’s southern boundary. The City of Santa Ana is looking to update this document with the Harbor Corridor Plan (HCP). The intent of this update is to provide for sustainable growth through the implementation of transit-oriented mixed-use development and more affordable housing.

### 2.2 EXISTING LAND USES (NO PROJECT)

The project study area along Harbor Boulevard currently consists of approximately two million square feet of commercial uses, 739 residential dwelling units, and an operating 18-hole public golf course. Existing commercial uses include auto service and sales, grocery stores, service businesses, and restaurants. The existing project study area also includes 739 residential units, including multi-family residential and mobile homes, and single-family residential areas. The Willowick Golf Course is located in the northeast portion of the project study area. Table 2-1 summarizes the existing land uses located within the project study area.

**Table 2-1 Existing Study Area Land Uses**

<b>TAZ</b>	<b>Retail (SF)</b>	<b>Service (SF)</b>	<b>Other (SF)</b>	<b>Residential (DU)</b>
622	46,269	187,546	147,530	-
718	21,215	86,738	174,233	230
724	52,278	202,154	13,312	61
732	70,011	80,757	1,979	-
747	34,486	33,310	88,500	150
748	41,995	96,953	76,787	105
765	50,840	87,463	2,696	-
766	316,784	40,420	-	193
<b>Total</b>	<b>633,878</b>	<b>815,346</b>	<b>505,037</b>	<b>739</b>

### 2.3 HARBOR CORRIDOR PLAN (WITH PROJECT)

The Harbor Boulevard Mixed Use Transit Corridor Plan would replace the existing 425-acre NHSP. The plan would change the boundaries of the NHSP so that the project would consist of two separate areas: 1) 305 acres within the boundaries of the existing 425-acre NHSP generally along Harbor Boulevard (or “Harbor Corridor Plan”), and 2) 120 acres within the existing NHSP in the Willowick Golf Course area (or “Conventional Zoning Area”).

Implementation of the Harbor Corridor Plan would also include improvements to Harbor Boulevard and its cross streets: Fifth Street, First Street, McFadden Avenue, and Westminster Boulevard. These improvements are designed to create a robust multimodal corridor that accommodates the movement of vehicular traffic through the City and region as well as other modes of travel. Proposed improvements include the enlargement of sidewalk and parkway areas to facilitate safe bicycle and pedestrian travel along Harbor Boulevard and efficient connections to the regional bicycle network.



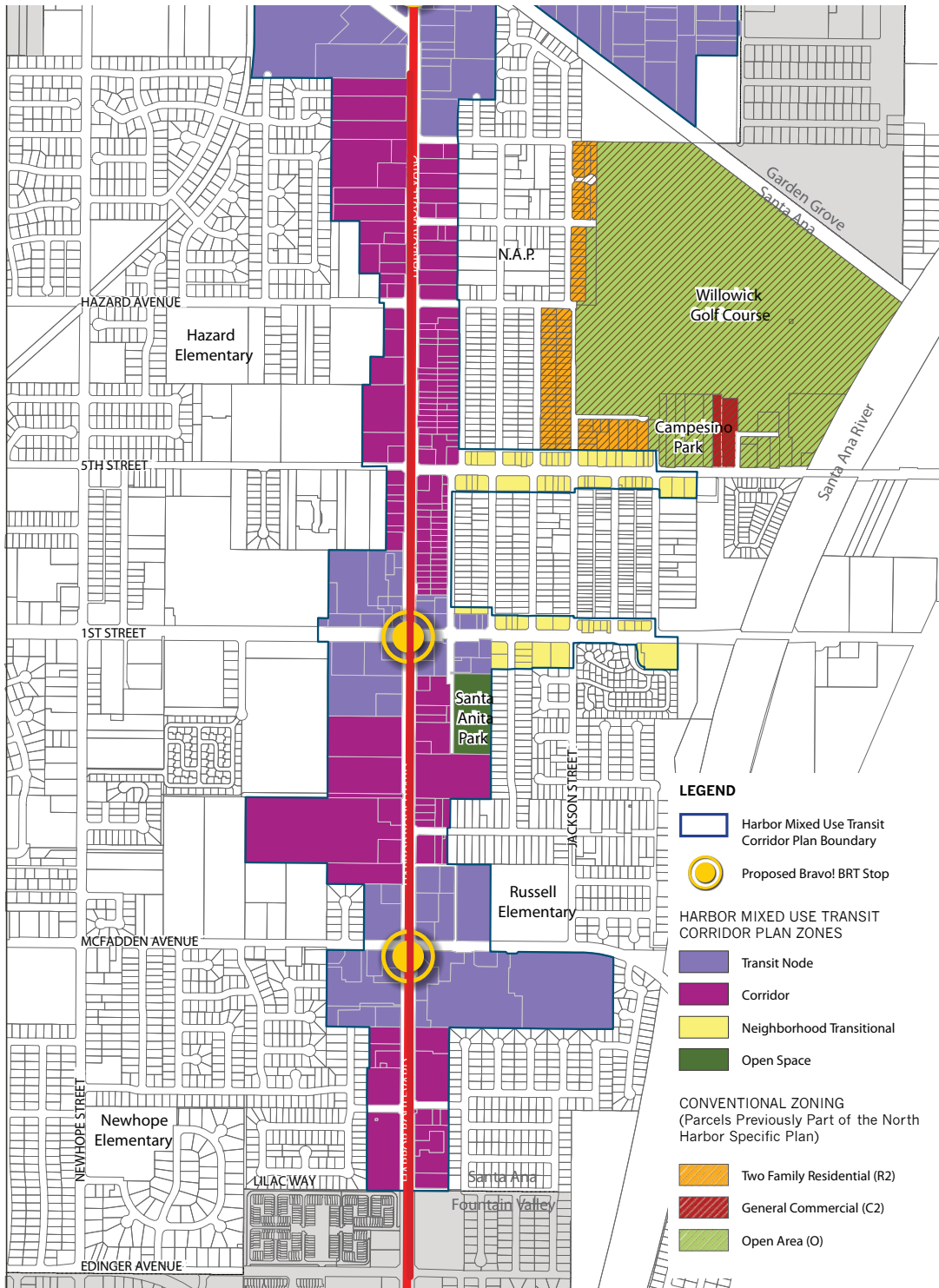
The improvements would maintain the same rights-of-way and number of travel lanes on the affected roadways.

Adoption of the Harbor Corridor Plan would allow for approximately 4,600 residential units and 2 million square feet of commercial space to be located in the plan area. The remaining 120 acres located within the Conventional Zoning Area is proposed to remain consistent with existing conditions, and is not included in the Harbor Corridor Plan. Table 2-2 summarizes the land uses proposed in the HCP.

**Table 2-2 Harbor Corridor Plan (HCP) Land Uses**

<b>TAZ</b>	<b>Retail (SF)</b>	<b>Service (SF)</b>	<b>Other (SF)</b>	<b>Residential (DU)</b>
622	125,000	375,000	-	1,229
718	102,000	-	161,000	708
724	88,827	-	-	628
732	208,271	-	-	272
747	83,000	-	34,000	749
748	115,000	-	-	544
765	185,600	-	-	268
766	490,284	-	-	224
<b>Total</b>	<b>1,397,982</b>	<b>375,000</b>	<b>195,000</b>	<b>4,622</b>

# Exhibit 2.1 - Harbor Corridor Specific Plan (With Project)



## 2.4 SUMMARY

A summary of the existing land uses and With Project (HCP) land uses is provided in Table 2-3. The total land uses in each scenario do not include the 120 acres within the Conventional Zoning Area, as this area is not part of the Harbor Corridor Plan. The land uses proposed in the Harbor Corridor Plan would replace the land uses that are currently permitted within the study area. The Harbor Corridor Plan is proposing to increase retail and residential uses, and decrease service and other uses.

**Table 2-3 Summary of Existing and Project Land Uses**

Scenario	Retail (SF)	Service (SF)	Other (SF)	Residential (DU)
Existing Land Uses (2013 No Project)	633,878	815,346	505,037	739
HCP Land Uses (2035 With Project)	1,397,982	375,000	195,000	4,622
<b>Net Increase (Decrease)</b>	764,104	(440,346)	(310,037)	3,883

Note: Daily trips generated by OCTAM (Version 3.4) and account for mode split and pass-by trips.

A summary of daily trip generation per the Orange County Transportation Authority Model (OCTAM, Version 3.4) is provided in Table 2-4. The project study area is made up of eight traffic analysis zones (TAZ). The daily trips generated within the eight study area TAZs for each scenario is provided in Table 2-4. Detailed breakdown of trips generated by land use per OCTAM is provided in the Appendix.

**Table 2-4 Summary of Existing and Project Land Uses**

Scenario	Total Daily Trips
<b>Existing Land Uses (2013 No Project)</b>	88,063
<b>Existing + Cumulative (2035 No Project)</b>	91,133
<b>HCP Land Uses (2035 With Project)</b>	121,267

Note: Daily trips generated by OCTAM (Version 3.4) and account for cumulative growth, mode split and pass-by trips.  
TAZ: Traffic Analysis Zone

### 3.0 Analysis Methodology

The traffic analysis presented in this report was prepared in accordance with the City of Santa Ana requirements and the Orange County Congestion Management Program (CMP) guidelines. The intersection analysis methodology and performance criteria used in this analysis conform to the California Environmental Quality Act (CEQA) guidelines for a traffic impact analysis.

The traffic analysis conducted for the Santa Ana Circulation Element Update includes an assessment of traffic conditions for 29 existing intersections and 15 roadway segments for four analysis scenarios, as summarized in Table 3-1.

**Table 3-1 Analysis Scenarios**

Analysis Year	Analysis Scenario
2013	Existing Condition No Project
2013	Existing Condition With Project (HCP)
2035	Future Year No Project (Existing + Cumulative Projects)
2035	Future Year With Project (HCP)

#### 3.1 ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS AND CRITERIA

Arterial roadway segment performance is based on the capacity of the facility (as determined by the functional classification, roadway geometrics, and number of through lanes) and the Average Daily Traffic (ADT) volumes. The City of Santa Ana General Plan Circulation Element evaluates roadway segment performance in terms of Level of Service (LOS), where the thresholds for each LOS grade are based on daily volume-to-capacity (V/C) ratios. The maximum average daily volumes for arterial roadways by street classification and lane configuration and the corresponding Level of Service are summarized in Table 3-2. Descriptions of operation and the range of volume-to-capacity ratios for each LOS grade are presented in Table 3-2.

**Table 3-2 Maximum Average Daily Traffic and LOS for Arterial Roads**

Street Classification	Lane Configuration	A	B	C	D	E	F
Principal Arterial	8 Lanes Divided	45,000	52,500	60,000	67,500	75,000	>75,000
Major Arterial	6 Lanes Divided	33,900	39,400	45,000	50,600	56,300	>56,300
Primary Arterial	4 Lanes Divided	22,500	26,300	30,000	33,800	37,500	>37,500
Secondary Arterial	4 Lanes Undivided	15,000	17,500	20,000	22,500	25,000	>25,000
Divided Collector Arterial	2 lanes Divided	9,000	12,000	15,000	20,000	22,000	>22,000
Commuter Street	2 Lanes Undivided	7,500	8,800	10,000	11,300	12,500	>12,500

Source: City of Santa Ana, General Plan – Circulation Element, 1998

#### 3.2 INTERSECTION LEVEL OF SERVICE ANALYSIS AND CRITERIA

Traffic conditions at signalized intersections are evaluated using the Intersection Capacity Utilization (ICU) methodology consistent with the City of Santa Ana traffic analysis procedures. The ICU

methodology is based on intersection volume-to-capacity (V/C) ratios. The V/C value for each movement is the observed or forecast volume divided by the saturation flow volume. The intersection ICU value is the sum of the V/C values for the critical movement on each leg, where critical movements are the pairs of conflicting movements with the highest combined V/C values. ICU is usually expressed as a decimal value (e.g. 0.74), where 1.00 represents the saturated condition where the volume of traffic flow is equal to the capacity. This study uses maximum saturation volumes of 1,600 vehicles per hour per lane (VPHPL) for turn lanes and 1,700 VPHPL for through lanes for the study intersection analysis.

The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of roadways and intersections involves the assignment of grades from “A” to “F,” with LOS “A” representing the highest level operating conditions and LOS “F” representing extremely congested and restricted operations. Each letter grade corresponds to a range of ICU values, as described in Table 3-3.

**Table 3-3 ICU Level of Service Descriptions**

Level of Service	Range of V/C Ratios	Definition
A	0.00 – 0.60	Free Flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.
B	0.61 – 0.70	Stable flow. The presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream with LOS A. The general level of comfort and convenience provided is somewhat less than that of LOS A, because the presence of others in the traffic stream begins to affect individual behavior.
C	0.71 – 0.80	Stable flow. This LOS marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.
D	0.81 – 0.90	High density, but stable flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.
E	0.91 – 1.00	Operating conditions at or near the capacity level. All speeds are reduced to a slow but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and generally accomplished by forcing a vehicle or pedestrian to “give way” to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and drivers or pedestrian frustration is generally high. Operations at this level are usually unstable because small increases in flow or minor variations within the stream will cause a breakdown.
F	> 1.00	Forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse that point. Queues form up behind such locations as arrival flow exceeds discharge flow.

Source: City of Santa Ana, General Plan – Circulation Element, 1998

All freeway ramp termini intersections are evaluated using the Highway Capacity Manual 2000 (HCM 2000) Operations methodology consistent with Caltrans guidelines. Chapter 16 of the Highway Capacity Manual (HCM) 2000 contains the operations methodology for signalized intersections, which evaluates LOS based on controlled delay per vehicle. Controlled delay is defined as the portion of the total delay attributed to the traffic signal operation including deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Consistent with HCM 2000 methodology the maximum saturation flow rate for intersections analyzing using HCM 2000 is 1,900 VPHPL. The relationship between controlled delay per vehicle and LOS for signalized intersections is summarized in Table 3-4.

**Table 3-4 HCM 2000 Level of Service Descriptions**

Level of Service	Description of Traffic Conditions	Controlled Delay (sec/veh)
A	Insignificant delays: no approach phase is fully utilized and no vehicle waits longer than one red indication.	≤ 10
B	Minimal delays: an occasional approach phase is fully utilized. Drivers begin to feel restricted.	> 10 – 20
C	Acceptable delays: major approach phase may become fully utilized. Most drivers feel somewhat restricted.	> 20 – 35
D	Tolerable delays: drivers may wait through more than one red indication. Queues may develop but dissipate rapidly, without excessive delays.	> 35 – 55
E	Significant delays: volumes approaching capacity. Vehicles may wait through several cycles and long vehicle queues form upstream.	> 55 – 80
F	Excessive delays: represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80

Source: Highway Capacity Manual, Transportation Research Board, 2000.

The intersection Level of Service analysis for this report was performed using TRAFFIX software. TRAFFIX is a network-based interactive computer program that enables calculation of levels of service at signalized and unsignalized intersections for multiple locations and scenarios. TRAFFIX also calculates signal timing (green times and cycle lengths) and maximum queue lengths to assist in evaluating signalized intersections.

### 3.3 MINIMUM ACCEPTABLE LEVEL OF SERVICE

The minimum acceptable level of service established by the Circulation Element of the City of Santa Ana General Plan is defined as LOS D for major intersections in the City, except in major development areas where LOS E is considered to be the minimum acceptable LOS. Intersections are considered to be significantly impacted if an unacceptable peak hour level of service is created by the project; or if the project increases the volume to capacity ratio at the study intersection by 1% of capacity (0.010) if the intersection already operates at an unacceptable level.

The Congestion Management Plan establishes LOS E as the minimum level of operation for CMP roadways (freeways and Smart Streets). A significant impact is caused by a 1% increase in V/C (0.010) if the CMP intersection already operates at LOS F. Within the project study area, Harbor Boulevard and First Street are designated as CMP roadways.

### 3.4 TRAFFIC COUNT DATA

The existing intersection turning movement counts were taken between February 2011 and February 2013 during the morning peak period (6:00 AM to 9:00 AM) and the afternoon peak period (4:00 PM to 7:00 PM). The AM and PM peak analyses are based on the hour of highest total intersection volume during the morning and afternoon periods. Average daily traffic volumes were also taken between February 2011 and February 2013 at 11 roadway segments. A 1% annual growth rate was applied to counts collected prior to 2013 to bring volume levels consistent with 2013. The daily segment and peak hour intersection count data sheets are included in the Appendix to this report.

### 3.5 TRAVEL DEMAND FORECASTING

The horizon year 2035 volumes were derived based on existing peak hour count data and forecast link volumes obtained from the Orange County Transportation Analysis Model (OCTAM 3.4). OCTAM 3.4 is the accepted regional model for forecasting travel demand in Orange County. Growth factors for each intersection approach and departure were interpolated from OCTAM link plots for 2010 and 2035. These growth factors were then applied to existing counts to forecast future turning movement volumes. OCTAM 3.4 was recently updated by OCTA and this traffic analysis update utilizes this new version of the model. Model plots for each scenario are provided in the Appendix to this report.

## 4.0 Existing Year 2013 Conditions

The project study area includes arterial roadways and signalized intersections in the vicinity of the project corridor. Descriptions of geometrical features and intersection level of service analysis results for the Year 2013 are included in this section.

### 4.1 EXISTING ROADWAY NETWORK

Selected arterials that are located in the vicinity of the project corridor are described in this section. Items of note include existing geometry, pedestrian and bicycle facilities, and adjacent land uses.

**Harbor Boulevard** is classified as a Major Arterial that travels north and south through the study area. Within the study area, there are three travel lanes in each direction with a raised, landscaped median. The posted speed limit is 45 miles per hour. On-street parking is not permitted and bike facilities are not provided. OCTA provides bus service along this corridor via Route 43 at approximately 20 minute headways and Route 534, operating at 10 minute headways.

**Euclid Street** is classified as a Major Arterial that travels north and south through the study area. Within the study area, there are three travel lanes in each direction with a striped center median functioning as a two-way left-turn lane. The posted speed limit is 45 miles per hour. On-street parking is not permitted and no bike facilities are provided. OCTA provides bus service along this corridor via Route 37 at approximately 30 minute headways.

**Newhope Street** is classified as a Secondary Arterial that travels north and south on the west end of Santa Ana. Within the study area, there are two travel lanes in each direction with a striped center median functioning as a two-way left-turn lane. The posted speed limit is 40 miles per hour. On-street parking is not permitted. Class II bike lanes were recently implemented between Westminster Avenue and McFadden Avenue. There are currently no bus routes that serve this corridor.

**Fairview Avenue** is classified as a Major Arterial that travels north and south through the study area. Within the study area, there are three lanes in each direction with a raised, landscaped median. The posted speed limit is 45 miles per hour. On-street parking is not permitted and bike facilities are not provided. OCTA provides bus service along this corridor via Route 47 at approximately 15 minute headways.

**17<sup>th</sup> Street/ Westminster Avenue** is classified as a Major Arterial traveling east and west through the northern region in Santa Ana. There are three lanes in each direction divided by a center median. The posted speed limit is 40 miles per hour. On-street parking is not permitted and there are currently no bike facilities provided along the corridor. Several OCTA bus routes serve this corridor, including Routes 51 and 60 with approximately 15-20 minute headways.

**Hazard Avenue** is classified as a Secondary Arterial that travels east and west through the study area. Within the study area, Hazard Avenue is a four-lane undivided roadway. Limited on-street parking is permitted adjacent to Rosita Park. The posted speed limit is 35 miles per hour and 25 miles per hour near the school zone. No bus routes or bike facilities are provided along this corridor.

**5<sup>th</sup> Street** is a four-lane undivided roadway east of Harbor Boulevard and a two-lane undivided roadway west of Harbor Boulevard. On-street parking is not permitted immediately east and west of Harbor Boulevard, but allowed further down the street. The posted speed limit is 35 miles per hour. Fifth Street is classified as a local collector west of Harbor Boulevard. East of Harbor Boulevard, Fifth Street is classified as a Secondary Arterial. There are pedestrian sidewalks located on both sides of the roadway. West of Harbor Boulevard, the sidewalk consists of landscaped buffers adjacent to the curb. East of Harbor Boulevard, there is minimal landscaping.

**1<sup>st</sup> Street** is classified as a Major Arterial that travels east and west through the study area. Within the study area, there are three lanes in each direction with a raised, landscaped median. The posted speed limit is 40 miles per hour. On-street parking is not permitted along this corridor. There are



currently no bike lanes or bike routes provided. OCTA provides bus service along this corridor via Route 64 at approximately 15 minute headways.

**McFadden Avenue** is classified as a Secondary Arterial (between Euclid Street and Grand Avenue) and a Primary Arterial (east of Grand Avenue) that travels east and west through the study area. Within the study area, there are two travel lanes in each direction with a raised, landscaped median. The posted speed limit is 40-45 miles per hour. On-street parking is not permitted along most of the corridor. No bike facilities are provided. OCTA provides bus service along this corridor via Route 66 and Route 145 at approximately 15-45 minute headways.

**Edinger Avenue** is classified as a Major Arterial that travels east and west through the study area. The roadway is a four-lane divided roadway between Euclid Street and Main. The posted speed limit is 40 miles per hour. On-street parking is not permitted along the corridor within the study area. There are currently no bike facilities provided along the corridor. OCTA provides bus service along Edinger Avenue via Route 70 at approximately 30 minute headways.

**Warner Avenue** is classified as a Major Arterial that travels east and west through the study area. Within the study area, Warner Avenue is a four-lane undivided roadway. The posted speed limit is 40-45 miles per hour. On-street parking is not permitted and there are currently no bike lanes provided along the corridor. There are two OCTA bus routes that serve Warner Avenue in the study area. Routes 72 and 463 operate with headways at approximately 20-30 minutes.

**Segerstrom Avenue** is classified as a Major Arterial that travels east and west through the study area. Segerstrom Avenue is a six-lane divided roadway between Susan Street and Harbor Boulevard and a four-lane divided roadway along the rest of the corridor. The posted speed limit is 40 miles per hour. On-street parking is not permitted and there are currently no bike facilities provided along this corridor. There are currently no transit services that operate along Segerstrom Avenue within the study area.

**MacArthur Boulevard** is classified as a Major Arterial that travels east and west through the study area. Within the study area, there are three travel lanes in each direction with a raised, landscaped median. The posted speed limit is 40 miles per hour. On-street parking is not permitted throughout the corridor and there are currently no bike facilities provided. OCTA operates four bus routes along this corridor via Routes 53, 55, 76 and 173. Headways range between every 10 minutes for Route 53, 30 minutes for Route 55, 60 minutes for Route 76, and 45 minutes for Route 173.

**Sunflower Avenue** is classified as a Primary Arterial with two lanes in each direction traveling east and west. Posted speed limit is 40 mph. On-street parking is not permitted within the study area. Class II bike lanes are provided within the study area. OCTA operates four bus routes along this corridor, includes Routes 172, 216, 464 and 794.

**South Coast Drive** is classified as a Primary Arterial with two lanes in each direction traveling east and west. Posted speed limit is 40 mph. On-street parking is not permitted within the study area. Class II bike lanes are provided within the study area. No bus routes operate along this roadway.

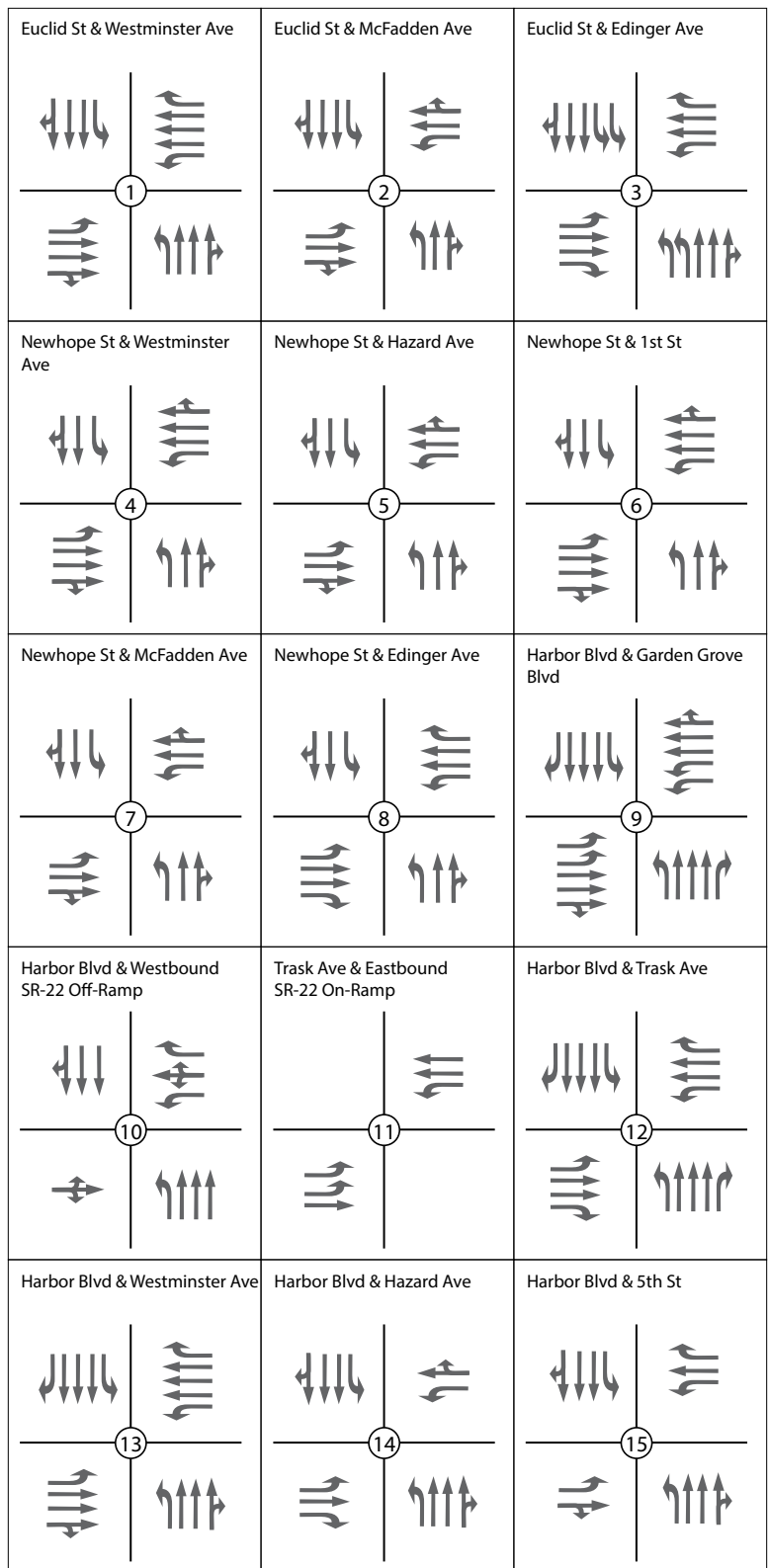
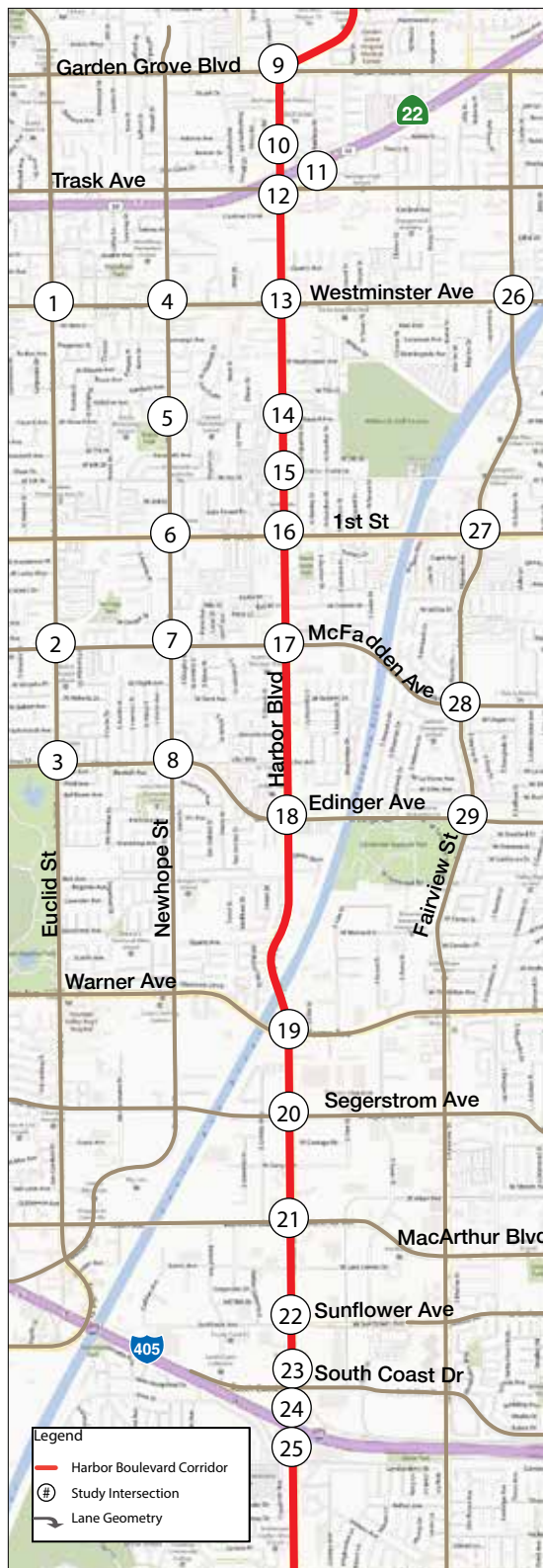
## 4.2 STUDY INTERSECTION GEOMETRY AND PEAK HOUR VOLUMES

Twenty-nine existing intersections were selected in consultation with the City of Santa Ana for analysis based on traffic impact and vehicle volumes. The existing study intersections are:

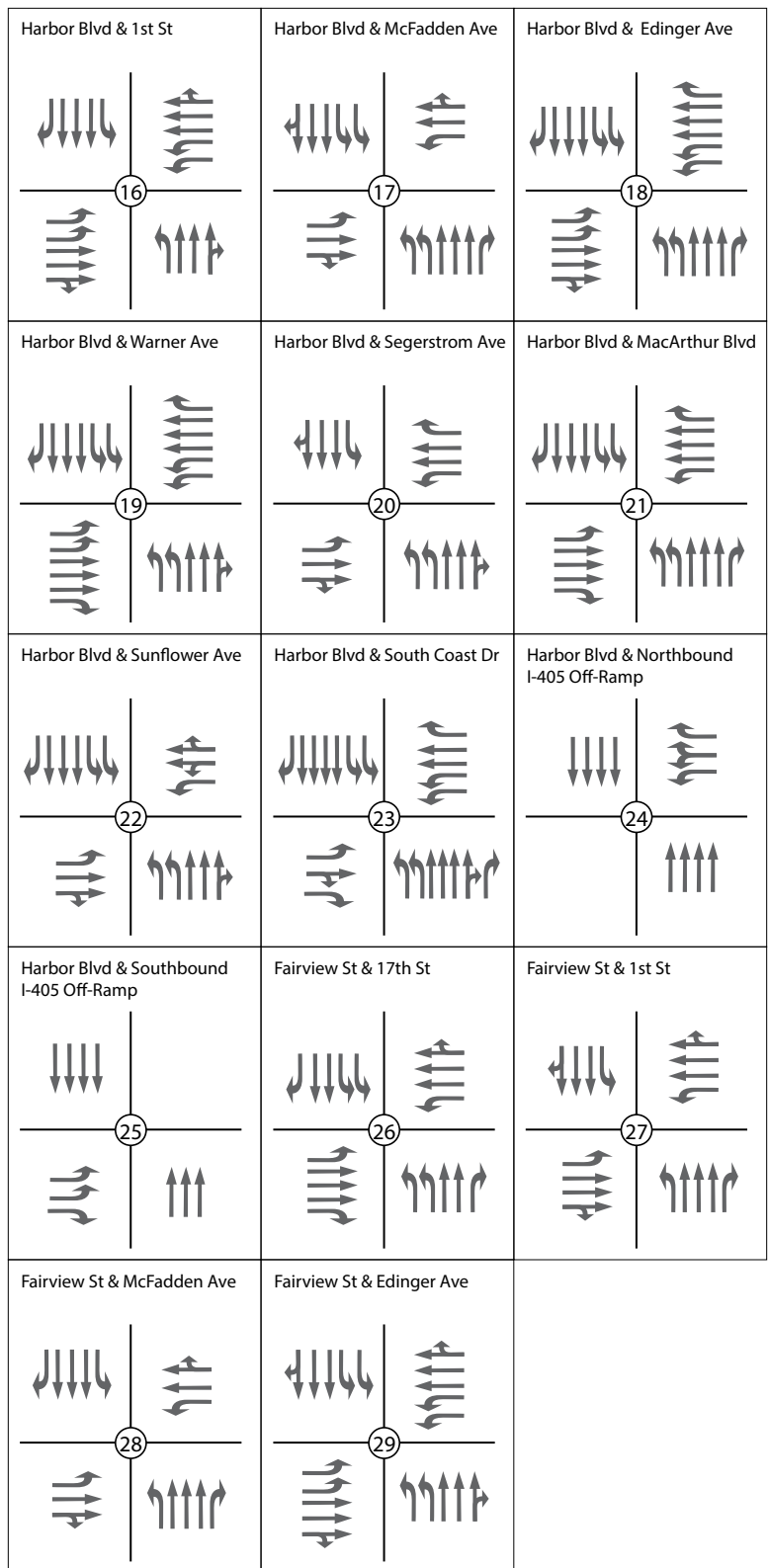
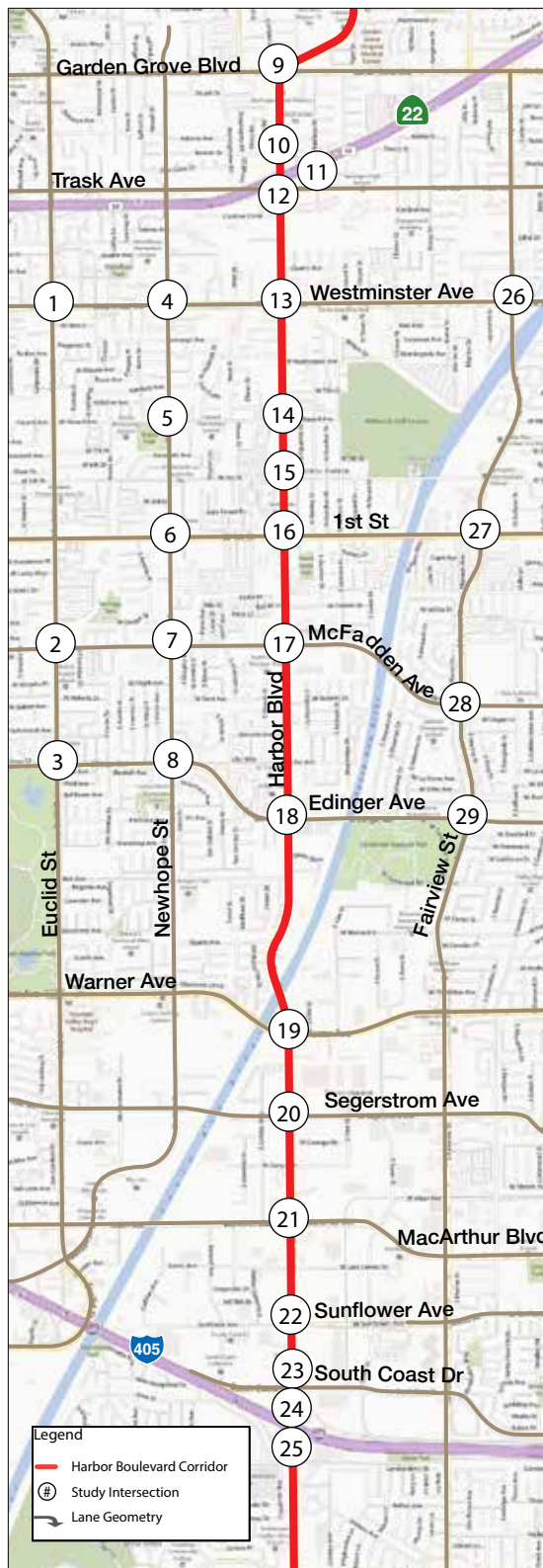
1. Euclid Street and Westminster Avenue
2. Euclid Street and McFadden Avenue
3. Euclid Street and Edinger Avenue
4. Newhope Street and Westminster Avenue
5. Newhope Street and Hazard Avenue
6. Newhope Street and 1st Street
7. Newhope Street and McFadden Avenue
8. Newhope Street and Edinger Avenue
9. Harbor Boulevard and Garden Grove Boulevard
10. Harbor Boulevard and Westbound SR-22 Off-Ramp
11. Trask Avenue and Eastbound SR-22 On-Ramp
12. Harbor Boulevard and Trask Avenue
13. Harbor Boulevard and Westminster Avenue
14. Harbor Boulevard and Hazard Avenue
15. Harbor Boulevard and 5th Street
16. Harbor Boulevard and 1st Street
17. Harbor Boulevard and McFadden Avenue
18. Harbor Boulevard and Edinger Avenue
19. Harbor Boulevard and Warner Avenue
20. Harbor Boulevard and Segerstrom Avenue
21. Harbor Boulevard and MacArthur Boulevard
22. Harbor Boulevard and Sunflower Avenue
23. Harbor Boulevard and South Coast Drive
24. Harbor Boulevard and Northbound I-405 Off-Ramp
25. Harbor Boulevard and Southbound I-405 Off-Ramp
26. Fairview Street and 17th Street
27. Fairview Street and 1st Street
28. Fairview Street and McFadden Avenue
29. Fairview Street and Edinger Avenue

Existing roadway and study intersection geometry are shown in Exhibit 4.1. Year 2013 AM peak hour turning movement volumes are shown in Exhibit 4.2, and the PM peak hour volumes are shown in Exhibit 4.3.

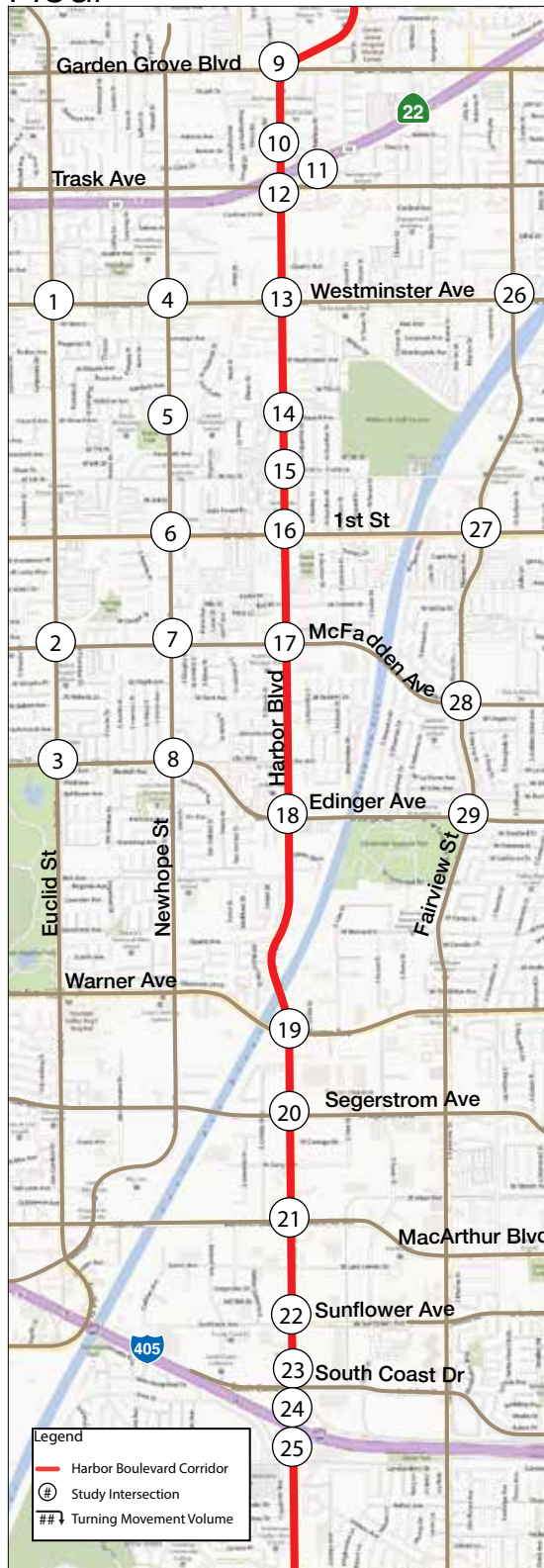
# Exhibit 4.1 - Existing Year 2013 Intersection Geometry



# Exhibit 4.1 - Existing Year 2013 Intersection Geometry



# Exhibit 4.2 - Existing Year 2013 No Project Volumes – AM Peak Hour



<p><b>Euclid St &amp; Westminster Ave</b></p> <p>90 1940 188</p> <p>124 468 169</p> <p>156 647 206</p> <p>147 1194 156</p> <p>1</p>	<p><b>Euclid St &amp; McFadden Ave</b></p> <p>172 2061 97</p> <p>122 314 73</p> <p>115 329 196</p> <p>102 1032 126</p> <p>2</p>	<p><b>Euclid St &amp; Edinger Ave</b></p> <p>172 1867 154</p> <p>119 583 113</p> <p>197 660 345</p> <p>154 881 92</p> <p>3</p>
<p><b>Newhope St &amp; Westminster Ave</b></p> <p>111 912 223</p> <p>129 424 139</p> <p>140 802 123</p> <p>107 665 220</p> <p>4</p>	<p><b>Newhope St &amp; Hazard Ave</b></p> <p>85 912 63</p> <p>55 134 55</p> <p>89 134 147</p> <p>91 660 72</p> <p>5</p>	<p><b>Newhope St &amp; 1st St</b></p> <p>219 958 156</p> <p>136 577 178</p> <p>152 690 76</p> <p>95 542 170</p> <p>6</p>
<p><b>Newhope St &amp; McFadden Ave</b></p> <p>100 988 118</p> <p>99 419 135</p> <p>96 443 138</p> <p>133 540 166</p> <p>7</p>	<p><b>Newhope St &amp; Edinger Ave</b></p> <p>97 994 171</p> <p>92 540 126</p> <p>94 801 126</p> <p>85 499 86</p> <p>8</p>	<p><b>Harbor Blvd &amp; Garden Grove Blvd</b></p> <p>126 909 79</p> <p>26 324 137</p> <p>255 643 275</p> <p>188 905 151</p> <p>9</p>
<p><b>Harbor Blvd &amp; Westbound SR-22 Off-Ramp</b></p> <p>13 1376</p> <p>102 57 792</p> <p>52 139</p> <p>54 1128</p> <p>10</p>	<p><b>Trask Ave &amp; Eastbound SR-22 On-Ramp</b></p> <p>128 688</p> <p>607 760</p> <p>11</p>	<p><b>Harbor Blvd &amp; Trask Ave</b></p> <p>108 1655 347</p> <p>626 226 109</p> <p>84 621 444</p> <p>55 779 364</p> <p>12</p>
<p><b>Harbor Blvd &amp; Westminster Ave</b></p> <p>64 1514 157</p> <p>160 480 236</p> <p>127 690 21</p> <p>159 1117 225</p> <p>13</p>	<p><b>Harbor Blvd &amp; Hazard Ave</b></p> <p>88 1977 22</p> <p>43 54 55</p> <p>121 35 188</p> <p>84 1171 6</p> <p>14</p>	<p><b>Harbor Blvd &amp; 5th St</b></p> <p>53 2018 112</p> <p>114 113 112</p> <p>82 152 82</p> <p>39 1065 66</p> <p>15</p>

# Exhibit 4.2 - Existing Year 2013 No Project Volumes – AM Peak Hour



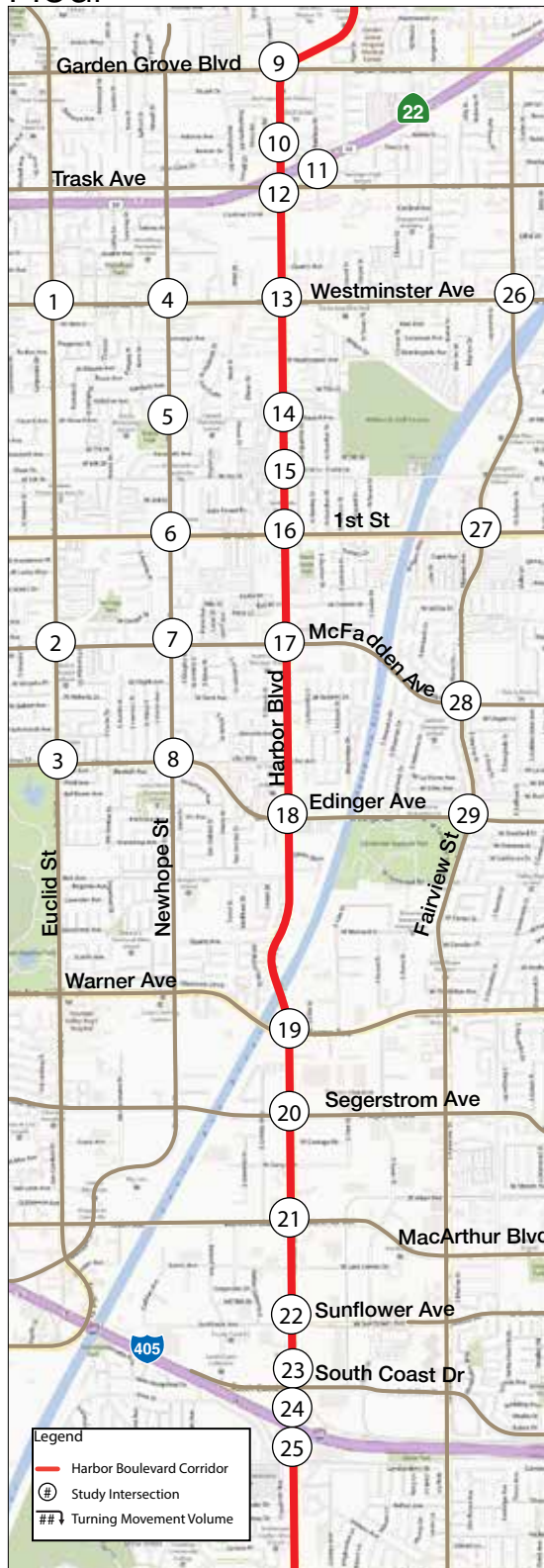
<p><b>Harbor Blvd &amp; 1st St</b></p> <p>100 2025 205</p> <p>89 564 205</p> <p>16</p> <p>147 753 131</p> <p>122 944 137</p>	<p><b>Harbor Blvd &amp; McFadden Ave</b></p> <p>59 1940 156</p> <p>138 352 175</p> <p>17</p> <p>160 414 140</p> <p>117 893 69</p>	<p><b>Harbor Blvd &amp; Edinger Ave</b></p> <p>55 2082 209</p> <p>150 392 203</p> <p>18</p> <p>88 644 213</p> <p>100 788 90</p>
<p><b>Harbor Blvd &amp; Warner Ave</b></p> <p>120 2015 366</p> <p>95 465 150</p> <p>19</p> <p>109 1026 308</p> <p>81 637 131</p>	<p><b>Harbor Blvd &amp; Segerstrom Ave</b></p> <p>119 2087 158</p> <p>101 311 78</p> <p>20</p> <p>82 439 243</p> <p>91 707 66</p>	<p><b>Harbor Blvd &amp; MacArthur Blvd</b></p> <p>155 2114 376</p> <p>113 366 133</p> <p>21</p> <p>115 1018 331</p> <p>117 882 92</p>
<p><b>Harbor Blvd &amp; Sunflower Ave</b></p> <p>59 2041 259</p> <p>89 129 105</p> <p>22</p> <p>9 67 31</p> <p>288 1259 146</p>	<p><b>Harbor Blvd &amp; South Coast Dr</b></p> <p>62 1965 75</p> <p>37 134 87</p> <p>23</p> <p>9 29 184</p> <p>243 1767 224</p>	<p><b>Harbor Blvd &amp; Northbound I-405 Off-Ramp</b></p> <p>2234</p> <p>884 482</p> <p>24</p> <p>1368</p>
<p><b>Harbor Blvd &amp; Southbound I-405 Off-Ramp</b></p> <p>1687</p> <p>364 509</p> <p>25</p> <p>1384</p>	<p><b>Fairview St &amp; 17th St</b></p> <p>120 1042 453</p> <p>229 438 223</p> <p>26</p> <p>204 1044 191</p> <p>156 911 241</p>	<p><b>Fairview St &amp; 1st St</b></p> <p>77 1437 177</p> <p>166 517 188</p> <p>27</p> <p>191 1048 179</p> <p>168 1390 226</p>
<p><b>Fairview St &amp; McFadden Ave</b></p> <p>105 1629 128</p> <p>55 459 191</p> <p>28</p> <p>212 509 132</p> <p>105 1153 117</p>	<p><b>Fairview St &amp; Edinger Ave</b></p> <p>107 1630 200</p> <p>162 607 404</p> <p>29</p> <p>275 665 198</p> <p>207 1054 108</p>	

# Exhibit 4.3 - Existing Year 2013 No Project Volumes – PM Peak Hour



<b>Euclid St &amp; Westminster Ave</b> 116, 1416, 176, 161, 701, 180, 184, 638, 248, 310, 1515, 131	<b>Euclid St &amp; McFadden Ave</b> 117, 1099, 101, 216, 441, 61, 92, 370, 164, 168, 1599, 95	<b>Euclid St &amp; Edinger Ave</b> 193, 823, 173, 167, 852, 89, 182, 648, 171, 464, 1536, 127
<b>Newhope St &amp; Westminster Ave</b> 100, 806, 107, 275, 749, 190, 215, 636, 165, 119, 1233, 163	<b>Newhope St &amp; Hazard Ave</b> 114, 770, 36, 74, 136, 30, 69, 145, 81, 120, 1398, 57	<b>Newhope St &amp; 1st St</b> 143, 662, 167, 251, 909, 163, 183, 690, 117, 130, 1004, 182
<b>Newhope St &amp; McFadden Ave</b> 107, 600, 127, 219, 520, 110, 78, 462, 63, 99, 1171, 157	<b>Newhope St &amp; Edinger Ave</b> 88, 517, 119, 214, 907, 90, 100, 729, 112, 181, 1119, 138	<b>Harbor Blvd &amp; Garden Grove Blvd</b> 198, 882, 130, 88, 737, 294, 359, 732, 221, 331, 1140, 174
<b>Harbor Blvd &amp; Westbound SR-22 Off-Ramp</b> 34, 1466, 178, 91, 593, 76, 77, 111, 1593	<b>Trask Ave &amp; Eastbound SR-22 On-Ramp</b> 53, 565, 781, 585	<b>Harbor Blvd &amp; Trask Ave</b> 119, 1211, 362, 750, 192, 74, 145, 538, 362, 93, 1194, 436
<b>Harbor Blvd &amp; Westminster Ave</b> 165, 1318, 209, 181, 793, 222, 152, 584, 36, 256, 1413, 243	<b>Harbor Blvd &amp; Hazard Ave</b> 118, 1483, 47, 33, 85, 29, 57, 47, 95, 131, 1877, 46	<b>Harbor Blvd &amp; 5th St</b> 85, 1315, 125, 163, 240, 119, 83, 131, 74, 91, 1652, 112

# Exhibit 4.3 - Existing Year 2013 No Project Volumes – PM Peak Hour



<b>Harbor Blvd &amp; 1st St</b> 124, 1096, 255, 143, 979, 288, 168, 709, 133, 225, 1583, 125 16	<b>Harbor Blvd &amp; McFadden Ave</b> 100, 1175, 242, 155, 470, 190, 191, 497, 64, 211, 1666, 128 17	<b>Harbor Blvd &amp; Edinger Ave</b> 82, 1029, 243, 89, 628, 147, 157, 760, 185, 212, 1857, 114 18
<b>Harbor Blvd &amp; Warner Ave</b> 93, 689, 187, 252, 1145, 117, 105, 638, 195, 358, 1828, 155 19	<b>Harbor Blvd &amp; Segerstrom Ave</b> 72, 888, 83, 287, 866, 72, 97, 425, 171, 223, 2038, 60 20	<b>Harbor Blvd &amp; MacArthur Blvd</b> 147, 1060, 166, 326, 1444, 147, 134, 472, 205, 494, 1776, 141 21
<b>Harbor Blvd &amp; Sunflower Ave</b> 42, 1511, 106, 197, 354, 373, 70, 158, 165, 71, 2048, 139 22	<b>Harbor Blvd &amp; South Coast Dr</b> 160, 1780, 110, 224, 764, 311, 20, 45, 381, 303, 2019, 207 23	<b>Harbor Blvd &amp; Northbound I-405 Off-Ramp</b> 2549, 969, 979, 1607 24
<b>Harbor Blvd &amp; Southbound I-405 Off-Ramp</b> 2588, 203, 802, 1886 25	<b>Fairview St &amp; 17th St</b> 104, 984, 355, 367, 945, 201, 230, 756, 170, 275, 1008, 159 26	<b>Fairview St &amp; 1st St</b> 228, 1159, 167, 192, 1160, 220, 157, 1016, 193, 205, 1422, 142 27
<b>Fairview St &amp; McFadden Ave</b> 220, 1041, 123, 133, 492, 102, 212, 602, 156, 187, 1473, 146 28	<b>Fairview St &amp; Edinger Ave</b> 146, 884, 204, 192, 705, 155, 153, 497, 122, 281, 1549, 135 29	



### 4.3 NO PROJECT ROADWAY SEGMENT LEVEL OF SERVICE

Table 4-1 includes the 24-hour count locations, volumes, and corresponding roadway segment level of service. All study roadway segments currently operate at an acceptable level of service.

**Table 4-1 Existing Year 2013 Roadway Segment LOS**

#	Street Name	Limits	# Lanes	Type	LOS E Capacity	2012 ADT	
						ADT	LOS
1	Harbor Blvd	Trask Ave to Westminster Ave	6D	Major	56,300	49,123	D
2	Harbor Blvd	Westminster Ave to Hazard Ave	6D	Major	56,300	46,044	D
3	Harbor Blvd	Hazard Ave to First St	6D	Major	56,300	47,651	D
4	Harbor Blvd	First St to McFadden Ave	6D	Major	56,300	47,014	D
5	Harbor Blvd	McFadden Ave to Edinger Ave	6D	Major	56,300	45,385	D
6	Harbor Blvd	Edinger Ave to Warner Ave	6D	Major	56,300	40,832	C
7	Harbor Blvd	Segerstrom Ave to MacArthur Blvd	6D	Major	56,300	40,403	C
8	Westminster Ave	Newhope St to Harbor Blvd	6D	Major	56,300	25,111	A
9	Westminster Ave	Fairview St to Harbor Blvd	6D	Major	56,300	29,244	A
10	1st Street	Newhope St to Harbor Blvd	6D	Major	56,300	25,568	A
11	1st Street	Fairview St to Harbor Blvd	6D	Major	56,300	30,221	A
12	McFadden Ave	Newhope St to Harbor Blvd	4D	Secondary	25,000	14,539	A
13	McFadden Ave	Fairview St to Harbor Blvd	4D	Secondary	25,000	19,044	C
14	Edinger Ave	Newhope St to Harbor Blvd	6D	Major	56,300	20,407	A
15	Edinger Ave	Fairview St to Harbor Blvd	6D	Major	56,300	28,992	A

Notes:

- (1) ADT – Average Daily Traffic Volumes
- (2) LOS – Level of Service
- (3) #D – total number of lanes in both directions divided by raised or striped median
- (4) LOS E is based on criteria established by the City of Santa Ana
- (5) **Bold** indicates an unacceptable level of service

#### 4.4 NO PROJECT INTERSECTION LEVEL OF SERVICE

A summary of the AM and PM peak hour level of service analysis results for the year 2013 existing condition are included in Table 4-2. All 29 study intersections currently operate at an acceptable level of service during both peak hour time periods, with the exception of:

- (#12) Harbor Boulevard and Trask Avenue – LOS F (PM)

**Table 4-2: Existing Year 2013 No Project Intersection LOS**

Intersection		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	Euclid St and Westminster Ave	0.798	C	0.810	D
2	Euclid St and McFadden Ave	0.737	C	0.796	C
3	Euclid St and Edinger Ave	0.768	C	0.765	C
4	Newhope St and Westminster Ave	0.696	B	0.851	D
5	Newhope St and Hazard Ave	0.481	A	0.586	A
6	Newhope St and 1st St	0.698	B	0.831	D
7	Newhope St and McFadden Ave	0.689	B	0.774	C
8	Newhope St and Edinger Ave	0.708	C	0.796	C
9	Harbor Blvd and Garden Grove Ave	0.530	A	0.670	B
10	Harbor Blvd and Westbound SR-22 Off-Ramp	25.8 s	C	24.6 s	C
11	Trask Ave and Eastbound SR-22 On-Ramp	9.9 s	A	10.7 s	B
12	Harbor Blvd and Trask Ave	0.888	D	1.058	<b>F</b>
13	Harbor Blvd and Westminster Ave	0.692	B	0.744	C
14	Harbor Blvd and Hazard Ave	0.635	B	0.539	A
15	Harbor Blvd and 5th St	0.672	B	0.648	B
16	Harbor Blvd and 1st St	0.713	C	0.804	D
17	Harbor Blvd and McFadden Ave	0.729	C	0.717	C
18	Harbor Blvd and Edinger Ave	0.672	B	0.683	B
19	Harbor Blvd and Warner Ave	0.668	B	0.729	C
20	Harbor Blvd and Segerstrom Ave/Slater Ave	0.750	C	0.804	D
21	Harbor Blvd and MacArthur Ave	0.741	C	0.767	C
22	Harbor Blvd and Sunflower Ave	0.588	A	0.785	C
23	Harbor Blvd and South Coast Dr	0.459	A	0.587	A
24	Harbor Blvd and Northbound I-405 Off-Ramp	17.6 s	B	20.0 s	B
25	Harbor Blvd and Southbound I-405 Off-Ramp	18.7 s	B	28.0 s	C
26	Fairview St and 17th St	0.754	C	0.824	D
27	Fairview St and 1st St	0.794	C	0.806	D
28	Fairview St and McFadden Ave	0.705	C	0.694	B
29	Fairview St and Edinger Ave	0.733	C	0.649	B

Notes:

- (1) LOS – Level of Service
- (2) V/C – Volume to Capacity
- (3) **Bold** indicates an unacceptable level of service

#### 4.5 EXISTING YEAR 2013 WITH PROJECT

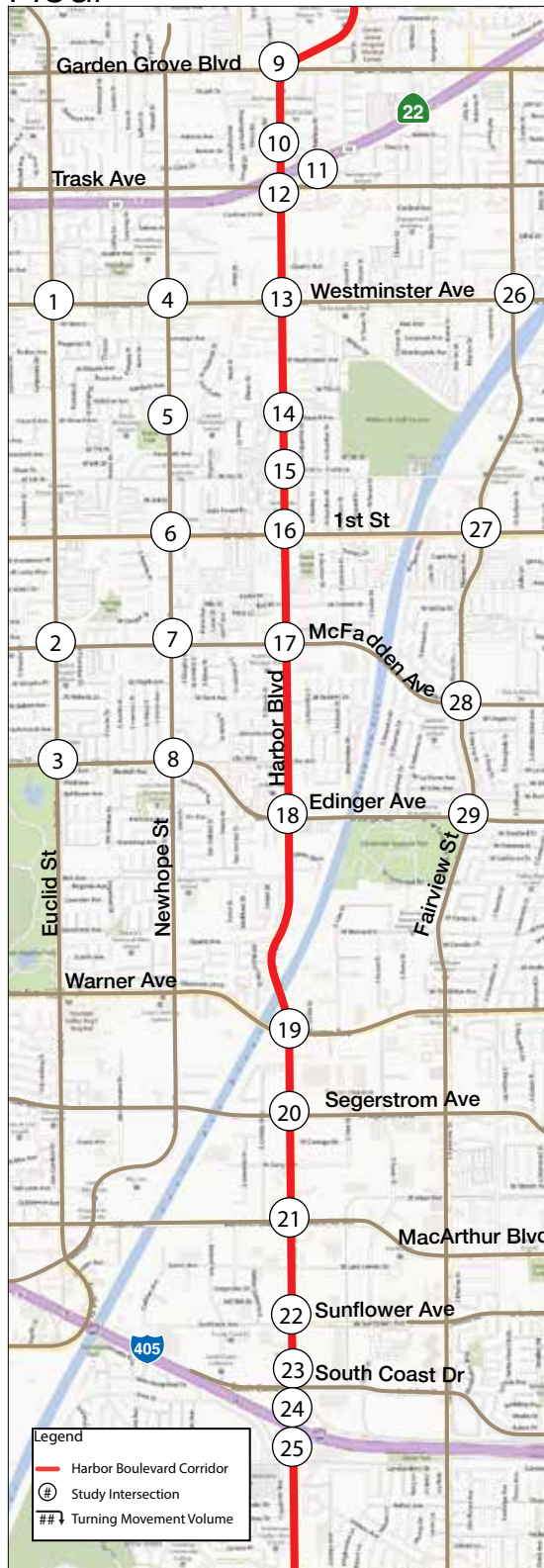
Per CEQA guidelines, an analysis of the Existing Year 2013 With Project condition was conducted. The Existing Year 2013 With Project volumes were derived by applying the project trips to Existing Year 2013 intersection turning movement volumes. The project trips are based on traffic growth between the Future Year 2035 No Project and With Project volumes. The Existing Year 2013 intersection volumes for the AM and PM peak hour are provided in Exhibits 4.4 and 4.5.

# Exhibit 4.4 - Existing Year 2013 With Project Volumes – AM Peak Hour



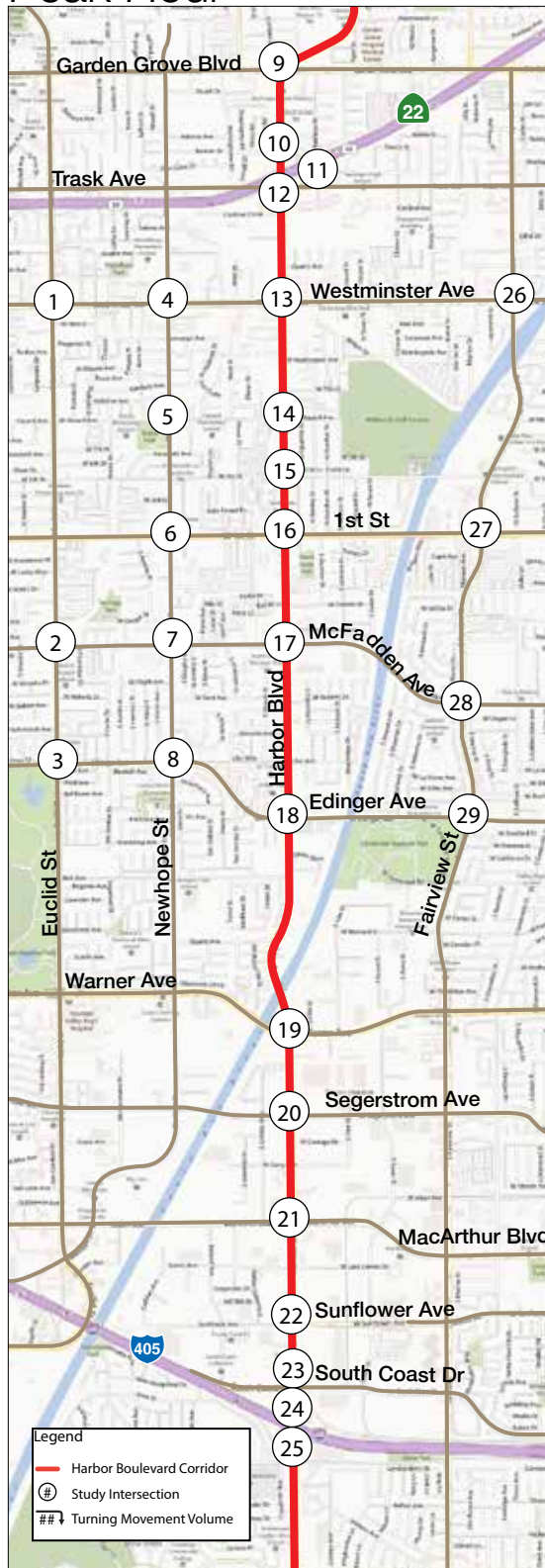
<b>Euclid St &amp; Westminster Ave</b> 94, 1911, 203, 131, 504, 174, 149, 604, 165, 159, 1266, 164 <b>1</b>	<b>Euclid St &amp; McFadden Ave</b> 188, 2094, 92, 114, 348, 74, 197, 420, 621, 131, 1037, 119 <b>2</b>	<b>Euclid St &amp; Edinger Ave</b> 176, 1707, 204, 127, 603, 108, 253, 1018, 414, 151, 900, 110 <b>3</b>
<b>Newhope St &amp; Westminster Ave</b> 106, 918, 213, 136, 469, 163, 124, 781, 125, 120, 714, 261 <b>4</b>	<b>Newhope St &amp; Hazard Ave</b> 86, 914, 44, 62, 186, 71, 75, 74, 140, 101, 689, 74 <b>5</b>	<b>Newhope St &amp; 1st St</b> 230, 962, 142, 143, 653, 195, 152, 636, 80, 108, 562, 165 <b>6</b>
<b>Newhope St &amp; McFadden Ave</b> 105, 1012, 116, 100, 432, 136, 94, 415, 135, 141, 565, 167 <b>7</b>	<b>Newhope St &amp; Edinger Ave</b> 75, 1083, 307, 132, 585, 181, 70, 823, 92, 50, 467, 130 <b>8</b>	<b>Harbor Blvd &amp; Garden Grove Blvd</b> 136, 878, 84, 27, 334, 133, 261, 671, 260, 194, 927, 156 <b>9</b>
<b>Harbor Blvd &amp; Westbound SR-22 Off-Ramp</b> 13, 1385, 96, 57, 795, 50, 141, 54, 1083 <b>10</b>	<b>Trask Ave &amp; Eastbound SR-22 On-Ramp</b> 124, 655, 611, 743 <b>11</b>	<b>Harbor Blvd &amp; Trask Ave</b> 109, 1684, 345, 594, 215, 99, 85, 606, 446, 55, 782, 350 <b>12</b>
<b>Harbor Blvd &amp; Westminster Ave</b> 66, 1460, 188, 189, 541, 251, 121, 667, 19, 163, 1162, 236 <b>13</b>	<b>Harbor Blvd &amp; Hazard Ave</b> 94, 1907, 22, 43, 56, 54, 118, 34, 172, 116, 1210, 6 <b>14</b>	<b>Harbor Blvd &amp; 5th St</b> 54, 1952, 111, 146, 124, 116, 102, 162, 85, 38, 1100, 64 <b>15</b>

# Exhibit 4.4 - Existing Year 2013 With Project Volumes – AM Peak Hour



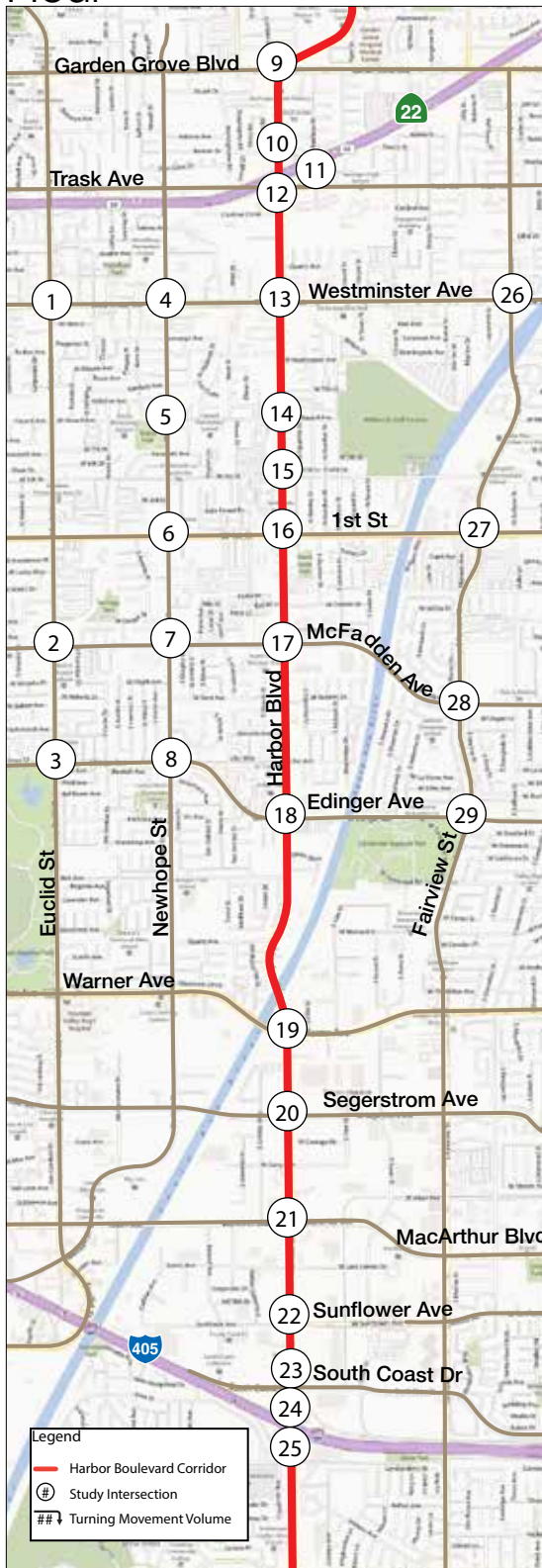
<p><b>Harbor Blvd &amp; 1st St</b></p> <p>96 1985 153</p> <p>88 593 223</p> <p>16</p> <p>152 775 147</p> <p>134 966 137</p>	<p><b>Harbor Blvd &amp; McFadden Ave</b></p> <p>69 1970 155</p> <p>134 352 161</p> <p>17</p> <p>169 403 140</p> <p>127 891 62</p>	<p><b>Harbor Blvd &amp; Edinger Ave</b></p> <p>59 2070 235</p> <p>154 387 188</p> <p>18</p> <p>92 651 208</p> <p>97 782 82</p>
<p><b>Harbor Blvd &amp; Warner Ave</b></p> <p>131 2045 397</p> <p>96 469 139</p> <p>19</p> <p>112 1042 286</p> <p>80 639 129</p>	<p><b>Harbor Blvd &amp; Segerstrom Ave</b></p> <p>112 2098 149</p> <p>94 299 79</p> <p>20</p> <p>81 448 252</p> <p>93 712 69</p>	<p><b>Harbor Blvd &amp; MacArthur Blvd</b></p> <p>154 2147 385</p> <p>116 365 135</p> <p>21</p> <p>111 997 311</p> <p>112 882 93</p>
<p><b>Harbor Blvd &amp; Sunflower Ave</b></p> <p>62 2057 247</p> <p>86 126 101</p> <p>22</p> <p>9 58 29</p> <p>290 1265 135</p>	<p><b>Harbor Blvd &amp; South Coast Dr</b></p> <p>60 1972 72</p> <p>37 134 93</p> <p>23</p> <p>9 29 195</p> <p>246 1757 231</p>	<p><b>Harbor Blvd &amp; Westbound I-405 Off-Ramp</b></p> <p>2269</p> <p>865 493</p> <p>24</p> <p>1383</p>
<p><b>Harbor Blvd &amp; Eastbound I-405 Off-Ramp</b></p> <p>1736</p> <p>383 498</p> <p>25</p> <p>1386</p>	<p><b>Fairview St &amp; 17th St</b></p> <p>126 1009 467</p> <p>242 437 206</p> <p>26</p> <p>234 1083 189</p> <p>153 963 230</p>	<p><b>Fairview St &amp; 1st St</b></p> <p>81 1441 173</p> <p>161 537 190</p> <p>27</p> <p>209 1131 206</p> <p>183 1392 230</p>
<p><b>Fairview St &amp; McFadden Ave</b></p> <p>104 1661 142</p> <p>61 458 194</p> <p>28</p> <p>225 521 121</p> <p>88 1162 114</p>	<p><b>Fairview St &amp; Edinger Ave</b></p> <p>105 1648 208</p> <p>158 585 405</p> <p>29</p> <p>274 692 200</p> <p>201 1035 110</p>	

# Exhibit 4.5 - Existing Year 2013 With Project Volumes – PM Peak Hour



<b>Euclid St &amp; Westminster Ave</b> 120 1475 186 156 685 175 187 666 255 315 1521 137 <b>1</b>	<b>Euclid St &amp; McFadden Ave</b> 137 1100 104 215 456 59 99 417 183 187 1543 87 <b>2</b>	<b>Euclid St &amp; Edinger Ave</b> 200 844 174 162 813 83 196 654 176 448 1507 119 <b>3</b>
<b>Newhope St &amp; Westminster Ave</b> 90 827 112 276 741 227 206 706 182 115 1217 199 <b>4</b>	<b>Newhope St &amp; Hazard Ave</b> 99 774 30 64 129 33 69 170 87 121 1386 64 <b>5</b>	<b>Newhope St &amp; 1st St</b> 132 687 157 217 872 176 188 774 145 150 1027 207 <b>6</b>
<b>Newhope St &amp; McFadden Ave</b> 105 645 142 238 518 118 82 497 65 96 1214 166 <b>7</b>	<b>Newhope St &amp; Edinger Ave</b> 60 559 138 320 752 135 94 746 107 111 1109 149 <b>8</b>	<b>Harbor Blvd &amp; Garden Grove Blvd</b> 192 926 132 91 741 309 376 757 236 326 1149 176 <b>9</b>
<b>Harbor Blvd &amp; Westbound SR-22 Off-Ramp</b> 38 1283 108 89 451 70 83 106 942 <b>10</b>	<b>Trask Ave &amp; Eastbound SR-22 On-Ramp</b> 26 38 653 759 <b>11</b>	<b>Harbor Blvd &amp; Trask Ave</b> 80 1086 276 172 192 74 173 608 467 46 901 214 <b>12</b>
<b>Harbor Blvd &amp; Westminster Ave</b> 172 1361 244 178 803 225 153 667 37 250 1346 261 <b>13</b>	<b>Harbor Blvd &amp; Hazard Ave</b> 121 1543 46 31 86 30 52 47 123 170 1835 48 <b>14</b>	<b>Harbor Blvd &amp; 5th St</b> 126 1327 147 161 273 113 98 154 76 103 1607 107 <b>15</b>

# Exhibit 4.5 - Existing Year 2013 With Project Volumes – PM Peak Hour



<p><b>Harbor Blvd &amp; 1st St</b></p> <p>16</p> <p>125, 1130, 246 (left); 115, 1012, 314 (right)</p> <p>170, 776, 152 (left); 246, 1582, 136 (right)</p>	<p><b>Harbor Blvd &amp; McFadden Ave</b></p> <p>17</p> <p>111, 1245, 218 (left); 125, 480, 175 (right)</p> <p>233, 521, 97 (left); 259, 1707, 120 (right)</p>	<p><b>Harbor Blvd &amp; Edinger Ave</b></p> <p>18</p> <p>90, 1078, 269 (left); 101, 650, 138 (right)</p> <p>170, 764, 183 (left); 213, 1957, 108 (right)</p>
<p><b>Harbor Blvd &amp; Warner Ave</b></p> <p>19</p> <p>95, 727, 192 (left); 260, 1145, 120 (right)</p> <p>107, 634, 196 (left); 346, 1850, 152 (right)</p>	<p><b>Harbor Blvd &amp; Segerstrom Ave</b></p> <p>20</p> <p>72, 961, 84 (left); 272, 846, 71 (right)</p> <p>96, 421, 171 (left); 227, 2071, 62 (right)</p>	<p><b>Harbor Blvd &amp; MacArthur Blvd</b></p> <p>21</p> <p>152, 1077, 167 (left); 337, 1499, 150 (right)</p> <p>136, 466, 204 (left); 505, 1818, 142 (right)</p>
<p><b>Harbor Blvd &amp; Sunflower Ave</b></p> <p>22</p> <p>44, 1525, 114 (left); 201, 361, 365 (right)</p> <p>69, 162, 156 (left); 73, 2091, 145 (right)</p>	<p><b>Harbor Blvd &amp; South Coast Dr</b></p> <p>23</p> <p>157, 1792, 105 (left); 219, 758, 319 (right)</p> <p>19, 42, 380 (left); 318, 2076, 209 (right)</p>	<p><b>Harbor Blvd &amp; Westbound I-405 Off-Ramp</b></p> <p>24</p> <p>2564 (left); 987, 998 (right)</p> <p>1676 (right)</p>
<p><b>Harbor Blvd &amp; Eastbound I-405 Off-Ramp</b></p> <p>25</p> <p>2578 (left); 204, 799 (right)</p> <p>1902 (right)</p>	<p><b>Fairview St &amp; 17th St</b></p> <p>26</p> <p>124, 1022, 382 (left); 399, 977, 181 (right)</p> <p>270, 765, 166 (left); 265, 990, 139 (right)</p>	<p><b>Fairview St &amp; 1st St</b></p> <p>27</p> <p>246, 1151, 164 (left); 190, 1259, 224 (right)</p> <p>169, 1080, 214 (left); 234, 1433, 146 (right)</p>
<p><b>Fairview St &amp; McFadden Ave</b></p> <p>28</p> <p>217, 1057, 126 (left); 145, 503, 107 (right)</p> <p>219, 604, 155 (left); 176, 1493, 144 (right)</p>	<p><b>Fairview St &amp; Edinger Ave</b></p> <p>29</p> <p>142, 902, 213 (left); 192, 735, 167 (right)</p> <p>145, 514, 123 (left); 289, 1561, 147 (right)</p>	

#### 4.6 WITH PROJECT ROADWAY SEGMENT LEVEL OF SERVICE

A summary of the forecast roadway segment volumes and corresponding level of service results for the Existing Year 2013 With Project condition is shown in Table 4-3. All study roadway segments are forecast to operate at an acceptable level of service. The project is not forecast to create deficient level of service for any studied roadway segment.

**Table 4-3 Future Year 2035 With Project Roadway Segment LOS**

#	Street Name	Limits	# Lanes	Type	LOS E Capacity	2013 No Project		2013 With Project	
						ADT	LOS	ADT	LOS
1	Harbor Blvd	Trask Ave to Westminster Ave	6D	Major	50,600	49,123	D	46,698	D
2	Harbor Blvd	Westminster Ave to Hazard Ave	6D	Major	50,600	46,044	D	42,341	C
3	Harbor Blvd	Hazard Ave to First St	6D	Major	50,600	47,651	D	44,033	C
4	Harbor Blvd	First St to McFadden Ave	6D	Major	50,600	47,014	D	46,807	D
5	Harbor Blvd	McFadden Ave to Edinger Ave	6D	Major	50,600	45,385	D	48,517	D
6	Harbor Blvd	Edinger Ave to Warner Ave	6D	Major	50,600	40,832	C	41,367	C
7	Harbor Blvd	Segerstrom Ave to MacArthur Blvd	6D	Major	50,600	40,403	C	39,935	C
8	Westminster Ave	Newhope St to Harbor Blvd	6D	Major	50,600	25,111	A	25,626	A
9	Westminster Ave	Fairview St to Harbor Blvd	6D	Major	50,600	29,244	A	28,656	A
10	1st Street	Newhope St to Harbor Blvd	6D	Major	50,600	25,568	A	26,940	A
11	1st Street	Fairview St to Harbor Blvd	6D	Major	50,600	30,221	A	31,760	A
12	McFadden Ave	Newhope St to Harbor Blvd	4D	Secondary	22,500	14,539	A	15,327	B
13	McFadden Ave	Fairview St to Harbor Blvd	4D	Secondary	22,500	19,044	C	16,612	B
14	Edinger Ave	Newhope St to Harbor Blvd	6D	Major	50,600	20,407	A	20,871	A
15	Edinger Ave	Fairview St to Harbor Blvd	6D	Major	50,600	28,992	A	34,886	B

Notes:

- (1) ADT – Average Daily Traffic Volumes
- (2) LOS – Level of Service
- (3) V/C – Volume to Capacity
- (4) #D – total number of lanes in both directions divided by raised or striped median
- (5) LOS E is based on criteria established by the City of Santa Ana
- (6) **Bold** indicates an unacceptable level of service

#### 4.7 WITH PROJECT INTERSECTION LEVEL OF SERVICE

A summary of the AM and PM peak hour intersection level of service analysis results for the Existing Year 2013 With Project condition is included in Tables 4-4 and 4-5. Intersections are considered significantly impacted if an unacceptable peak hour level of service is created by the project or if the project increases the volume to capacity ratio at the study intersection by 1% of capacity (0.010) or greater if the intersection already operates at an unacceptable level.

All intersections are forecast to operate at acceptable levels of service if the project were implemented today.



**Table 4-4: Existing Year 2013 With Project Intersection LOS – AM Peak Hour**

Intersection		No Project		With Project		Change in V/C	Impact
		V/C	LOS	V/C	LOS		
1	Euclid St and Westminster Ave	0.798	C	0.786	C	-0.012	No
2	Euclid St and McFadden Ave	0.737	C	0.819	D	0.082	No
3	Euclid St and Edinger Ave	0.768	C	0.806	D	0.038	No
4	Newhope St and Westminster Ave	0.696	B	0.728	C	0.032	No
5	Newhope St and Hazard Ave	0.481	A	0.500	A	0.019	No
6	Newhope St and 1st St	0.698	B	0.711	C	0.013	No
7	Newhope St and McFadden Ave	0.689	B	0.687	B	-0.002	No
8	Newhope St and Edinger Ave	0.708	C	0.751	C	0.043	No
9	Harbor Blvd and Garden Grove Ave	0.530	A	0.529	A	-0.001	No
10	Harbor Blvd and Westbound SR-22 Off-Ramp	25.8 s	C	25.8 s	C	0.0 s	No
11	Trask Ave and Eastbound SR-22 On-Ramp	9.9 s	A	9.9 s	A	0.0 s	No
12	Harbor Blvd and Trask Ave	0.888	D	0.859	D	-0.029	No
13	Harbor Blvd and Westminster Ave	0.692	B	0.682	B	-0.010	No
14	Harbor Blvd and Hazard Ave	0.635	B	0.631	B	-0.004	No
15	Harbor Blvd and 5th St	0.672	B	0.669	B	-0.003	No
16	Harbor Blvd and 1st St	0.713	C	0.735	C	0.022	No
17	Harbor Blvd and McFadden Ave	0.729	C	0.735	C	0.006	No
18	Harbor Blvd and Edinger Ave	0.672	B	0.674	B	0.002	No
19	Harbor Blvd and Warner Ave	0.668	B	0.674	B	0.006	No
20	Harbor Blvd and Segerstrom Ave/Slater Ave	0.750	C	0.758	C	0.008	No
21	Harbor Blvd and MacArthur Ave	0.741	C	0.736	C	-0.005	No
22	Harbor Blvd and Sunflower Ave	0.588	A	0.586	A	-0.002	No
23	Harbor Blvd and South Coast Dr	0.459	A	0.466	A	0.007	No
24	Harbor Blvd and Northbound I-405 Off-Ramp	17.6 s	B	17.4 s	B	-0.2 s	No
25	Harbor Blvd and Southbound I-405 Off-Ramp	18.7 s	B	18.5 s	B	-0.2 s	No
26	Fairview St and 17th St	0.754	C	0.767	C	0.013	No
27	Fairview St and 1st St	0.794	C	0.829	D	0.035	No
28	Fairview St and McFadden Ave	0.705	C	0.030	A	-0.675	No
29	Fairview St and Edinger Ave	0.733	C	0.740	C	0.007	No

Notes:

- (1) LOS – Level of Service
- (2) V/C – Volume to Capacity
- (3) **Bold** indicates an unacceptable level of service

**Table 4-5: Existing Year 2013 With Project Intersection LOS – PM Peak Hour**

Intersection		No Project		With Project		Change in V/C	Impact
		V/C	LOS	V/C	LOS		
1	Euclid St and Westminster Ave	0.810	D	0.830	D	0.020	No
2	Euclid St and McFadden Ave	0.796	C	0.790	C	-0.006	No
3	Euclid St and Edinger Ave	0.765	C	0.755	C	-0.010	No
4	Newhope St and Westminster Ave	0.851	D	0.853	D	0.002	No
5	Newhope St and Hazard Ave	0.586	A	0.573	A	-0.013	No
6	Newhope St and 1st St	0.831	D	0.828	D	-0.003	No
7	Newhope St and McFadden Ave	0.774	C	0.807	D	0.033	No
8	Newhope St and Edinger Ave	0.796	C	0.783	C	-0.013	No
9	Harbor Blvd and Garden Grove Ave	0.670	B	0.689	B	0.019	No
10	Harbor Blvd and Westbound SR-22 Off-Ramp	24.6 s	C	23.0 s	C	-1.6 s	No
11	Trask Ave and Eastbound SR-22 On-Ramp	10.7 s	B	2.1 s	A	-8.6 s	No
12	Harbor Blvd and Trask Ave	1.058	<b>F</b>	0.687	B	-0.371	No
13	Harbor Blvd and Westminster Ave	0.744	C	0.775	C	0.031	No
14	Harbor Blvd and Hazard Ave	0.539	A	0.559	A	0.020	No
15	Harbor Blvd and 5th St	0.648	B	0.671	B	0.023	No
16	Harbor Blvd and 1st St	0.804	D	0.803	D	-0.001	No
17	Harbor Blvd and McFadden Ave	0.717	C	0.738	C	0.021	No
18	Harbor Blvd and Edinger Ave	0.683	B	0.708	C	0.025	No
19	Harbor Blvd and Warner Ave	0.729	C	0.735	C	0.006	No
20	Harbor Blvd and Segerstrom Ave/Slater Ave	0.804	D	0.806	D	0.002	No
21	Harbor Blvd and MacArthur Ave	0.767	C	0.788	C	0.021	No
22	Harbor Blvd and Sunflower Ave	0.785	C	0.794	C	0.009	No
23	Harbor Blvd and South Coast Dr	0.587	A	0.594	A	0.007	No
24	Harbor Blvd and Northbound I-405 Off-Ramp	20.0 s	B	20.3 s	C	0.3 s	No
25	Harbor Blvd and Southbound I-405 Off-Ramp	28.0 s	C	28.0 s	C	0.0 s	No
26	Fairview St and 17th St	0.824	D	0.866	D	0.042	No
27	Fairview St and 1st St	0.806	D	0.847	D	0.041	No
28	Fairview St and McFadden Ave	0.694	B	0.711	C	0.017	No
29	Fairview St and Edinger Ave	0.649	B	0.661	B	0.012	No

Notes:

- (1) LOS – Level of Service
- (2) V/C – Volume to Capacity
- (3) **Bold** indicates an unacceptable level of service

## 5.0 Year 2035 Forecast Modeling

### 5.1 ORANGE COUNTY TRANSPORTATION AUTHORITY MODEL (OCTAM)

The Orange County Transportation Authority (OCTA) is responsible for regional transportation modeling in Orange County. OCTA's role as the regional modeling agency is to evaluate multi-modal transportation alternatives to support regional planning activities. OCTAM is a regional model that is based on the traditional four-step sequential modeling methodology with "feedback loops" procedures to insure internal modeling consistency. The model incorporates multi-modal analytical capabilities to analyze the following modes of travel: local and express bus transit, urban rail, commuter rail, toll roads, carpools, truck traffic, as well as non-motorized transportation which includes pedestrian and bicycle trips. The model responds to changes in land use types, household characteristics, transportation infrastructure, and travel costs such as transit fares, parking costs, tolls, and auto operating costs.

### 5.2 TRAFFIC VOLUME FORECASTS

The Future Year 2035 volumes were derived based on existing peak hour count data and forecast link volumes obtained from the Orange County Transportation Analysis Model (OCTAM 3.4). OCTAM 3.4 is the accepted regional model for forecasting travel demand for Orange County. Growth factors for each intersection approach and departure were interpolated from OCTAM 3.4 link plots for 2010 and 2035. These growth factors were then applied to existing counts to forecast future turning movement volumes at each of the study intersections.

Forecast roadway segment volumes were also derived based on existing average daily traffic (ADT) volumes and forecast ADT link volumes obtained from OCTAM 3.4. Growth factors for each study roadway segment were interpolated from OCTAM 3.4 link plots for 2010 and 2035. The growth factors were then applied to existing ADT counts to forecast future roadway segment ADT.

### 5.3 ROADWAY NETWORK ASSUMPTIONS

The Future Year 2035 roadway network assumptions is based on buildout of roadways consistent with the City of Santa Ana's Master Plan of Streets and Highways (1998) and OCTA's Master Plan of Arterial Highways. Within the study area, most of these roadway assumptions are consistent with existing roadway configurations, with the exception of the extension of Santa Ana Boulevard as a four-lane (two lanes in each direction) arterial street along the Pacific Electric Right-of-Way from Fairview Street to SR-22 Freeway. The extension of Santa Ana Boulevard would pass through the intersection of Harbor Boulevard and Westminster Avenue as a grade-separated overpass. Existing intersection geometry at Harbor Boulevard and Westminster Avenue is expected to remain the same.

The Future Year 2035 network also consists of freeway and transit improvements considered in the Preferred Alternative of OCTA's 2010 Long Range Transportation Plan (LRTP)

- Santa Ana Fixed Guideway – The Santa Ana Fixed Guideway is a proposed streetcar service that would travel between the Santa Ana Regional Transportation Center (SARTC) and Downtown Garden Grove. The streetcar is proposed to travel along an exclusive guideway or path on rails that are embedded in the pavement. There are currently 2 alignment options being evaluated, but the streetcar is proposed to travel primarily along Santa Ana Boulevard and the Pacific Electric Right-of-Way (PEROW).
- Bus Rapid Transit (BRT) - These improvements include the Bus Rapid Transit projects along Harbor Boulevard, Bristol Street, and Westminster Avenue/17<sup>th</sup> Street. BRT is a bus service whose design features, stops and schedule provide faster, more efficient transit service than local bus routes.

## 6.0 Future Year 2035 No Project

The Future Year 2035 No Project condition is based on existing land uses within the project study area plus cumulative projects and ambient area-wide traffic growth. The cumulative projects and ambient area-wide traffic growth is based on Orange County Projects (OCP) data that is updated every four years and accounted for in OCTA's model. This scenario will serve as a base for comparison and establish impacts for the With Project condition.

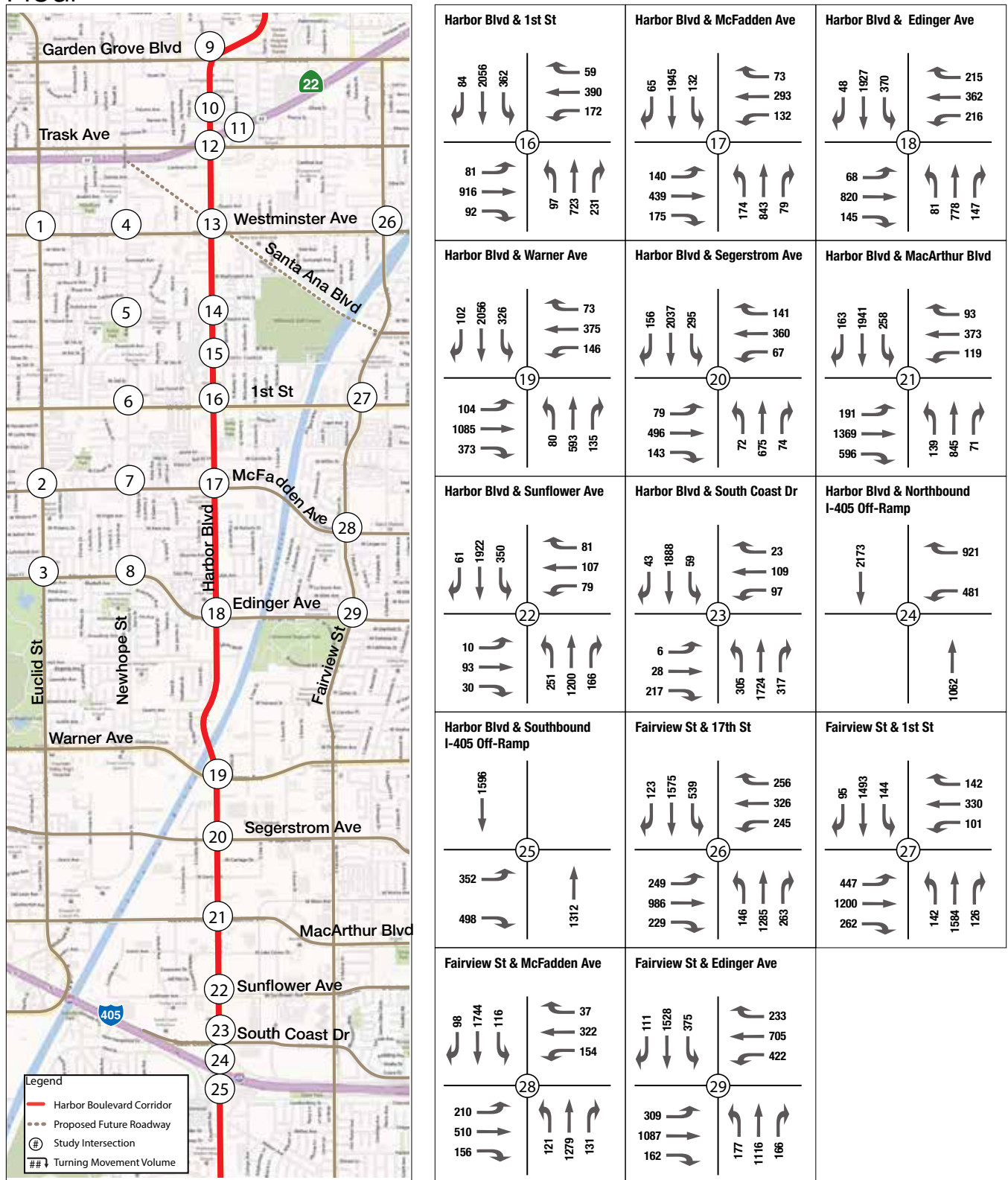
The Future Year 2035 No Project intersection geometry and control is consistent with the Existing Year 2013 intersection geometry and control. The OCTAM Year 2035 traffic forecasts assume implementation of projects consistent with the Year 2035 Preferred Plan from the OCTA 2010 Long Range Transportation Plan and the completion of the new four-lane arterial roadway along the Pacific Electric Right-of-Way between SR-22 and Santa Ana Boulevard. The Future Year 2035 No Project volumes for the AM peak hour are shown in Exhibit 6.1 and the PM peak hour volumes are shown in Exhibit 6.2.

# Exhibit 6.1 - Future Year 2035 No Project Volumes – AM Peak Hour

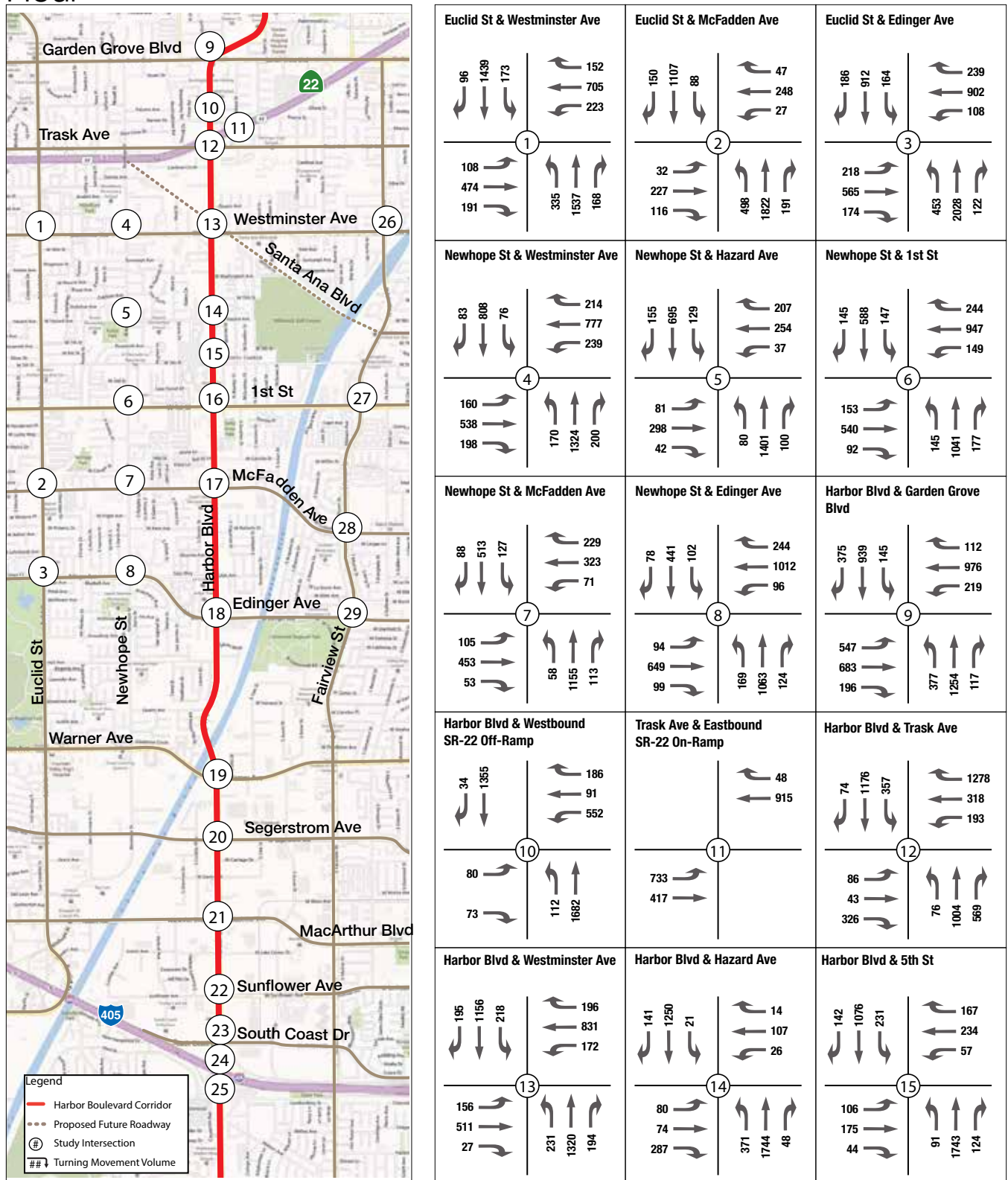


<b>Euclid St &amp; Westminster Ave</b> 49 1977 121 76 296 198 143 680 361 148 1163 174 <b>1</b>	<b>Euclid St &amp; McFadden Ave</b> 124 2439 32 90 314 119 240 424 906 133 994 75 <b>2</b>	<b>Euclid St &amp; Edinger Ave</b> 200 3008 189 114 528 142 199 664 457 139 852 88 <b>3</b>
<b>Newhope St &amp; Westminster Ave</b> 91 856 259 124 295 112 141 836 104 76 647 221 <b>4</b>	<b>Newhope St &amp; Hazard Ave</b> 80 746 165 158 325 117 100 354 121 63 539 139 <b>5</b>	<b>Newhope St &amp; 1st St</b> 161 843 134 95 416 154 138 752 85 86 475 179 <b>6</b>
<b>Newhope St &amp; McFadden Ave</b> 103 838 137 102 433 115 83 435 99 119 481 168 <b>7</b>	<b>Newhope St &amp; Edinger Ave</b> 98 797 189 69 516 96 74 883 101 97 448 108 <b>8</b>	<b>Harbor Blvd &amp; Garden Grove Blvd</b> 178 868 91 25 298 85 379 733 261 183 929 119 <b>9</b>
<b>Harbor Blvd &amp; Westbound SR-22 Off-Ramp</b> 15 1284 121 61 714 63 128 48 1106 <b>10</b>	<b>Trask Ave &amp; Eastbound SR-22 On-Ramp</b> 110 599 576 863 <b>11</b>	<b>Harbor Blvd &amp; Trask Ave</b> 53 1551 316 734 214 197 64 706 519 35 620 436 <b>12</b>
<b>Harbor Blvd &amp; Westminster Ave</b> 72 1455 221 164 382 160 144 760 16 105 952 186 <b>13</b>	<b>Harbor Blvd &amp; Hazard Ave</b> 223 1713 10 15 101 35 165 44 459 313 835 4 <b>14</b>	<b>Harbor Blvd &amp; 5th St</b> 66 2169 130 208 144 122 121 144 72 21 818 33 <b>15</b>

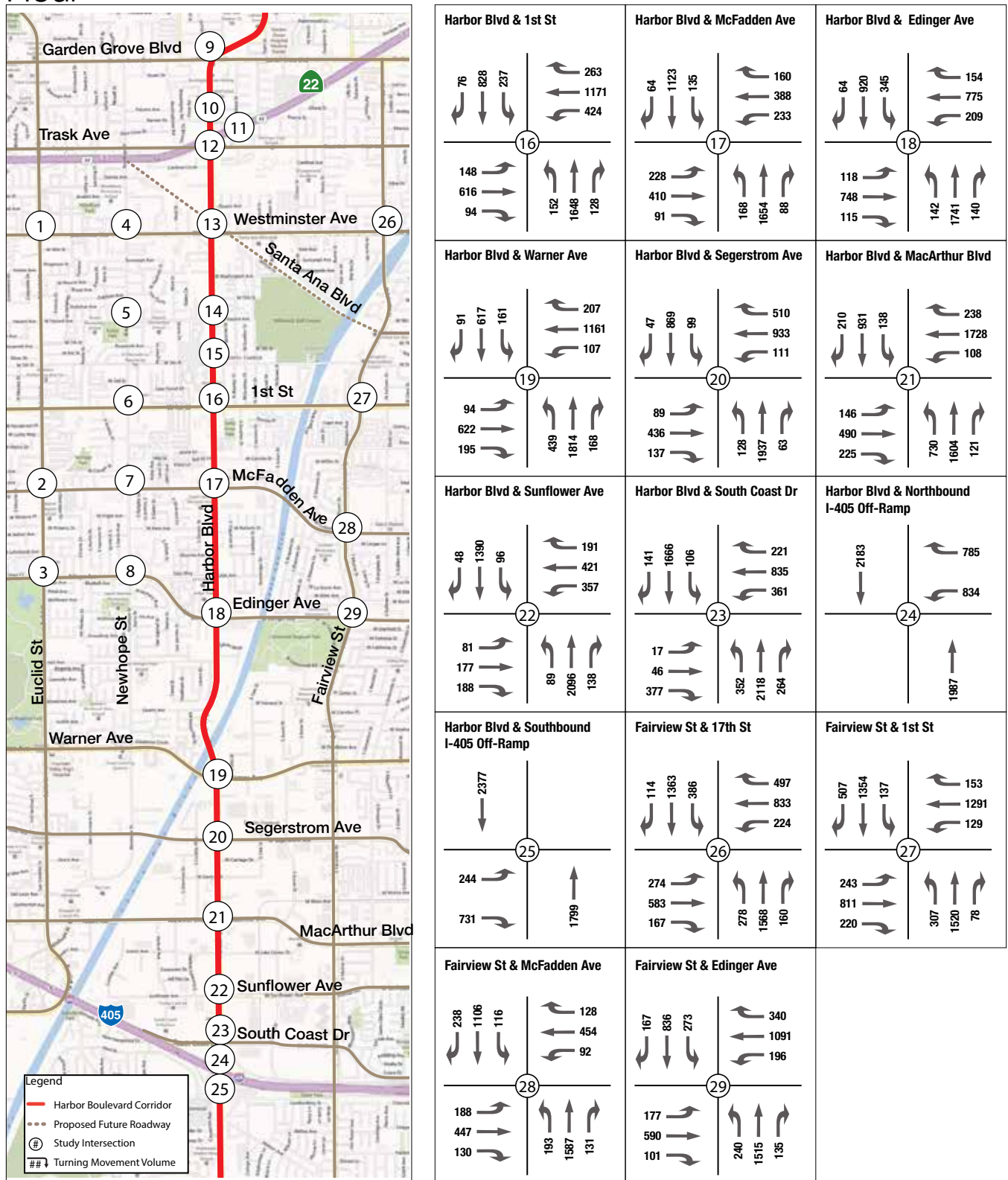
# Exhibit 6.1 - Future Year 2035 No Project Volumes – AM Peak Hour



# Exhibit 6.2 - Future Year 2035 No Project Volumes – PM Peak Hour



# Exhibit 6.2 - Future Year 2035 No Project Volumes – PM Peak Hour





## 6.1 ROADWAY SEGMENT LEVEL OF SERVICE

A summary of the forecast roadway segment volumes and corresponding level of service results for the Future Year 2035 No Project condition is shown in Table 6-1. All study roadway segments are forecast to operate at an acceptable level of service.

**Table 6-1 Future Year 2035 No Project Roadway Segment LOS**

#	Street Name	Limits	# Lanes	Type	LOS E Capacity	2035 NP ADT	
						ADT	LOS
1	Harbor Blvd	Trask Ave to Westminster Ave	6D	Major	50,600	44,687	C
2	Harbor Blvd	Westminster Ave to Hazard Ave	6D	Major	50,600	40,641	C
3	Harbor Blvd	Hazard Ave to First St	6D	Major	50,600	42,749	C
4	Harbor Blvd	First St to McFadden Ave	6D	Major	50,600	44,443	C
5	Harbor Blvd	McFadden Ave to Edinger Ave	6D	Major	50,600	45,349	D
6	Harbor Blvd	Edinger Ave to Warner Ave	6D	Major	50,600	39,552	B
7	Harbor Blvd	Segerstrom Ave to MacArthur Blvd	6D	Major	50,600	35,941	B
8	Westminster Ave	Newhope St to Harbor Blvd	6D	Major	50,600	26,594	A
9	Westminster Ave	Fairview St to Harbor Blvd	6D	Major	50,600	26,526	A
10	1st Street	Newhope St to Harbor Blvd	6D	Major	50,600	24,887	A
11	1st Street	Fairview St to Harbor Blvd	6D	Major	50,600	30,343	A
12	McFadden Ave	Newhope St to Harbor Blvd	4D	Secondary	22,500	14,194	A
13	McFadden Ave	Fairview St to Harbor Blvd	4D	Secondary	22,500	16,345	B
14	Edinger Ave	Newhope St to Harbor Blvd	6D	Major	50,600	20,720	A
15	Edinger Ave	Fairview St to Harbor Blvd	6D	Major	50,600	33,761	A

Notes:

- (1) ADT – Average Daily Traffic Volumes
- (2) LOS – Level of Service
- (3) V/C – Volume to Capacity
- (4) #D – total number of lanes in both directions divided by raised or striped median
- (5) LOS E is based on criteria established by the City of Santa Ana
- (6) **Bold** indicates an unacceptable level of service

## 6.2 INTERSECTION LEVEL OF SERVICE

A summary of the AM and PM peak hour level of service analysis results for the Future Year 2035 No Project condition is provided in Table 6-2.

The following is a list of intersections that are forecast to operate at an unacceptable level of service for the Future Year 2035 No Project condition:

- (#2) Euclid St and McFadden Ave – LOS F (AM)
- (#3) Euclid St and Edinger Ave – LOS F/E (AM/PM)
- (#12) Harbor Blvd and Trask Ave – LOS E/F (AM/PM)
- (#14) Harbor Blvd and Hazard Ave – LOS E (AM)
- (#26) Fairview St and 17<sup>th</sup> St – LOS F (PM)
- (#27) Fairview St and 1<sup>st</sup> St – LOS F (PM)

**Table 6-2: Future Year 2035 No Project Intersection LOS**

Intersection		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	Euclid St and Westminster Ave	0.864	D	0.807	D
2	Euclid St and McFadden Ave	1.258	<b>F</b>	0.715	C
3	Euclid St and Edinger Ave	1.086	<b>F</b>	0.901	<b>E</b>
4	Newhope St and Westminster Ave	0.699	B	0.830	D
5	Newhope St and Hazard Ave	0.537	A	0.737	C
6	Newhope St and 1st St	0.630	B	0.816	D
7	Newhope St and McFadden Ave	0.607	B	0.714	C
8	Newhope St and Edinger Ave	0.660	B	0.791	C
9	Harbor Blvd and Garden Grove Ave	0.518	A	0.868	D
10	Harbor Blvd and Westbound SR-22 Off-Ramp	25.4 s	C	24.7 s	C
11	Trask Ave and Eastbound SR-22 On-Ramp	9.0 s	A	12.9 s	B
12	Harbor Blvd and Trask Ave	0.969	<b>E</b>	1.431	<b>F</b>
13	Harbor Blvd and Westminster Ave	0.630	B	0.712	C
14	Harbor Blvd and Hazard Ave	0.908	<b>E</b>	0.717	C
15	Harbor Blvd and 5th St	0.690	B	0.737	C
16	Harbor Blvd and 1st St	0.728	C	0.863	D
17	Harbor Blvd and McFadden Ave	0.748	C	0.680	B
18	Harbor Blvd and Edinger Ave	0.672	B	0.694	B
19	Harbor Blvd and Warner Ave	0.707	C	0.720	C
20	Harbor Blvd and Segerstrom Ave/Slater Ave	0.721	C	0.853	D
21	Harbor Blvd and MacArthur Ave	0.871	D	0.841	D
22	Harbor Blvd and Sunflower Ave	0.552	A	0.815	D
23	Harbor Blvd and South Coast Dr	0.480	A	0.611	B
24	Harbor Blvd and Northbound I-405 Off-Ramp	18.1 s	B	18.5 s	B
25	Harbor Blvd and Southbound I-405 Off-Ramp	18.7 s	B	24.9 s	C
26	Fairview St and 17th St	0.893	D	1.064	<b>F</b>
27	Fairview St and 1st St	0.797	C	1.032	<b>F</b>
28	Fairview St and McFadden Ave	0.722	C	0.683	B
29	Fairview St and Edinger Ave	0.789	C	0.783	C

Notes:

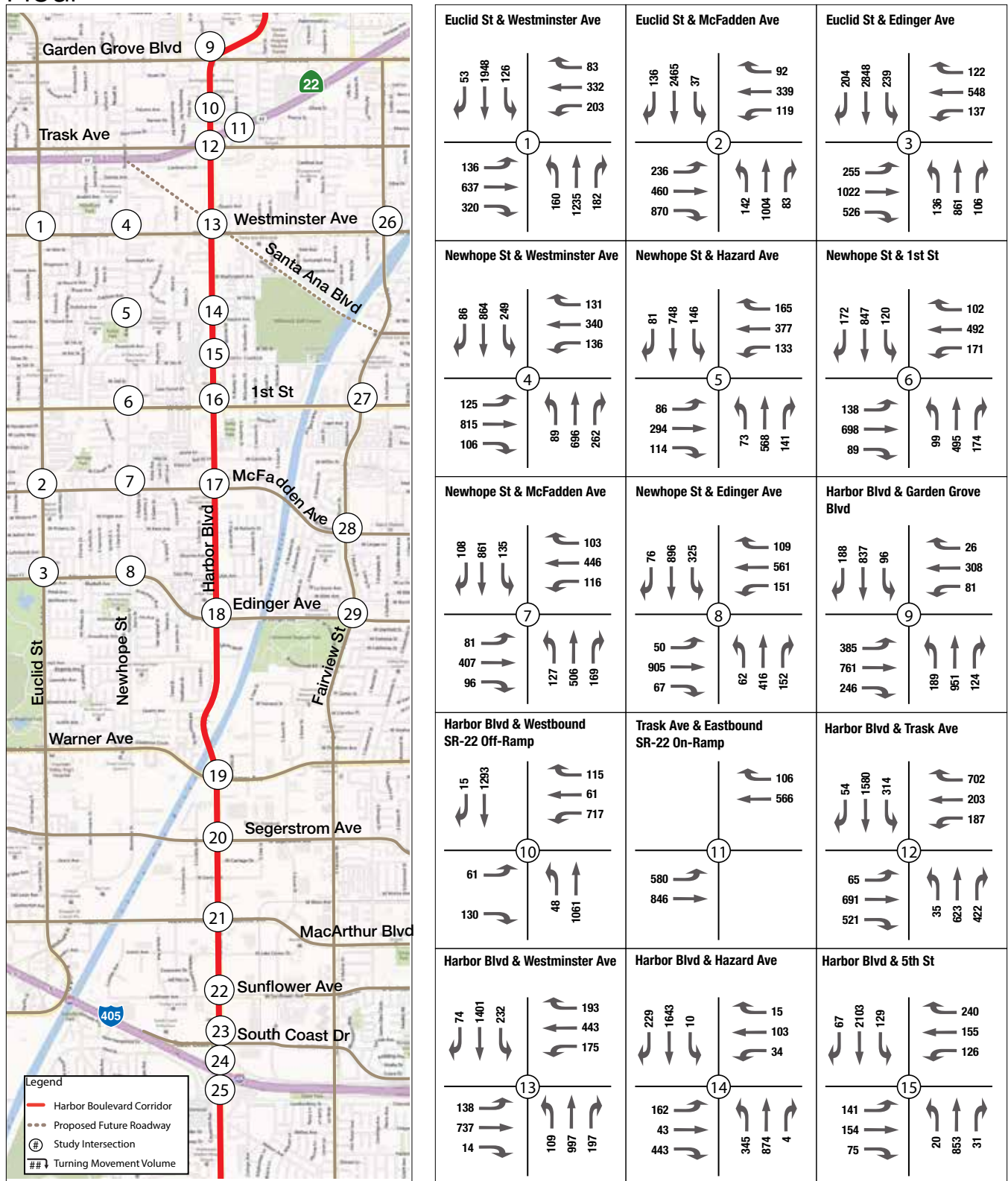
- (1) LOS – Level of Service
- (2) V/C – Volume to Capacity
- (3) **Bold** indicates an unacceptable level of service

## 7.0 Future Year 2035 With Project

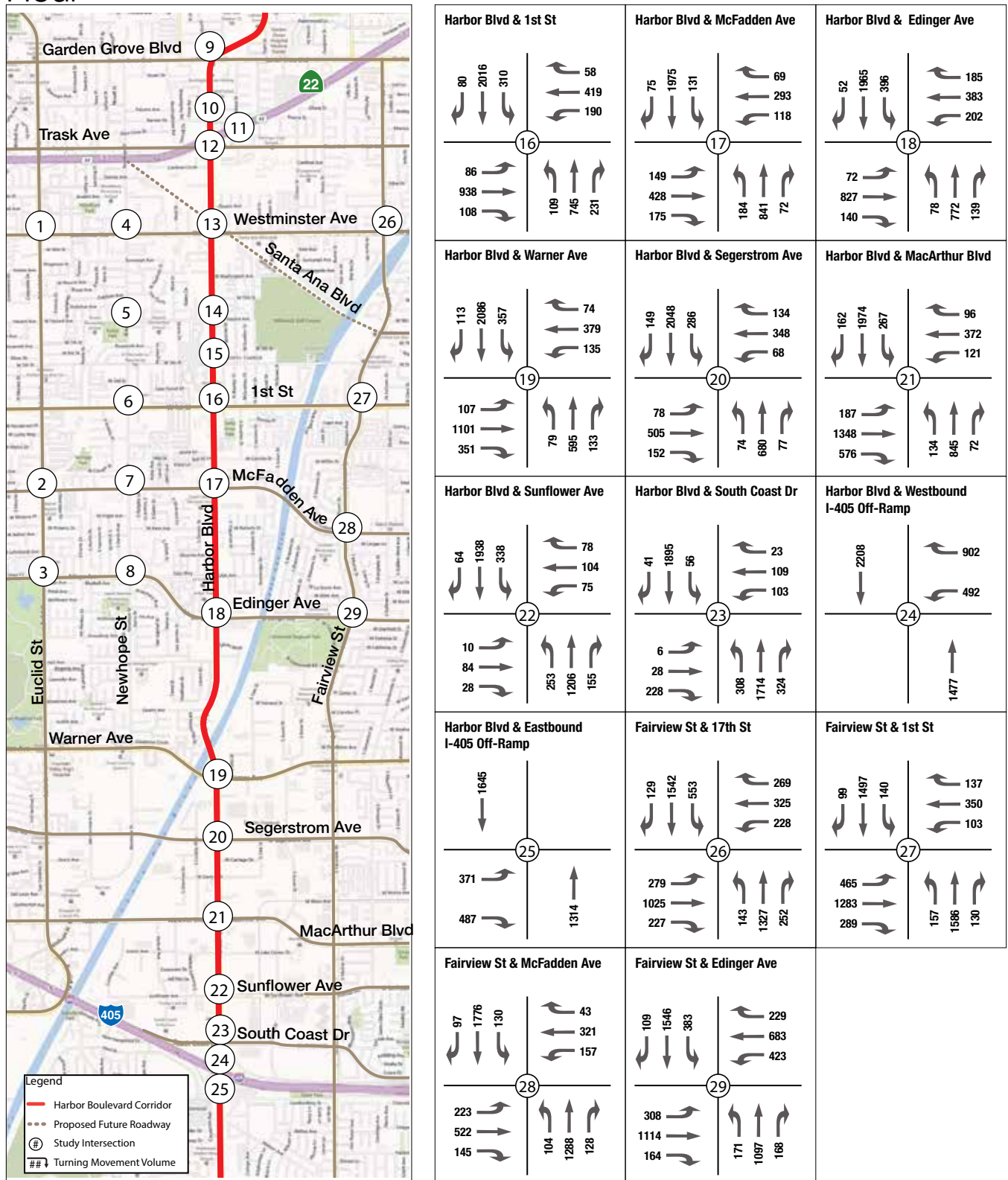
The Future Year 2035 With Project condition is based on the proposed Harbor Corridor Plan (HCP) described in Section 2. The HCP would replace the existing land uses with approximately 4,600 residential units and 2 million square feet of commercial space to be located in the plan area. The HCP is forecast to generate 54,357 daily trips, a net increase of 31,911 daily trips from the No Project condition.

Associated lane geometry and improvements are consistent with the Future Year 2013 No Project intersection geometry and control. Separate OCTAM 3.4 forecasts were produced for the With Project condition in order to understand traffic changes resulting from the proposed land uses in the HCP. The Future Year 2035 With Project AM and PM peak hour intersection turning movement volumes are shown in Exhibits 7.1 and 7.2.

# Exhibit 7.1 -Future Year 2035 With Project Volumes – AM Peak Hour



# Exhibit 7.1 - Existing Year 2035 With Project Volumes – AM Peak Hour

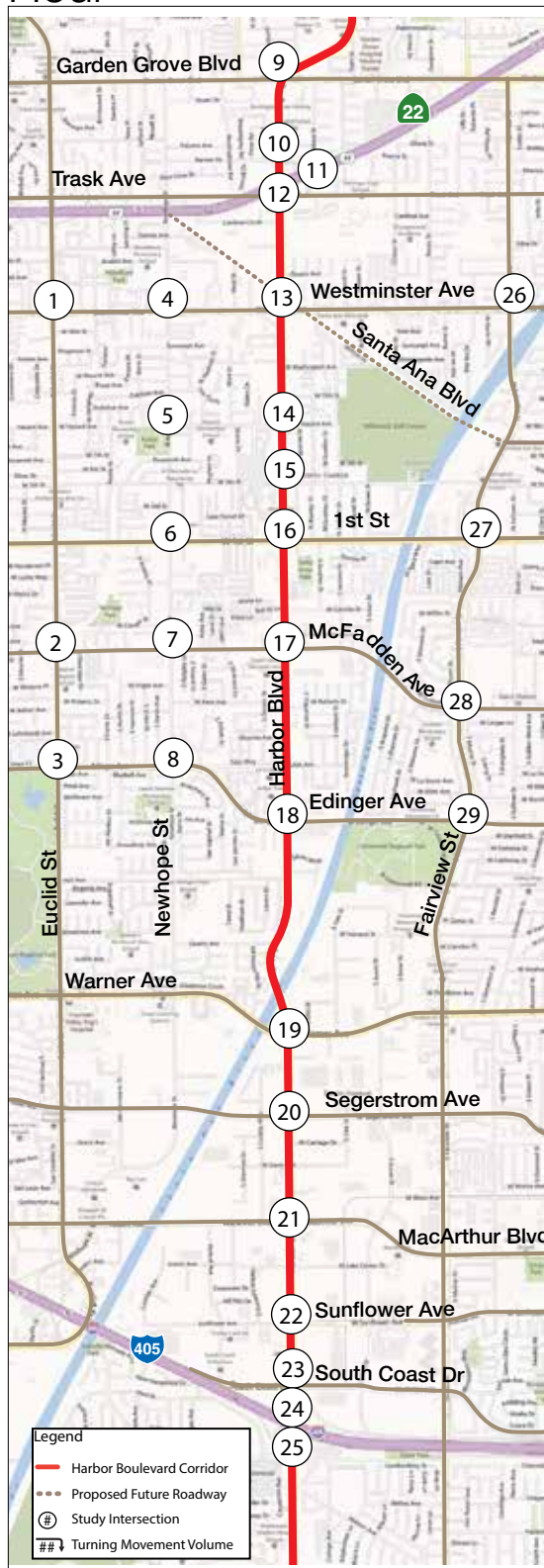


# Exhibit 7.2 -Future Year 2035 With Project Volumes – PM Peak Hour



<b>Euclid St &amp; Westminster Ave</b> 100 1498 183 147 689 218 111 502 198 340 1543 174	<b>Euclid St &amp; McFadden Ave</b> 170 1108 81 46 263 25 39 274 135 517 1766 183	<b>Euclid St &amp; Edinger Ave</b> 193 933 165 234 863 102 232 571 179 437 1989 114
<b>Newhope St &amp; Westminster Ave</b> 73 829 81 215 769 276 151 608 215 166 1308 236	<b>Newhope St &amp; Hazard Ave</b> 140 689 123 197 247 40 81 323 48 81 1389 107	<b>Newhope St &amp; 1st St</b> 134 613 137 210 910 162 158 624 120 165 1064 202
<b>Newhope St &amp; McFadden Ave</b> 86 558 142 248 321 79 109 488 55 55 1198 122	<b>Newhope St &amp; Edinger Ave</b> 50 483 121 350 857 141 88 666 94 99 1053 135	<b>Harbor Blvd &amp; Garden Grove Blvd</b> 389 983 147 115 980 234 564 708 211 372 1263 119
<b>Harbor Blvd &amp; Westbound SR-22 Off-Ramp</b> 38 1172 116 89 410 74 79 107 1031	<b>Trask Ave &amp; Eastbound SR-22 On-Ramp</b> 21 388 605 591	<b>Harbor Blvd &amp; Trask Ave</b> 35 1031 271 700 95 105 114 563 431 29 711 347
<b>Harbor Blvd &amp; Westminster Ave</b> 202 1199 253 193 841 175 157 594 28 225 1253 212	<b>Harbor Blvd &amp; Hazard Ave</b> 144 1310 20 12 108 27 75 74 315 410 1702 50	<b>Harbor Blvd &amp; 5th St</b> 183 1088 253 165 267 51 121 198 46 103 1688 119

# Exhibit 7.2 -Future Year 2035 With Project Volumes – PM Peak Hour



<p><b>Harbor Blvd &amp; 1st St</b></p> <p>77, 862, 228, 235, 1204, 450, 150, 683, 113, 173, 1637, 139</p> <p>16</p>	<p><b>Harbor Blvd &amp; McFadden Ave</b></p> <p>75, 1193, 111, 130, 398, 218, 270, 434, 124, 216, 1695, 80</p> <p>17</p>	<p><b>Harbor Blvd &amp; Edinger Ave</b></p> <p>72, 969, 371, 166, 797, 200, 131, 752, 113, 143, 1841, 134</p> <p>18</p>
<p><b>Harbor Blvd &amp; Warner Ave</b></p> <p>93, 645, 166, 215, 1161, 110, 96, 618, 196, 427, 1836, 165</p> <p>19</p>	<p><b>Harbor Blvd &amp; Segerstrom Ave</b></p> <p>47, 882, 100, 495, 913, 110, 88, 432, 137, 132, 1970, 65</p> <p>20</p>	<p><b>Harbor Blvd &amp; MacArthur Blvd</b></p> <p>215, 948, 139, 249, 1783, 111, 148, 484, 224, 741, 1646, 122</p> <p>21</p>
<p><b>Harbor Blvd &amp; Sunflower Ave</b></p> <p>50, 1404, 104, 195, 428, 349, 80, 181, 179, 91, 2139, 144</p> <p>22</p>	<p><b>Harbor Blvd &amp; South Coast Dr</b></p> <p>138, 1678, 101, 216, 829, 369, 16, 43, 376, 367, 2175, 266</p> <p>23</p>	<p><b>Harbor Blvd &amp; Westbound I-405 Off-Ramp</b></p> <p>2198, 803, 853, 2056</p> <p>24</p>
<p><b>Harbor Blvd &amp; Eastbound I-405 Off-Ramp</b></p> <p>2387, 245, 728, 1815</p> <p>25</p>	<p><b>Fairview St &amp; 17th St</b></p> <p>134, 1401, 413, 529, 865, 204, 314, 592, 163, 268, 1550, 140</p> <p>26</p>	<p><b>Fairview St &amp; 1st St</b></p> <p>525, 1346, 134, 151, 1390, 133, 255, 875, 241, 336, 1531, 81</p> <p>27</p>
<p><b>Fairview St &amp; McFadden Ave</b></p> <p>235, 1122, 119, 140, 465, 97, 195, 449, 129, 182, 1607, 129</p> <p>28</p>	<p><b>Fairview St &amp; Edinger Ave</b></p> <p>163, 844, 282, 340, 1121, 208, 169, 607, 102, 248, 1527, 147</p> <p>29</p>	



## 7.1 ROADWAY SEGMENT LEVEL OF SERVICE

A summary of the forecast roadway segment volumes and corresponding level of service results for the Future Year 2035 With Project condition is shown in Table 7-1. All study roadway segments are forecast to operate at an acceptable level of service. The project is not forecast to create deficient level of service for any studied roadway segment.

**Table 7-1 Future Year 2035 With Project Roadway Segment LOS**

#	Street Name	Limits	# Lanes	Type	LOS E Capacity	2035 No Project		2035 With Project	
						ADT	LOS	ADT	LOS
1	Harbor Blvd	Trask Ave to Westminster Ave	6D	Major	50,600	44,687	C	42,262	C
2	Harbor Blvd	Westminster Ave to Hazard Ave	6D	Major	50,600	40,641	C	36,938	B
3	Harbor Blvd	Hazard Ave to First St	6D	Major	50,600	42,749	C	39,131	B
4	Harbor Blvd	First St to McFadden Ave	6D	Major	50,600	44,443	C	44,236	C
5	Harbor Blvd	McFadden Ave to Edinger Ave	6D	Major	50,600	45,349	D	48,481	D
6	Harbor Blvd	Edinger Ave to Warner Ave	6D	Major	50,600	39,552	B	40,087	C
7	Harbor Blvd	Seegerstrom Ave to MacArthur Blvd	6D	Major	50,600	35,941	B	35,473	B
8	Westminster Ave	Newhope St to Harbor Blvd	6D	Major	50,600	26,594	A	27,109	A
9	Westminster Ave	Fairview St to Harbor Blvd	6D	Major	50,600	26,526	A	25,938	A
10	1st Street	Newhope St to Harbor Blvd	6D	Major	50,600	24,887	A	26,259	A
11	1st Street	Fairview St to Harbor Blvd	6D	Major	50,600	30,343	A	31,882	A
12	McFadden Ave	Newhope St to Harbor Blvd	4D	Secondary	22,500	14,194	A	14,982	A
13	McFadden Ave	Fairview St to Harbor Blvd	4D	Secondary	22,500	16,345	B	13,913	A
14	Edinger Ave	Newhope St to Harbor Blvd	6D	Major	50,600	20,720	A	21,184	A
15	Edinger Ave	Fairview St to Harbor Blvd	6D	Major	50,600	33,761	A	39,655	B

Notes:

- (1) ADT – Average Daily Traffic Volumes
- (2) LOS – Level of Service
- (3) V/C – Volume to Capacity
- (4) #D – total number of lanes in both directions divided by raised or striped median
- (5) LOS E is based on criteria established by the City of Santa Ana
- (6) **Bold** indicates an unacceptable level of service

## 7.2 INTERSECTION LEVEL OF SERVICE

A summary of the AM and PM peak hour intersection level of service analysis results for the Future Year 2035 With Project condition is included in Tables 7-2 and 7-3. The Future Year 2035 No Project results are provided for comparison. Intersections are considered significantly impacted if an unacceptable peak hour level of service is created by the project; or if the project increases volume to capacity ratio at the study intersection by 1% of capacity (0.010) or greater if the intersection already operates at an unacceptable level.

The following is a list of intersections that are forecast to operate at an unacceptable level of service or result in a significant impact:

- (#2) Euclid St and McFadden Ave – LOS F (AM)
- (#3) Euclid St and Edinger Ave – LOS F (AM)
- (#12) Harbor Blvd and Trask Ave – LOS E (AM)
- (#14) Harbor Blvd and Hazard Ave – LOS E (AM)
- (#26) Fairview St and 17<sup>th</sup> St – LOS E/F (AM/PM)
- (#27) Fairview St and 1<sup>st</sup> St – LOS F (PM)

**Table 7-2: Future Year 2035 With Project Intersection LOS – AM Peak Hour**

Intersection		No Project		With Project		Change in V/C	Project Impact
		V/C or Delay	LOS	V/C or Delay	LOS		
1	Euclid St and Westminster Ave	0.864	D	0.844	D	-0.020	No
2	Euclid St and McFadden Ave	1.258	<b>F</b>	1.249	<b>F</b>	-0.009	No
3	Euclid St and Edinger Ave	1.086	<b>F</b>	1.093	<b>F</b>	0.007	No
4	Newhope St and Westminster Ave	0.699	B	0.732	C	0.033	No
5	Newhope St and Hazard Ave	0.537	A	0.536	A	-0.001	No
6	Newhope St and 1st St	0.630	B	0.644	B	0.014	No
7	Newhope St and McFadden Ave	0.607	B	0.612	B	0.005	No
8	Newhope St and Edinger Ave	0.660	B	0.741	C	0.081	No
9	Harbor Blvd and Garden Grove Ave	0.518	A	0.517	A	-0.001	No
10	Harbor Blvd and Westbound SR-22 Off-Ramp	25.4 s	C	25.7	C	0.300	No
11	Trask Ave and Eastbound SR-22 On-Ramp	9.0 s	A	9.0	A	0.000	No
12	Harbor Blvd and Trask Ave	0.969	<b>E</b>	0.939	<b>E</b>	-0.030	No
13	Harbor Blvd and Westminster Ave	0.630	B	0.660	B	0.030	No
14	Harbor Blvd and Hazard Ave	0.908	<b>E</b>	0.904	<b>E</b>	-0.004	No
15	Harbor Blvd and 5th St	0.690	B	0.703	C	0.013	No
16	Harbor Blvd and 1st St	0.728	C	0.741	C	0.013	No
17	Harbor Blvd and McFadden Ave	0.748	C	0.747	C	-0.001	No
18	Harbor Blvd and Edinger Ave	0.672	B	0.674	B	0.002	No
19	Harbor Blvd and Warner Ave	0.707	C	0.692	B	-0.015	No
20	Harbor Blvd and Segerstrom Ave/Slater Ave	0.721	C	0.729	C	0.008	No
21	Harbor Blvd and MacArthur Ave	0.871	D	0.865	D	-0.006	No
22	Harbor Blvd and Sunflower Ave	0.552	A	0.541	A	-0.011	No
23	Harbor Blvd and South Coast Dr	0.480	A	0.487	A	0.007	No
24	Harbor Blvd and Northbound I-405 Off-Ramp	18.1 s	B	17.9	B	-0.200	No
25	Harbor Blvd and Southbound I-405 Off-Ramp	18.7 s	B	18.5	B	-0.200	No
26	Fairview St and 17th St	0.893	D	0.906	<b>E</b>	0.013	<b>YES</b>
27	Fairview St and 1st St	0.797	C	0.817	D	0.020	No
28	Fairview St and McFadden Ave	0.722	C	0.720	C	-0.002	No
29	Fairview St and Edinger Ave	0.789	C	0.797	C	0.008	No

Notes:

- (1) LOS – Level of Service
- (2) V/C – Volume to Capacity
- (3) **Bold** indicates an unacceptable level of service

**Table 7-3: Future Year 2035 With Project Intersection LOS – PM Peak Hour**

Intersection		No Project		With Project		Change in V/C	Project Impact
		V/C or Delay	LOS	V/C or Delay	LOS		
1	Euclid St and Westminster Ave	0.807	D	0.827	D	0.020	No
2	Euclid St and McFadden Ave	0.715	C	0.733	C	0.018	No
3	Euclid St and Edinger Ave	0.901	<b>E</b>	0.891	D	-0.010	No
4	Newhope St and Westminster Ave	0.830	D	0.877	D	0.047	No
5	Newhope St and Hazard Ave	0.737	C	0.734	C	-0.003	No
6	Newhope St and 1st St	0.816	D	0.813	D	-0.003	No
7	Newhope St and McFadden Ave	0.714	C	0.747	C	0.033	No
8	Newhope St and Edinger Ave	0.791	C	0.754	C	-0.037	No
9	Harbor Blvd and Garden Grove Ave	0.868	D	0.867	D	-0.001	No
10	Harbor Blvd and Westbound SR-22 Off-Ramp	24.7 s	C	23.3 s	C	-1.4 s	No
11	Trask Ave and Eastbound SR-22 On-Ramp	12.9 s	B	8.8 s	A	-4.1 s	No
12	Harbor Blvd and Trask Ave	1.431	<b>F</b>	0.895	D	-0.536	No
13	Harbor Blvd and Westminster Ave	0.712	C	0.726	C	0.014	No
14	Harbor Blvd and Hazard Ave	0.717	C	0.773	C	0.056	No
15	Harbor Blvd and 5th St	0.737	C	0.769	C	0.032	No
16	Harbor Blvd and 1st St	0.863	D	0.859	D	-0.004	No
17	Harbor Blvd and McFadden Ave	0.680	B	0.694	B	0.014	No
18	Harbor Blvd and Edinger Ave	0.694	B	0.720	C	0.026	No
19	Harbor Blvd and Warner Ave	0.720	C	0.726	C	0.006	No
20	Harbor Blvd and Segerstrom Ave/Slater Ave	0.853	D	0.851	D	-0.002	No
21	Harbor Blvd and MacArthur Ave	0.841	D	0.860	D	0.019	No
22	Harbor Blvd and Sunflower Ave	0.815	D	0.823	D	0.008	No
23	Harbor Blvd and South Coast Dr	0.611	B	0.608	B	-0.003	No
24	Harbor Blvd and Northbound I-405 Off-Ramp	18.5 s	B	18.8 s	B	0.3 s	No
25	Harbor Blvd and Southbound I-405 Off-Ramp	24.9 s	C	25.0 s	C	0.1 s	No
26	Fairview St and 17th St	1.064	<b>F</b>	1.112	<b>F</b>	0.048	<b>Yes</b>
27	Fairview St and 1st St	1.032	<b>F</b>	1.080	<b>F</b>	0.048	<b>Yes</b>
28	Fairview St and McFadden Ave	0.683	B	0.700	B	0.017	No
29	Fairview St and Edinger Ave	0.783	C	0.794	C	0.011	No

Notes:

- (1) LOS – Level of Service
- (2) V/C – Volume to Capacity
- (3) **Bold** indicates an unacceptable level of service

## 8.0 Orange County Congestion Management Program Analysis

The Orange County Congestion Management Program (CMP) requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System (CMPHS). Per the CMP guidelines, this number is based on the desire to analyze any impacts that will be three percent or more of the existing CMP highway system facilities' capacity. The CMPHS includes designated CMP intersection and CMP arterial monitoring locations.

The Orange County Congestion Management Program (CMP) monitors the level of service at all designated CMP intersections in the County. Harbor Boulevard, First Street, and Warner Avenue west of Harbor Boulevard are designated CMP arterials. Study intersections that are designated CMP intersections include:

- (#10) SR-22 WB Ramps and Harbor Boulevard
- (#16) Harbor Boulevard and 1<sup>st</sup> Street
- (#19) Harbor Boulevard and Warner Avenue
- (#24) Harbor Boulevard and I-405 Northbound Off-Ramp
- (#25) Harbor Boulevard and I-405 Southbound Off-Ramp

Table 8-1 summarizes the LOS at the 9 CMP arterials for the Year 2035 No Project and Year 2035 With Project conditions. The volumes were developed based on OCTAM ADT link volumes on Harbor Boulevard and First Street. CMP roadway segments located within the study area for forecast to operate at an acceptable level of service in the With Project condition.

**Table 8-1 CMP Arterial LOS**

#	Street Name	Limits	# Lanes	CMP Guideline	2035 NP		2035 WP	
					ADT	LOS	ADT	LOS
1	Harbor Blvd	Trask Ave to Westminster Ave	6D	50,600	44,687	C	42,262	C
2	Harbor Blvd	Westminster Ave to Hazard Ave	6D	50,600	40,641	C	36,938	B
3	Harbor Blvd	Hazard Ave to First St	6D	50,600	42,749	C	39,131	B
4	Harbor Blvd	First St to McFadden Ave	6D	50,600	44,443	C	44,236	C
5	Harbor Blvd	McFadden Ave to Edinger Ave	6D	50,600	45,349	D	48,481	D
6	Harbor Blvd	Edinger Ave to Warner Ave	6D	50,600	39,552	B	40,087	C
7	Harbor Blvd	Seegerstrom Ave to MacArthur Blvd	6D	50,600	35,941	B	35,473	B
10	1st Street	Newhope St to Harbor Blvd	6D	50,600	24,887	A	26,259	A
11	1st Street	Fairview St to Harbor Blvd	6D	50,600	30,343	A	31,882	A

Notes:

- (1) ADT – Average Daily Traffic Volumes
- (2) LOS – Level of Service
- (3) V/C – Volume to Capacity
- (4) #D – total number of lanes in both directions divided by raised or striped median
- (5) LOS E is based on criteria established by the City of Santa Ana
- (6) **Bold** indicates an unacceptable level of service

Tables 8-2 and 8-3 summarize the LOS at the 3 CMP intersections for the Year 2035 No Project and Year 2035 With Project conditions. All CMP intersections within the study area are forecast to operate at an acceptable level of service.

**Table 8-2 CMP Intersection Year 2035 LOS – AM Peak**

Intersection		No Project		With Project		Change in V/C	Project Impact
		V/C or Delay	LOS	V/C or Delay	LOS		
10	Harbor Blvd and Westbound SR-22 Off-Ramp	25.4 s	C	25.7 s	C	0.3 s	No
16	Harbor Blvd and 1st St	0.728	C	0.741	C	0.013	No
19	Harbor Blvd and Warner Ave	0.707	C	0.692	B	-0.015	No
24	Harbor Blvd and Northbound I-405 Off-Ramp	18.1 s	B	17.9 s	B	-0.2 s	No
25	Harbor Blvd and Southbound I-405 Off-Ramp	18.7 s	B	18.5 s	B	-0.2 s	No

Notes:

- (1) LOS – Level of Service
- (2) V/C – Volume to Capacity
- (3) **Bold** indicates an unacceptable level of service

**Table 8-3: CMP Intersection Year 2035 LOS – PM Peak Hour**

Intersection		No Project		With Project		Change in V/C	Project Impact
		V/C or Delay	LOS	V/C or Delay	LOS		
10	Harbor Blvd and Westbound SR-22 Off-Ramp	24.7 s	C	23.3 s	C	-1.4 s	No
16	Harbor Blvd and 1st St	0.863	D	0.859	D	-0.004	No
19	Harbor Blvd and Warner Ave	0.720	C	0.726	C	0.006	No
24	Harbor Blvd and Northbound I-405 Off-Ramp	18.5 s	B	18.8 s	B	0.3 s	No
25	Harbor Blvd and Southbound I-405 Off-Ramp	24.9 s	C	25.0 s	C	0.1 s	No

Notes:

- (1) LOS – Level of Service
- (2) V/C – Volume to Capacity
- (3) **Bold** indicates an unacceptable level of service

## 9.0 Potential Mitigation Measures

The proposed project is forecast to create significant traffic impacts at five of the study intersections. The following mitigation measures are recommended to bring the roadway segments and intersections that operate at LOS E or F to an acceptable level of service or to pre-project conditions.

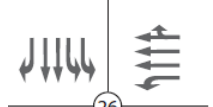


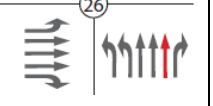
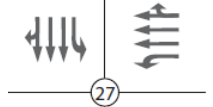



### EXISTING YEAR 2013 WITH PROJECT

No project related impacts were identified in the 2013 With Project scenario.

### FUTURE YEAR 2035 WITH PROJECT

Table 9-2 shows the proposed mitigation measures for the Future Year 2035 With Project scenario. The improvements noted are what would be required for the facility to operate at an acceptable level of service or back to pre-project conditions.

**Table 9-1: Future Year 2035 With Project – Mitigation Measures**

Intersection	2035 No Project	2035 With Project		With Mitigation Measure		Comments
	V/C LOS (ICU)	Geometry and Control	V/C LOS (ICU)	Geometry and Control	V/C LOS (ICU)	
(#26) Fairview St and 17 <sup>th</sup> St	AM 0.893 D		AM 0.906 E		AM 0.841 D	Add one northbound through lane.
	PM 1.064 F		PM 1.112 F		PM 1.023 F	
(#27) Fairview St and 1st St	AM 0.727 C		AM 0.817 D		AM 0.785 C	Add a southbound right turn lane.
	PM 1.032 F		PM 1.080 F		PM 1.019 F	

Note: MPSH – Master Plan of Streets and Highways.

## 10.0 Conclusions

The Harbor Corridor Plan is proposing to replace the existing land uses located on 425-acres along Harbor Boulevard. At buildout, the Harbor Corridor Plan calls for approximately 4,600 residential units and 2 million square feet of commercial space to be located in the study area. The proposed project is estimated to generate 54,357 daily trips, or 31,911 net daily trips when compared to the no project condition. An analysis of the Existing Year 2013 and Future Year 2035 with and without project was conducted for 29 study intersections and 15 roadway segments.

### 10.1 EXISTING YEAR 2013 CONDITIONS

- All 29 study intersections are forecast to operate at an acceptable level of service D or better in the Existing Year 2013 No Project condition, with the exception of the intersection of Harbor Boulevard and Trask Avenue (#12). This intersection is currently operating at LOS F in the PM peak hour.
- If the Harbor Corridor Plan were implemented today, all intersections would operate at an acceptable level of service D or better. The level of service at the intersection of Harbor Boulevard and Trask Avenue (#12) would improve in the With Project condition.
- All 15 study roadway segments are forecast to operate at an acceptable level of service D or better in the Existing Year 2013 No Project and With Project conditions.

### 10.2 FUTURE YEAR 2035 CONDITIONS

- In the Future Year 2035 No Project condition, all but five intersections are forecast to operate at acceptable levels of service. These intersections are forecast to operate at unacceptable levels of service E or F during either the AM or PM peak hour.
- In the Future Year 2035 With Project condition, the proposed project is forecast to result in a significant impact at the following two intersections:
  - (#26) Fairview St and 17<sup>th</sup> St
  - (#27) Fairview St and 1<sup>st</sup> St
- Mitigation measures were developed to mitigate these impacts and are summarized in Section 9.0. The proposed mitigation measures are consistent with proposed buildout of the intersection per the City's Circulation Element Master Plan of Streets and Highways.
- All 15 study roadway segments are forecast to operate at an acceptable level of service E or better in the Future Year 2035 No Project and With Project conditions.
- An analysis of study intersections and roadway segments identified in the Orange County Congestion Management Program (CMP) was conducted. The 11 CMP roadway segments and five CMP intersections are forecast to operate at acceptable levels of service in all analysis scenarios.



## Appendix

A. PROJECT TRIP GENERATION TABLES

B. TRAFFIC COUNT DATA

C. OCTAM LINK PLOTS

D. TRAFFIX WORKSHEETS

## **APPENDIX**

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A.PROJECT TRIP GENERATION TABLES

B.TRAFFIC COUNT DATA

C.OCTAM LINK PLOTS

D.TRAFFIX WORKSHEETS

## **A. PROJECT TRIP GENERATION TABLES**

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# Memorandum

<b>To/Attention</b>	The Planning Center	<b>Date</b>	June 11, 2013
<b>From</b>	IBI Group	<b>Project No</b>	29549
<b>cc</b>		<b>Steno</b>	ch
<b>Subject</b>	Harbor Corridor Plan Traffic Impact Study - Project Trip Generation		

This technical memorandum documents the project trip generation for the Harbor Corridor Plan Traffic Impact Study.

## Background

The Orange County Transportation Authority (OCTA) is responsible for regional transportation modeling in Orange County. OCTA's role as the regional modeling agency is to evaluate multi-modal transportation alternatives to support regional planning activities. OCTAM is a regional model that is based on the traditional four-step sequential modeling methodology with "feedback loops" procedures to insure internal modeling consistency. The model incorporates multi-modal analytical capabilities to analyze the following modes of travel: local and express bus transit, urban rail, commuter rail, toll roads, carpools, truck traffic, as well as non-motorized transportation which includes pedestrian and bicycle trips. The model responds to changes in land use types, household characteristics, transportation infrastructure, and travel costs such as transit fares, parking costs, tolls, and auto operating costs.

## Process

OCTAM is a demographic based model that utilizes Orange County Projections (OCP) as its data input. Land uses must be converted to socioeconomic data (i.e., residential units are defined as "occupied units" and non-residential categories must be converted to an equivalent employment estimate) prior to input in the model. The trip generation for the Harbor Corridor Plan involves a two-step process: 1) convert land use data to socioeconomic data, and 2) apply appropriate trip rates. In the first step, the land use data is typically converted to socioeconomic data based on rates outlined in the *Orange County Subarea Modeling Guidelines Manual, 2010*, however, for this particular study, The Planning Center provided the equivalent socioeconomic data per land use (provided as an attachment to this memo for reference). The second step of the process is to apply appropriate socioeconomic trip rates, as outlined in the *Orange County Subarea Modeling Guidelines Manual, 2010*. These rates are shown in Table 1.

Once the land uses are converted to SED data, the model distributes and assigns trips, and incorporates 10 mode choices (including motorized and non-motorized). The final vehicle trips generated by each TAZ are used in the analysis of study intersections and roadway segments.

The Planning Center – June 11, 2013

**Table 1 – OCTAM SED Trip Rates**

Orange County Subarea Modeling Guidelines Manual

December 2010

**SOCIOECONOMIC DATA TRIP RATES  
(June 2001)**

VARIABLE	Single Family Residential	Multi Family Residential	Population	Employed Residents	Income (Million \$)	Retail Employment	Service Employment	Other Employment	School Enrollment (Student)	Univ./College Enrollment
<b>PRODUCTION TRIP RATES</b>										
HBW	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00
WBO	0.00	0.00	0.00	0.00	0.00	1.83	1.07	1.01	0.00	0.00
HBO	1.05	0.60	0.24	0.00	13.00	0.00	0.00	0.00	0.00	0.00
HBS	0.89	0.46	0.11	0.00	11.00	0.00	0.00	0.00	0.00	0.00
OBO	0.44	0.43	0.00	0.00	2.00	5.20	1.08	0.24	0.00	0.20
HBUniv	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HBSch	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>ATTRACTION TRIP RATES</b>										
HBW	0.10	0.10	0.00	0.00	0.00	1.24	1.24	1.26	0.00	0.00
WBO	0.25	0.25	0.00	0.00	0.00	3.44	0.60	0.54	0.00	0.20
HBO	0.40	0.39	0.00	0.00	1.00	3.46	0.90	0.10	0.00	0.00
HBS	0.00	0.00	0.00	0.00	0.00	5.54	0.00	0.00	0.00	0.00
OBO	0.41	0.45	0.00	0.00	2.00	4.84	1.10	0.20	0.00	0.20
HBUniv	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91
HBSch	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.00
DAILY	3.54	2.68	0.54	1.27	29.00	25.55	5.99	3.35	0.88	1.51

Note: These trip rates were developed by Urban Crossroads in corroboration with Austin-Foust Associates and OCTA.

Orange County Transportation Authority

**Project Trip Generation**

The following tables show the trip generation by land use for each scenario.

**Table 2 – Existing Land Uses (2013 No Project) Project Trip Generation**

TAZ	Residential	Retail	Service	Other	Total Project Trips
622	-	1,022	869	204	
718	1,262	537	377	245	
724	334	1,201	928	20	
732	-	1,559	383	10	
747	823	818	144	124	
748	576	971	461	107	
765	-	1,048	413	3	
766	1,059	6,745	204	-	
<b>Total</b>	<b>4,054</b>	<b>13,899</b>	<b>3,780</b>	<b>714</b>	<b>22,446</b>

The Planning Center – June 11, 2013

**Table 3 – Harbor Corridor Plan Land Uses (With Project) Project Trip Generation**

TAZ	Residential	Retail	Service	Other	Total Project Trips
622	5,948	2,657	1,875	-	
718	3,427	2,172	-	224	
724	3,047	1,891	-	-	
732	1,315	4,446	-	-	
747	3,666	1,763	-	47	
748	2,634	2,453	-	-	
765	1,298	3,960	-	-	
766	1,085	10,450	-	-	
<b>Total</b>	<b>22,420</b>	<b>29,791</b>	<b>1,875</b>	<b>271</b>	<b>54,357</b>

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## **Appendix – Harbor Corridor Plan SED Data**

**HCP BOUNDARY: Buildout Breakdown by Plan (01/28/13)**

	EXLU	NHSP	HCP
<b>Units</b>	<b>739</b>	<b>236</b>	<b>4,623</b>
<b>Population</b>	<b>3,252</b>	<b>1,037</b>	<b>18,579</b>
<b>Total SF</b>	<b>1,954,261</b>	<b>4,867,789</b>	<b>1,967,982</b>
<i>Retail SF</i>	<i>633,878</i>	<i>2,849,252</i>	<i>1,397,982</i>
<i>Service SF</i>	<i>815,346</i>	<i>1,593,040</i>	<i>375,000</i>
<i>Other SF</i>	<i>505,037</i>	<i>425,497</i>	<i>195,000</i>
<b>Total Emp</b>	<b>1,386</b>	<b>3,879</b>	<b>1,559</b>
<i>Retail Emp</i>	<i>543</i>	<i>2,374</i>	<i>1,165</i>
<i>Service Emp</i>	<i>631</i>	<i>1,328</i>	<i>313</i>
<i>Other Emp</i>	<i>213</i>	<i>177</i>	<i>81</i>
<b>Acres (1)</b>	<b>305</b>	<b>305</b>	<b>305</b>

**HCP BOUNDARY: Buildout Breakdown by TAZ by Plan (01/28/13)**

TAZ	Acres (excluding ROW) *	Existing Land Use									North Harbor Specific Plan (Current Plan)									Harbor Mixed Use Transit Corridor Plan (Proposed Plan)					
		Units	Population	Retail Square Feet	Service Square Feet	Other Square Feet	Retail Employment	Service Employment	Other Employment	Units	Population	Retail Square Feet	Service Square Feet	Other Square Feet	Retail Employment	Service Employment	Other Employment	Units	Population	Retail Square Feet	Service Square Feet	Other Square Feet	Retail Employment	Service Employment	Other Employment
622	39.38	0	0	46,269	187,546	147,530	40	145	61	0	0	185,126	140,544	425,497	154	117	177	1,229	4,915	125,000	375,000	0	104	313	0
718	41.39	230	1,012	21,215	86,738	174,233	21	63	73	141	620	521,327	175,688	0	434	146	0	708	2,833	102,000	0	161,000	85	0	67
724	36.98	61	268	52,278	202,154	13,312	47	155	6	95	417	581,725	184,906	0	485	154	0	628	2,526	88,827	0	0	74	0	0
732	18.78	0	0	70,011	80,757	1,979	61	64	3	0	0	291,000	118,038	0	242	98	0	272	1,086	208,271	0	0	174	0	0
747	38.14	150	660	34,486	33,310	88,500	32	24	37	0	0	333,251	202,474	0	278	169	0	749	3,072	83,000	0	34,000	69	0	14
748	32.11	105	462	41,995	96,953	76,787	38	77	32	0	0	432,353	266,919	0	360	222	0	544	2,177	115,000	0	0	96	0	0
765	16.22	0	0	50,840	87,468	2,696	41	69	1	0	0	176,658	176,658	0	147	147	0	268	1,073	185,600	0	0	155	0	0
766	30.10	193	849	316,784	40,420	0	264	34	0	0	0	327,813	327,813	0	273	273	0	224	897	490,284	0	0	409	0	0
<b>Total</b>		<b>739</b>	<b>3,252</b>	<b>633,878</b>	<b>815,346</b>	<b>505,037</b>	<b>543</b>	<b>631</b>	<b>213</b>	<b>236</b>	<b>1,037</b>	<b>2,849,252</b>	<b>1,593,040</b>	<b>425,497</b>	<b>2,374</b>	<b>1,328</b>	<b>177</b>	<b>4,623</b>	<b>18,579</b>	<b>1,397,982</b>	<b>375,000</b>	<b>195,000</b>	<b>1,165</b>	<b>313</b>	<b>81</b>

(1) The North Harbor Specific Plan covers a total of 425 acres. These buildout summaries are for the 305 acres covered by the Harbor Corridor Plan (total acreage includes ROW). Approximately 120 acres of existing NHSP consisting primarily of residential and open space uses are being converted to conventional zoning and are not included in the Harbor Plan. The area included in the NHSP but excluded from the HCP is addressed separately below.

**CONVENTIONAL ZONING: Buildout Breakdown by Plan (01/28/13)**

	EXLU	NHSP	Conv Zone
<b>Units</b>	<b>92</b>	<b>84</b>	<b>92</b>
<b>Population</b>	<b>405</b>	<b>370</b>	<b>405</b>
<b>Total SF</b>	<b>3,700</b>	<b>0</b>	<b>27,000</b>
<i>Retail SF</i>	<i>3,700</i>	<i>0</i>	<i>27,000</i>
<i>Service SF</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Other SF</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b>Total Emp</b>	<b>3</b>	<b>0</b>	<b>23</b>
<i>Retail Emp</i>	<i>3</i>	<i>0</i>	<i>23</i>
<i>Service Emp</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Other Emp</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b>Acres (2)</b>	<b>120</b>	<b>120</b>	<b>120</b>

**CONVENTIONAL ZONING: Buildout Breakdown by TAZ by Plan (01/28/13)**

TAZ	Acres (excluding ROW) *	Existing Land Use									North Harbor Specific Plan (Current Plan)									Conventional Zoning (Proposed Plan)					
		Units	Population	Retail Square Feet	Service Square Feet	Other Square Feet	Retail Employment	Service Employment	Other Employment	Units	Population	Retail Square Feet	Service Square Feet	Other Square Feet	Retail Employment	Service Employment	Other Employment	Units (3)	Population	Retail Square Feet	Service Square Feet	Other Square Feet	Retail Employment	Service Employment	Other Employment
724	120.00	92	405	3,700	0	0	3	0	0	84	370	0	0	0	0	0	0	92	405	27,000	0	0	23	0	0
<b>Total</b>		<b>92</b>	<b>405</b>	<b>3,700</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>84</b>	<b>370</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>92</b>	<b>405</b>	<b>27,000</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>0</b>

(2) Approximately 120 acres of the existing NHSP are not included in the HCP and are transitioning to conventional zoning

(3) Residential buildout assumptions for the NHSP parcels that are excluded from the HCP and transitioning to conventional zoning reflect existing conditions



## **B. TRAFFIC COUNT DATA**

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# ITM Peak Hour Summary

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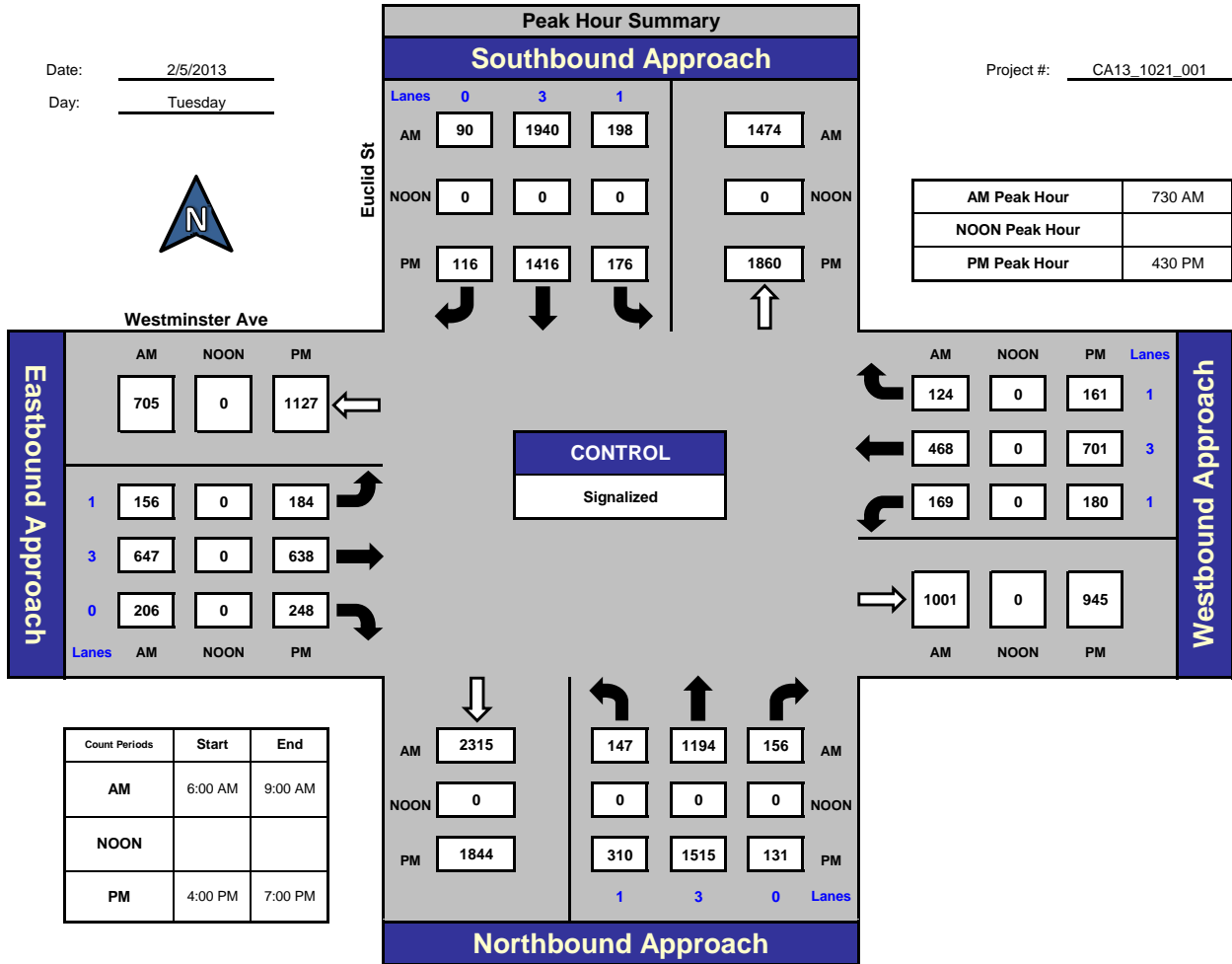
National Data & Surveying Services

## Euclid St and Westminster Ave, City of Santa Ana

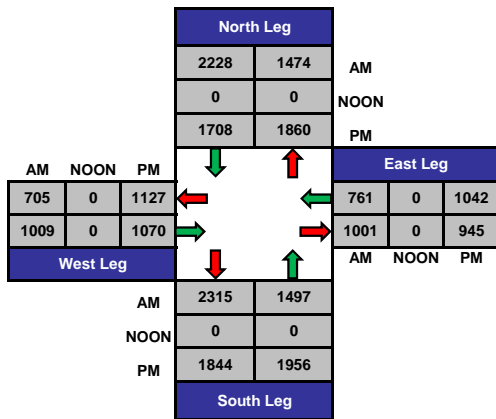
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Day: Tuesday

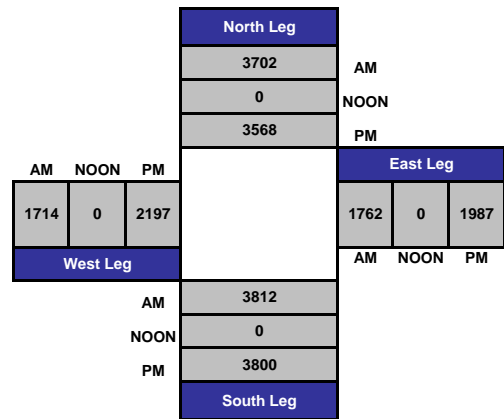
Project #: CA13\_1021\_001



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

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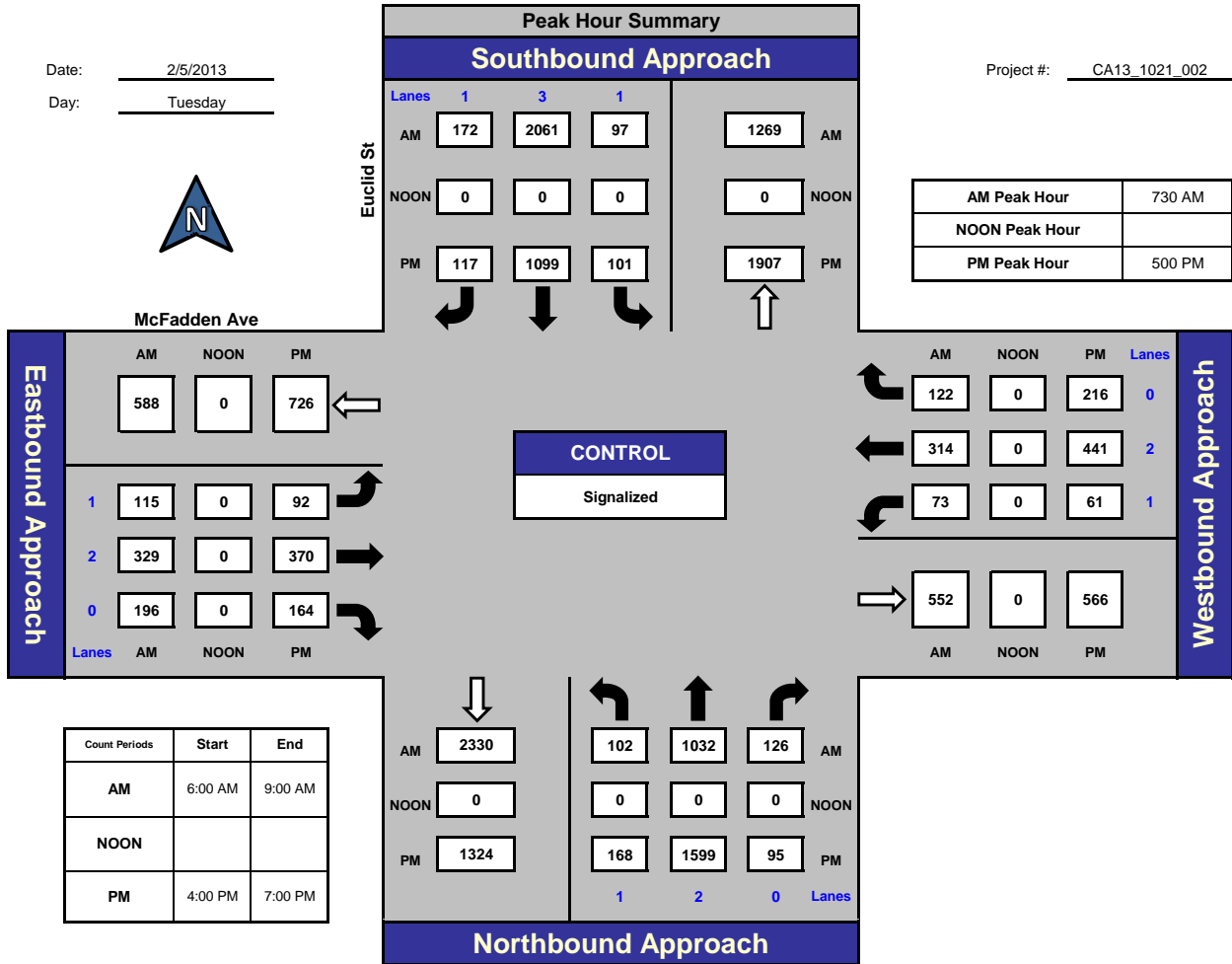
National Data & Surveying Services

## Euclid St and McFadden Ave., City of Santa Ana

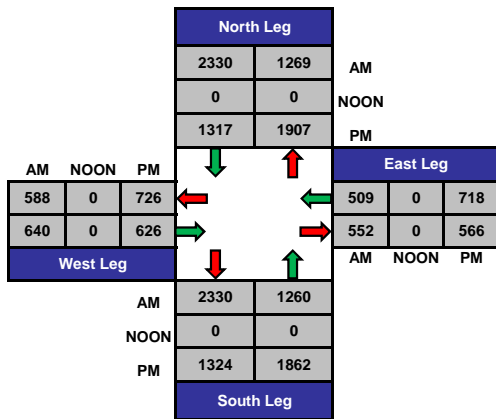
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Day: Tuesday

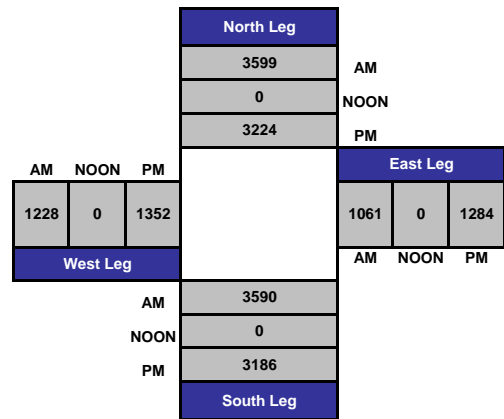
Project #: CA13\_1021\_002



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

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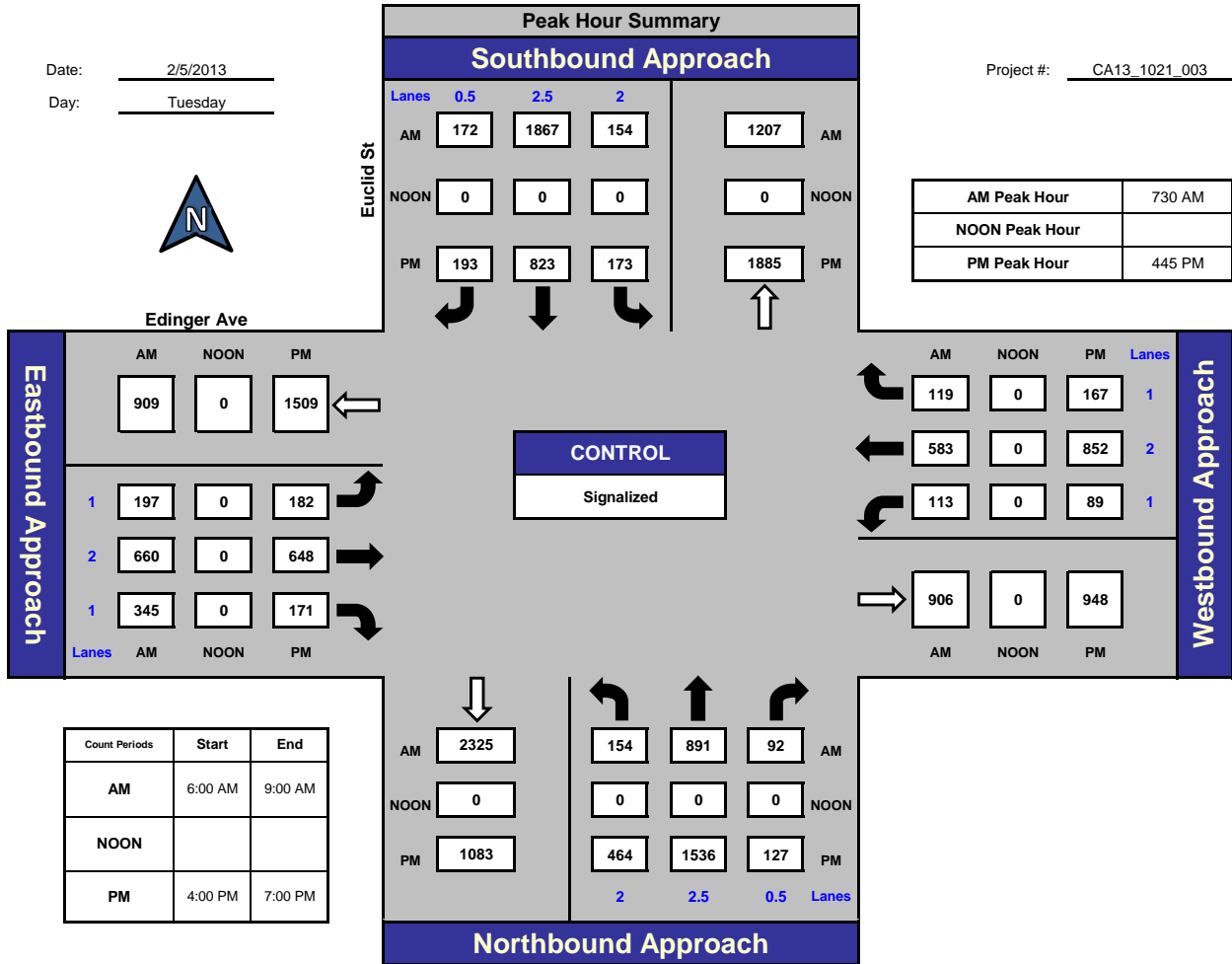
National Data & Surveying Services

## Euclid St and Edinger Ave, City of Santa Ana

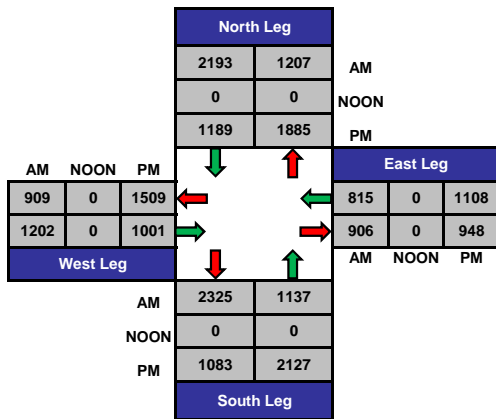
Date: 2/5/2013

Day: Tuesday

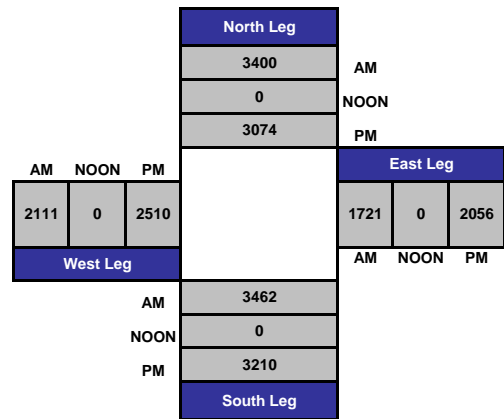
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### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

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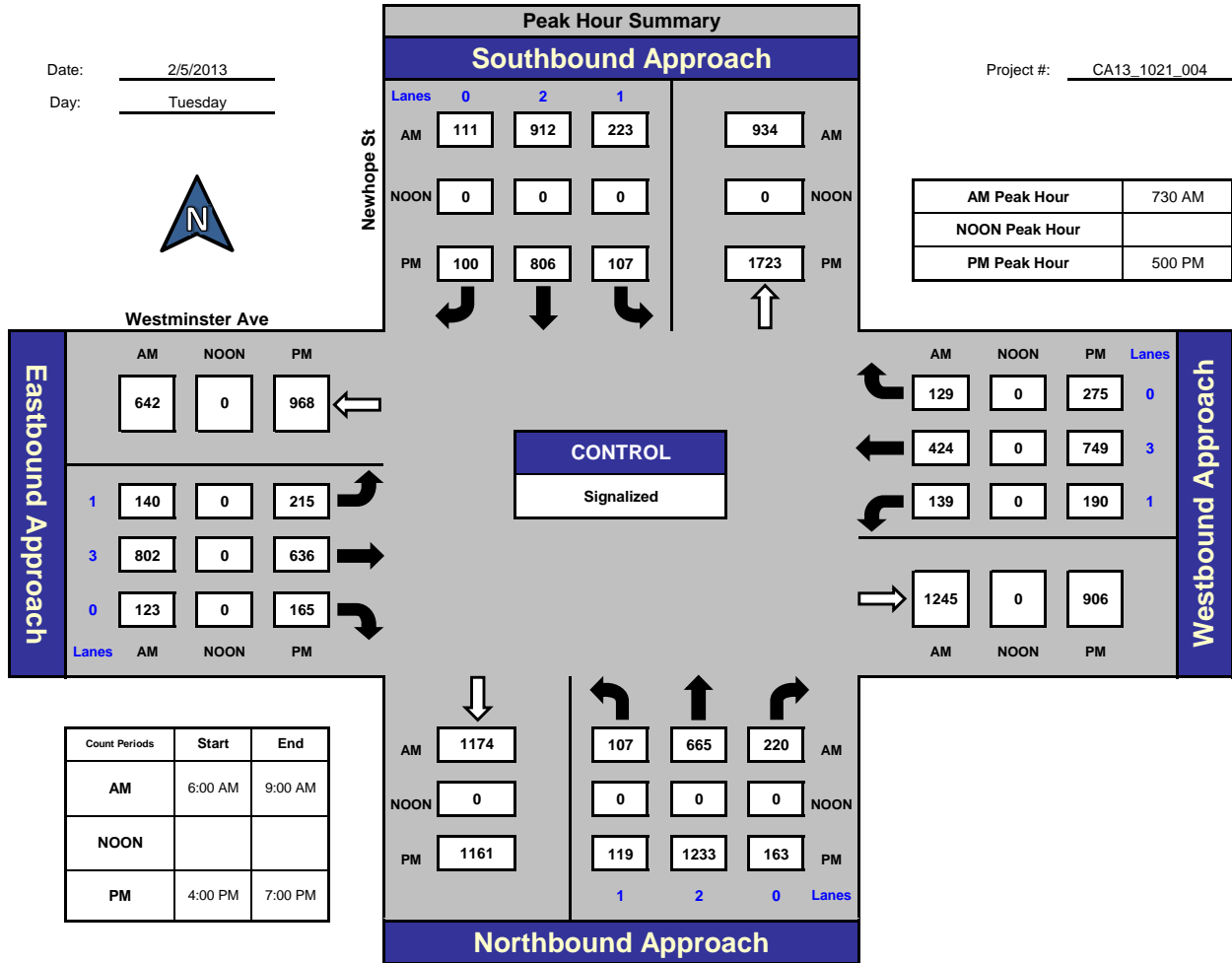


National Data & Surveying Services

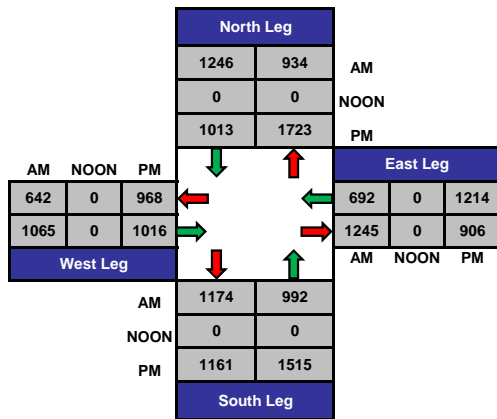
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Date: 2/5/2013  
Day: Tuesday

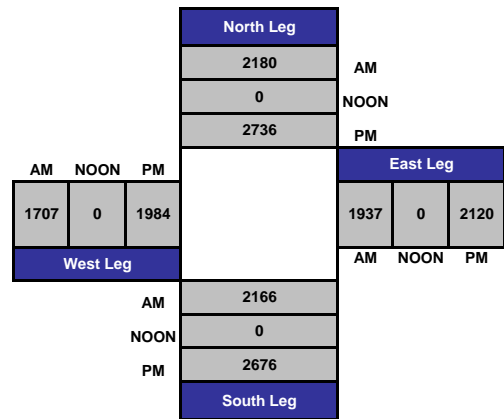
Project #: CA13\_1021\_004



### Total Ins & Outs



### Total Volume Per Leg



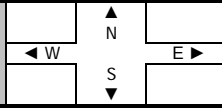
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE: 6/6/12 WEDNESDAY
LOCATION: NORTH & SOUTH: SANTA ANA, EAST & WEST: NEWHOPE, HAZARD
PROJECT #: SC0060
LOCATION #: 2
CONTROL: SIGNAL

NOTES:

AM, PM, MD, OTHER, OTHER



Main data table with columns for Northbound, Southbound, Eastbound, Westbound, and U-Turns, containing traffic volume counts for various time intervals (6:00 AM to 8:45 AM and 4:00 PM to 6:45 PM).

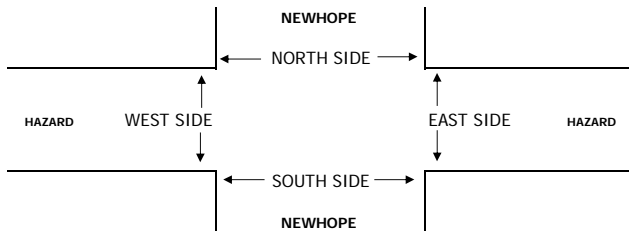


Table for Pedestrian and Bicycle crossings, split into AM and PM sections with time slots.

Table titled 'PEDESTRIAN CROSSINGS' with columns for N Side, S Side, E Side, W Side, and Total.

Table titled 'BICYCLE CROSSING' with columns for N Side, S Side, E Side, W Side, and Total.

Table titled 'TOTAL CROSSINGS' with columns for NS, SS, ES, WS, and Total.

# ITM Peak Hour Summary

Prepared by:



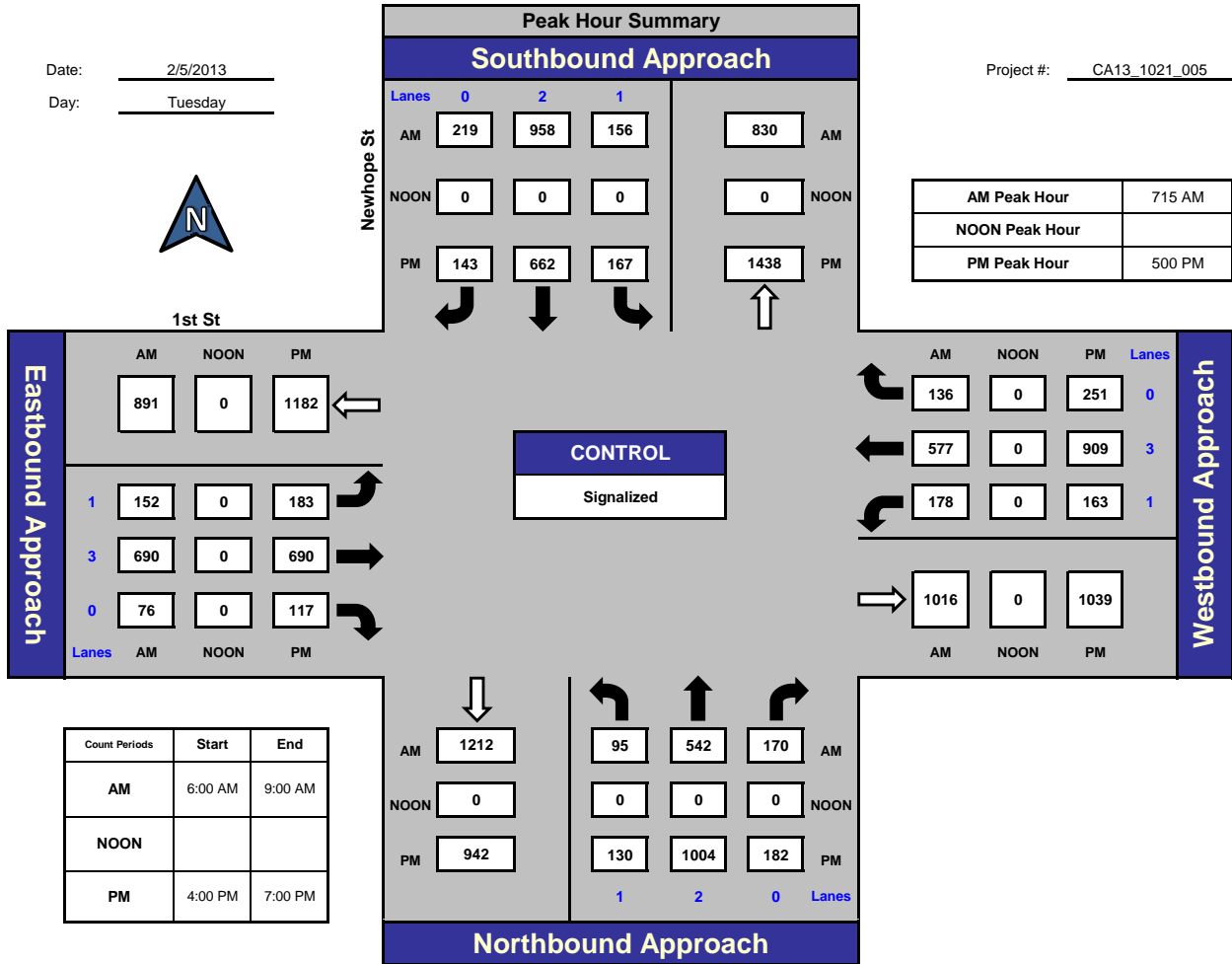
National Data & Surveying Services

## Newhope St and 1st St, City of Santa Ana

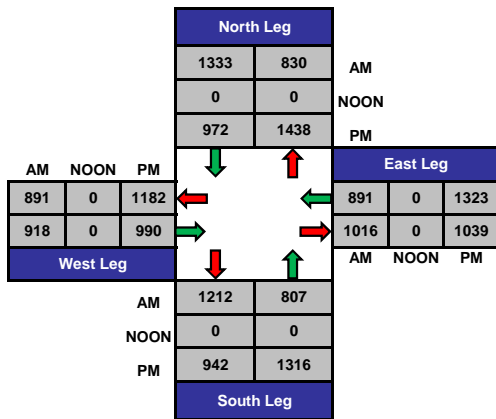
Date: 2/5/2013

Day: Tuesday

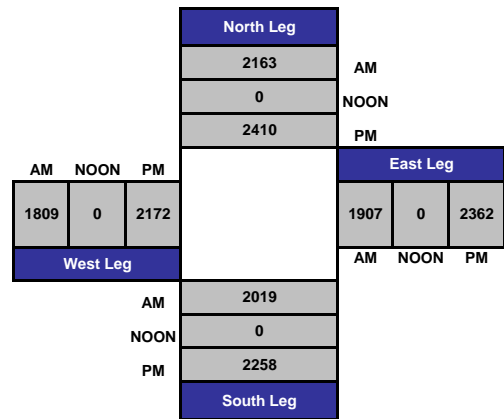
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### Total Ins & Outs



### Total Volume Per Leg







# ITM Peak Hour Summary

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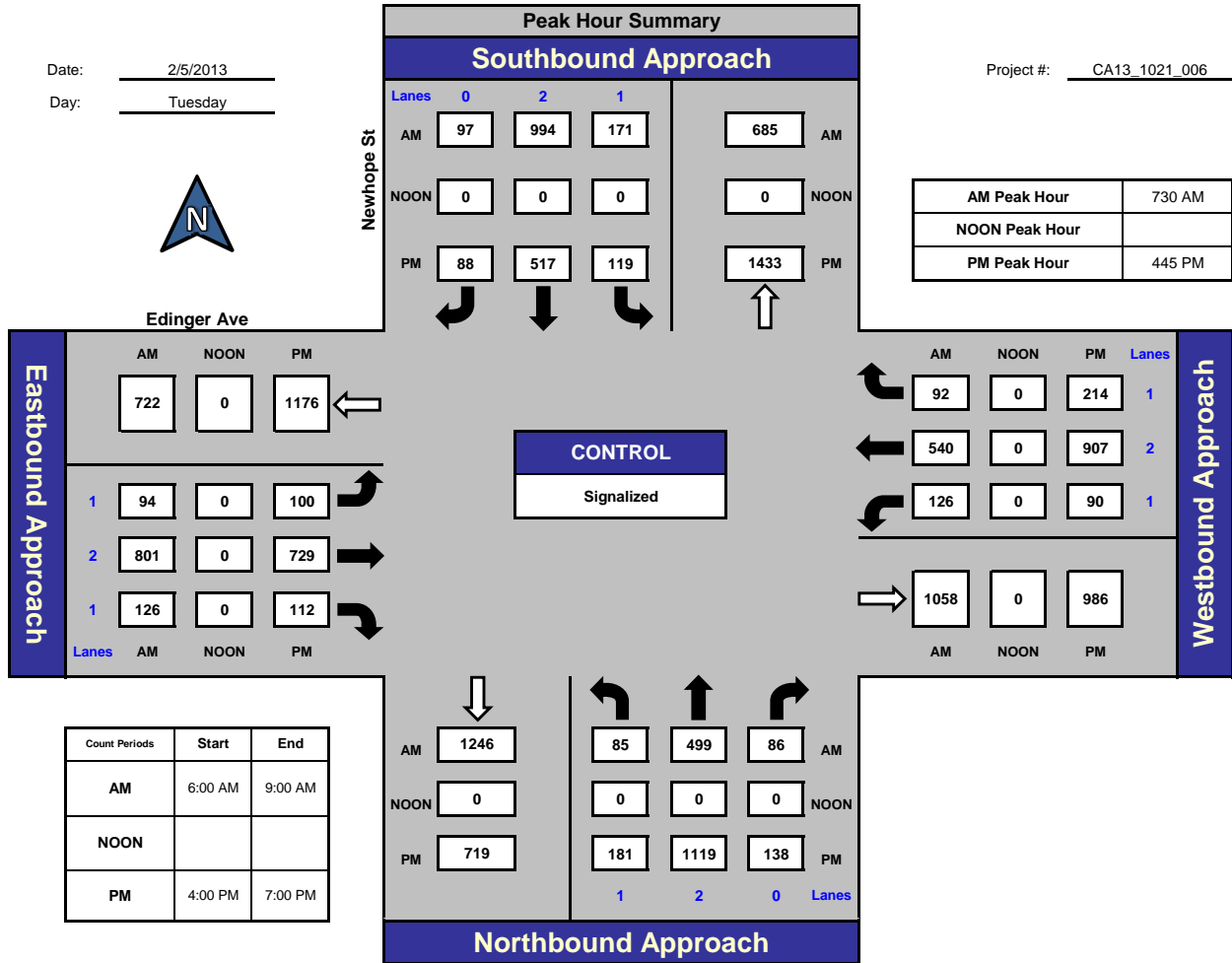
National Data & Surveying Services

## Newhope St and Edinger Ave., City of Santa Ana

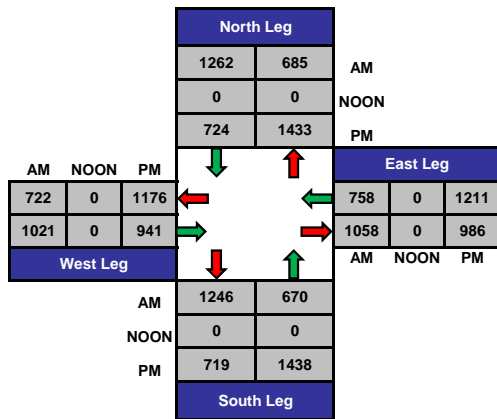
Date: 2/5/2013

Day: Tuesday

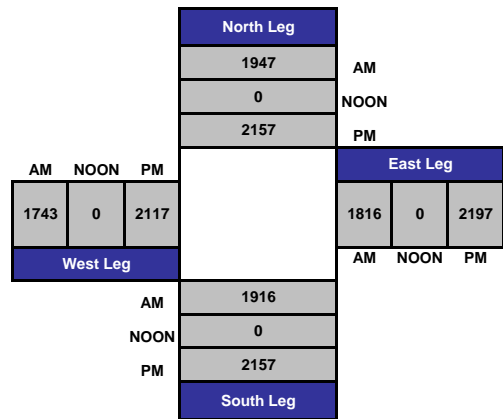
Project #: CA13\_1021\_006



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



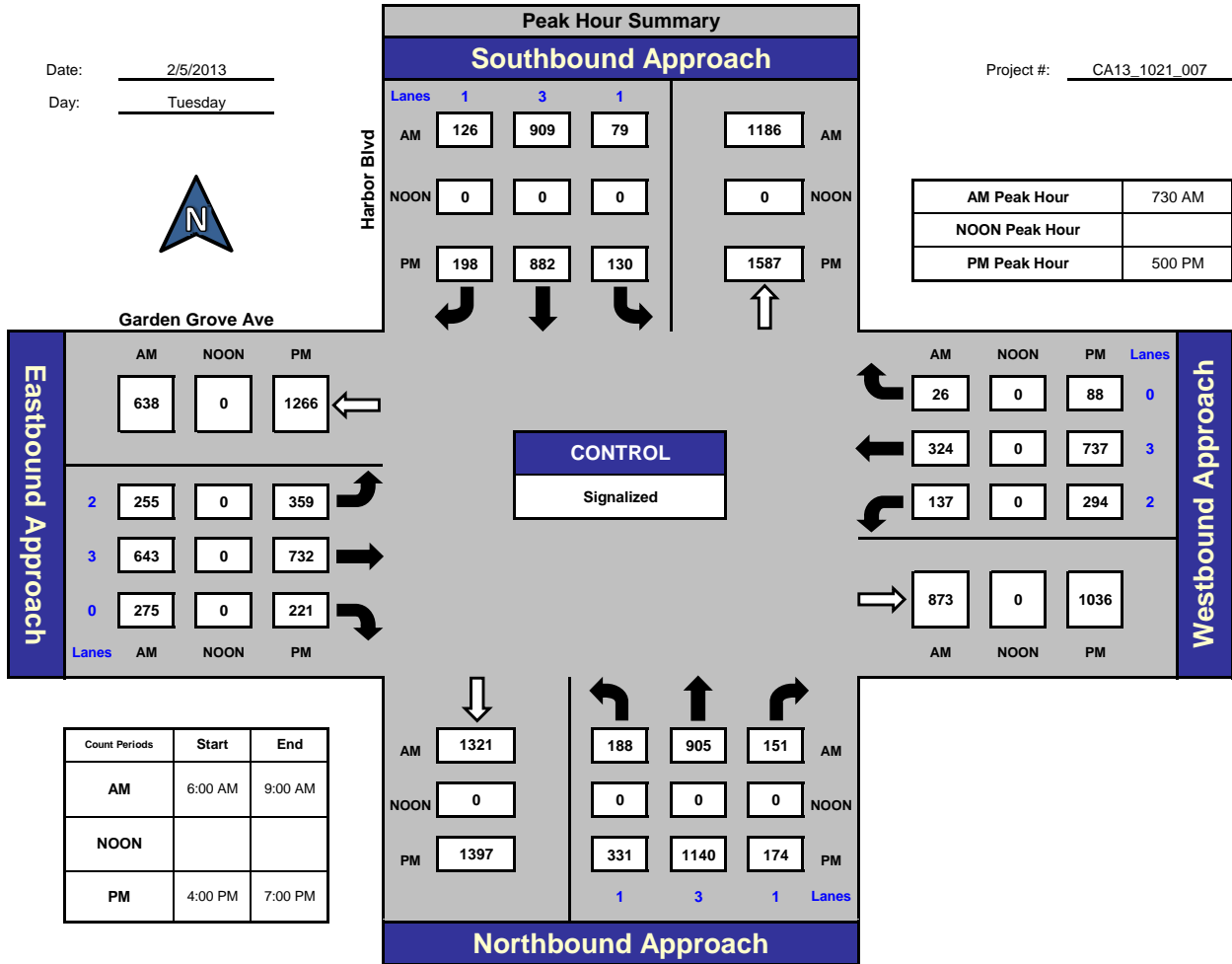
National Data & Surveying Services

## Harbor Blvd and Garden Grove Ave, City of Santa Ana

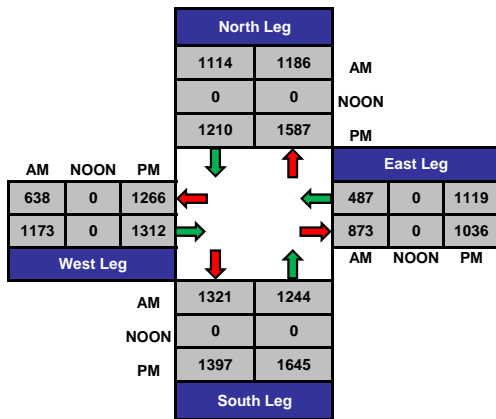
Date: 2/5/2013

Day: Tuesday

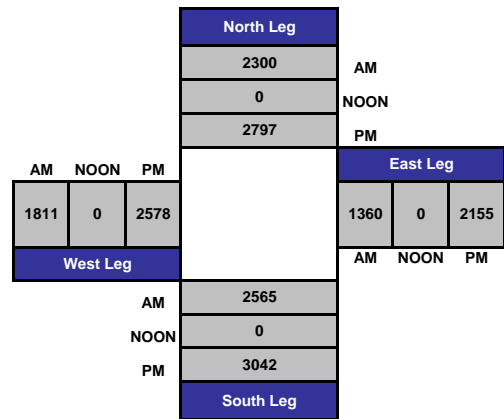
Project #: CA13\_1021\_007



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

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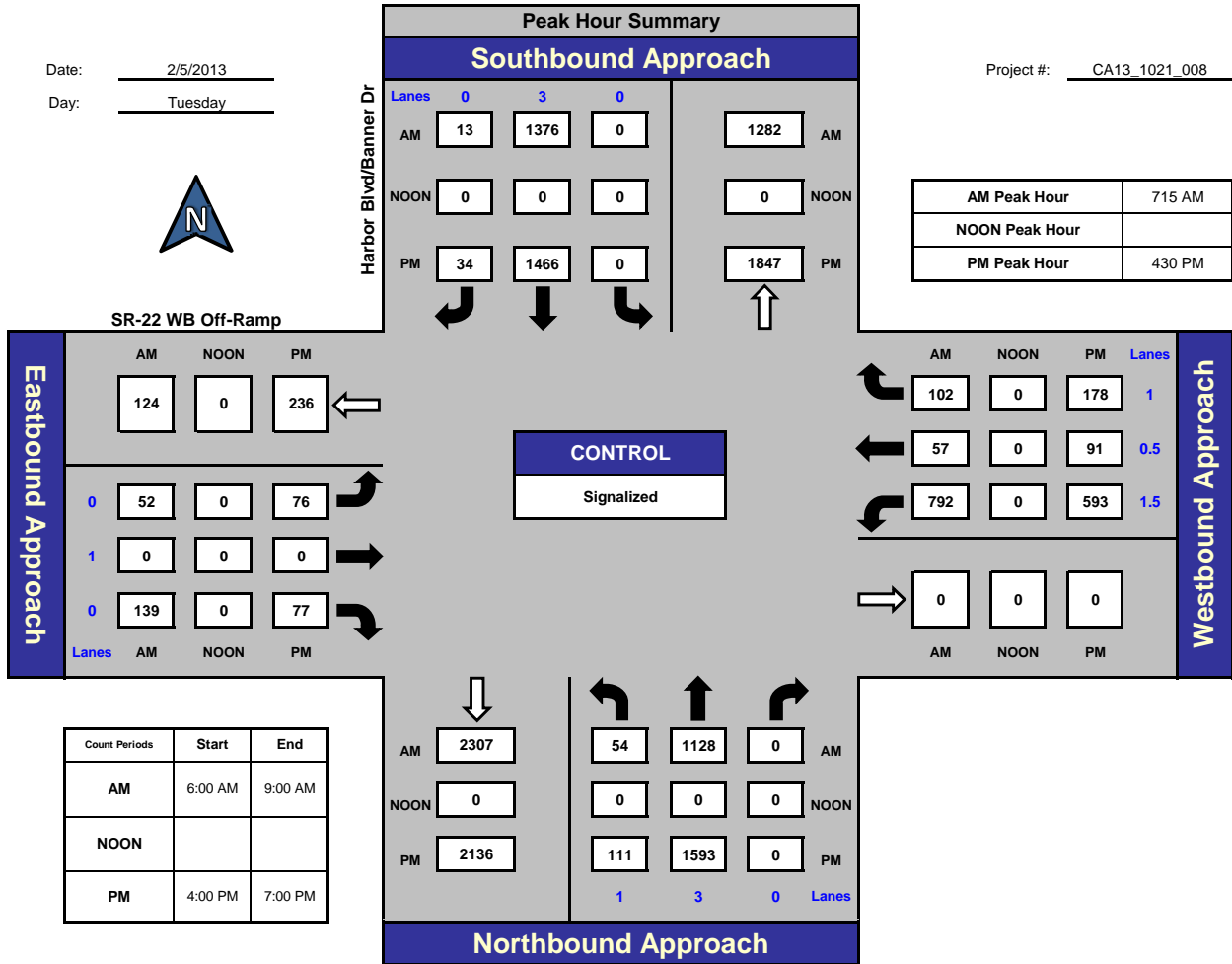


National Data & Surveying Services

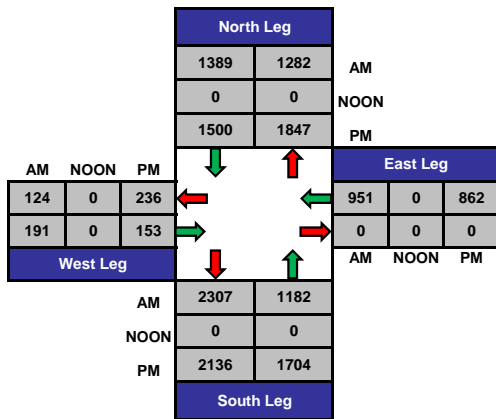
## Harbor Blvd/Banner Dr and SR-22 WB Off-Ramp, City of Santa Ana

Date: 2/5/2013  
Day: Tuesday

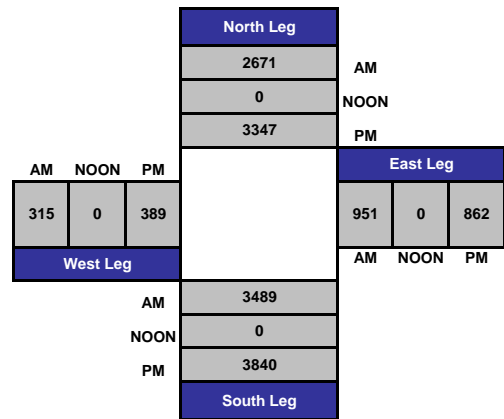
Project #: CA13\_1021\_008



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

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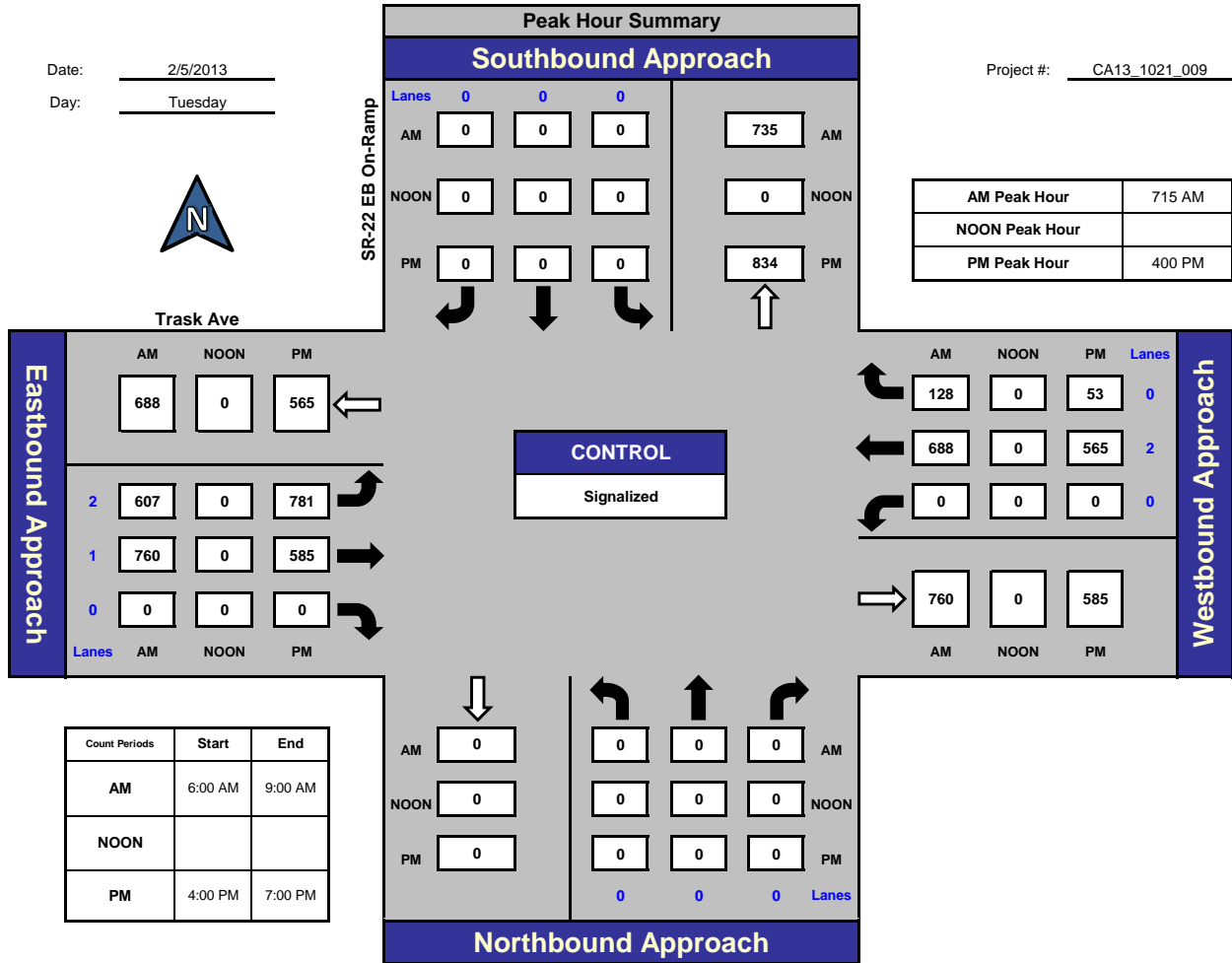
National Data & Surveying Services

## SR-22 EB On-Ramp and Trask Ave., City of Santa Ana

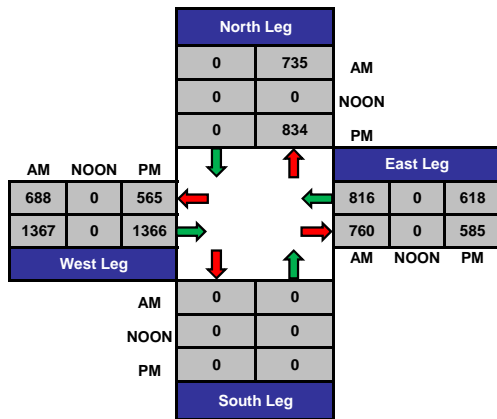
Date: 2/5/2013

Day: Tuesday

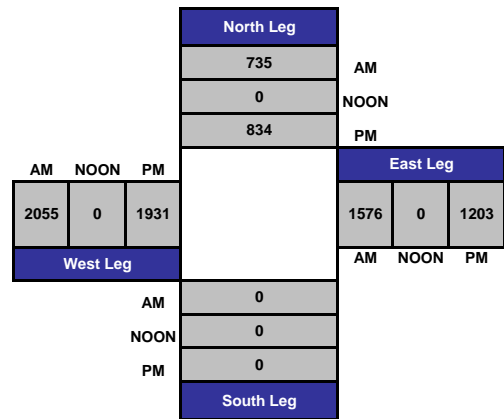
Project #: CA13\_1021\_009



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

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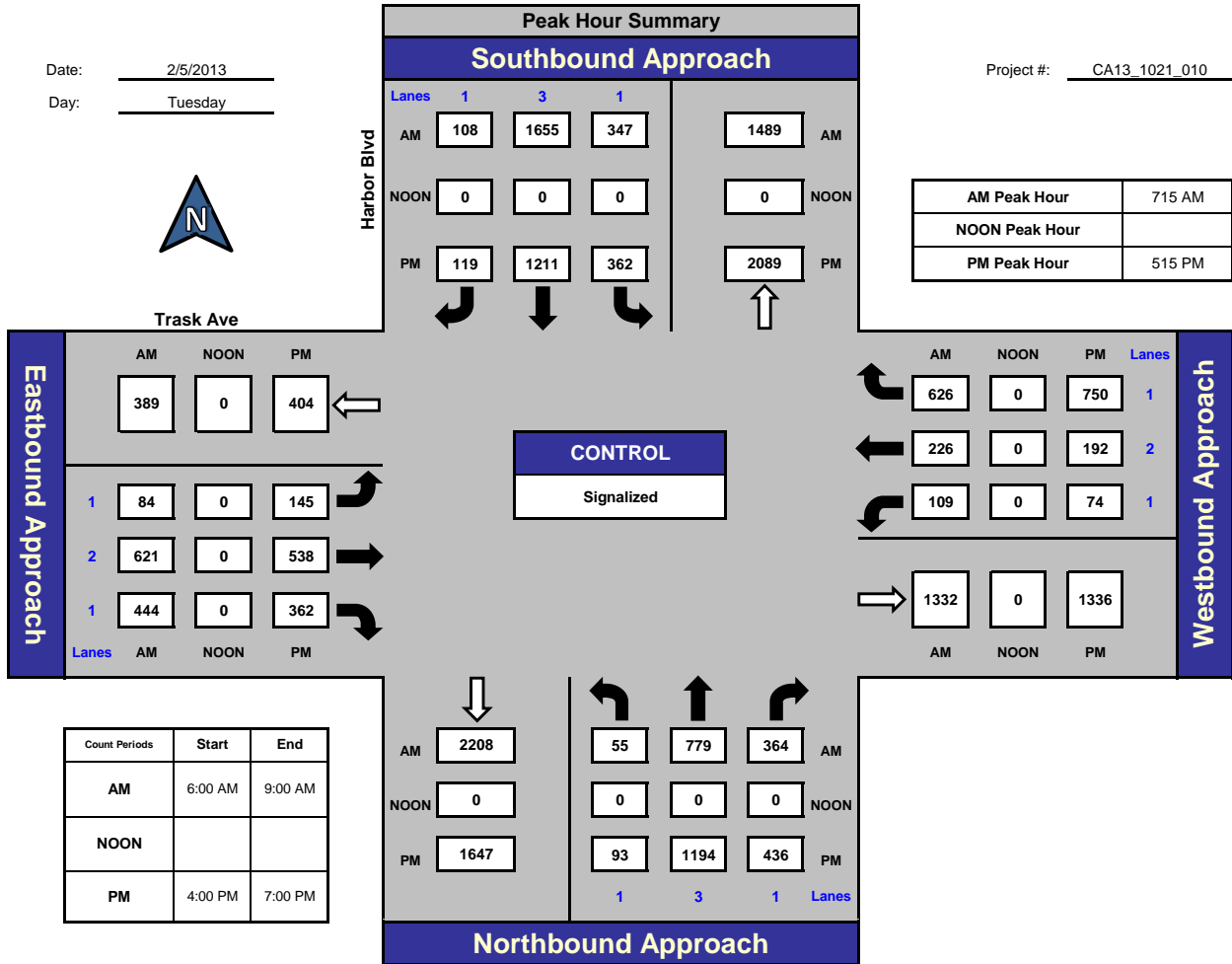
National Data & Surveying Services

## Harbor Blvd and Trask Ave, City of Santa Ana

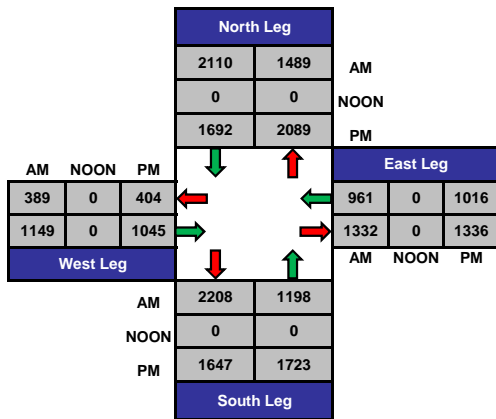
Date: 2/5/2013

Day: Tuesday

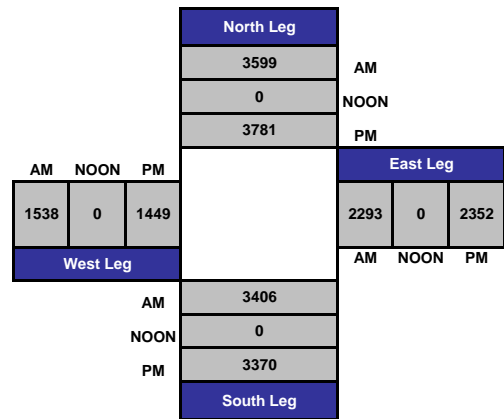
Project #: CA13\_1021\_010



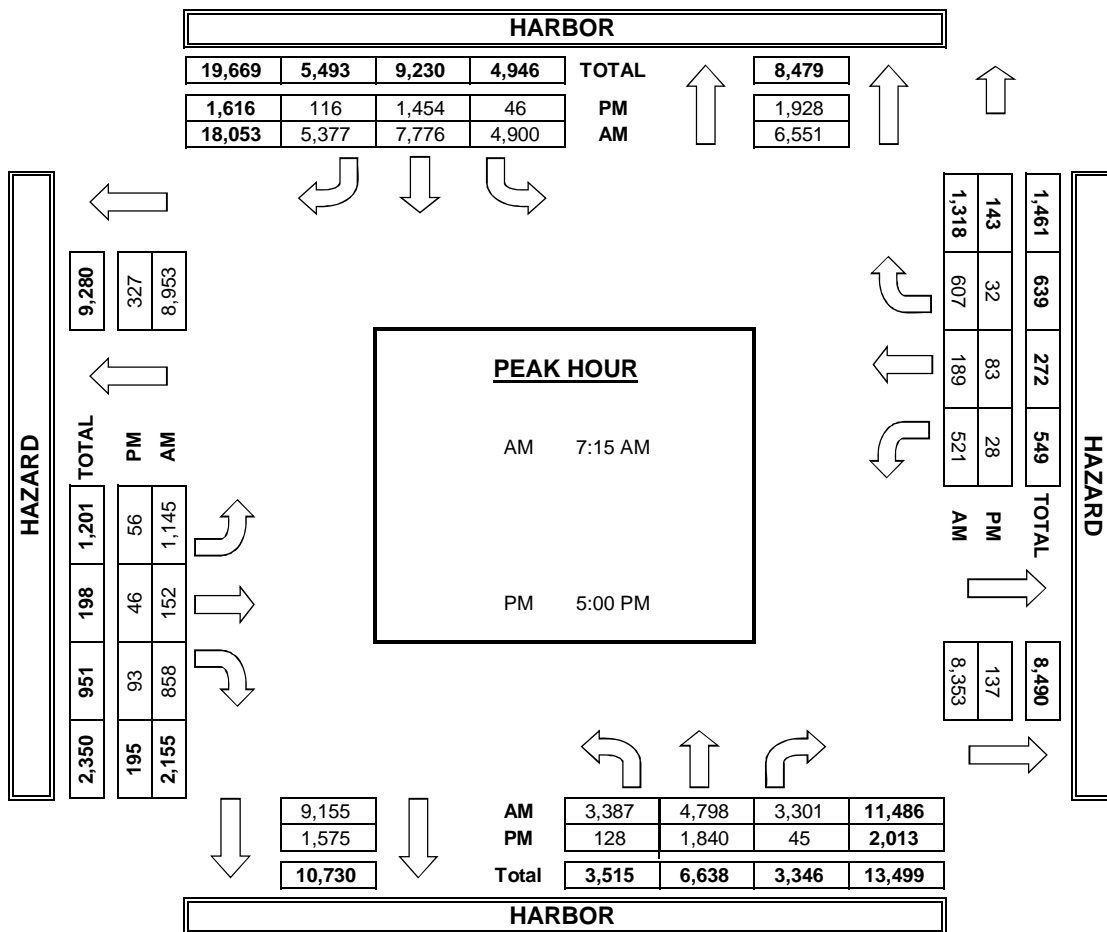
### Total Ins & Outs

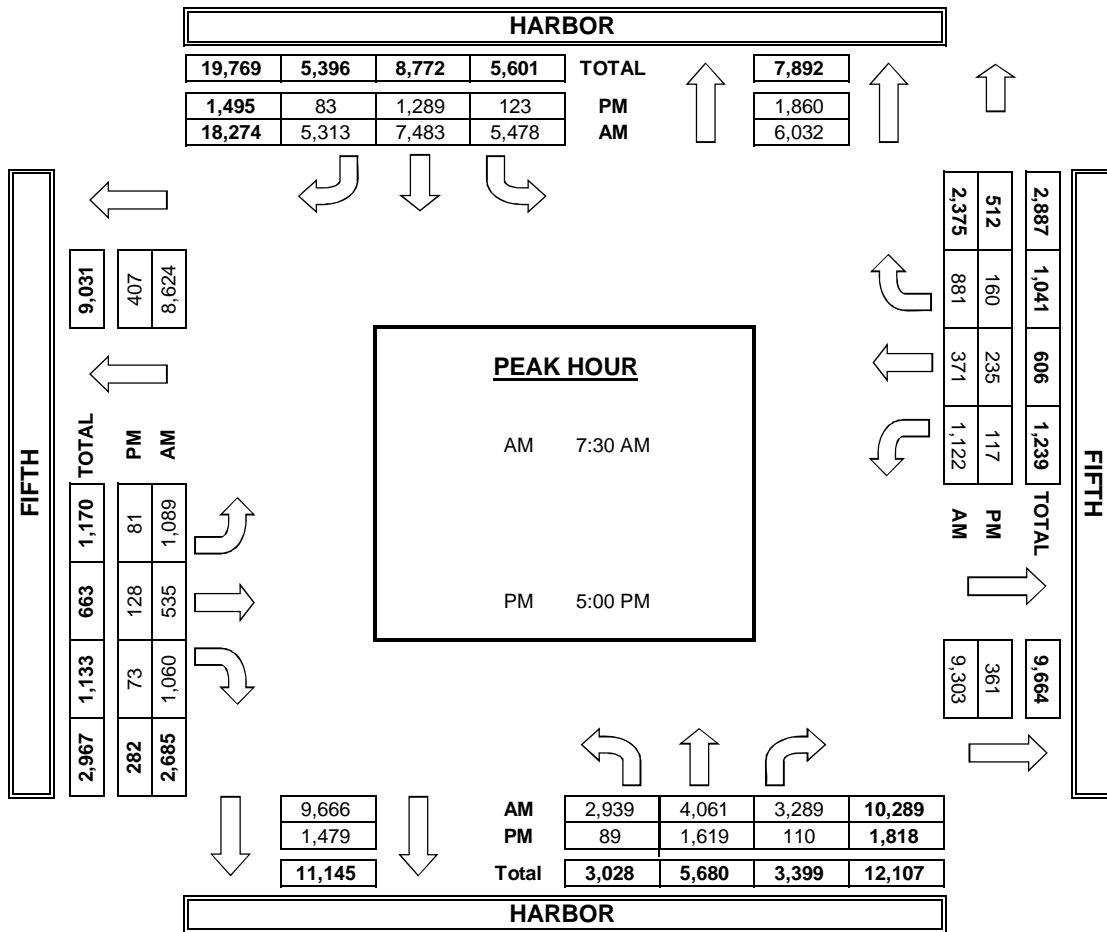


### Total Volume Per Leg

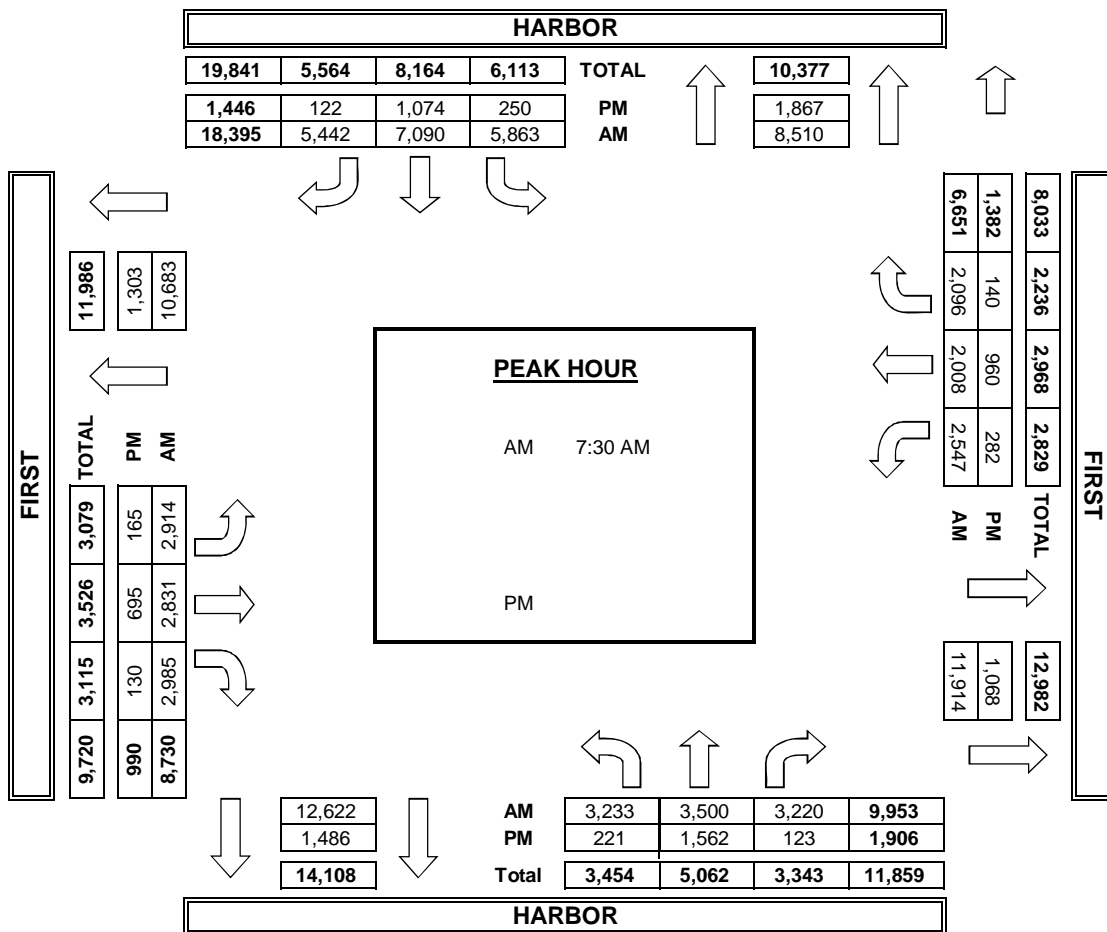


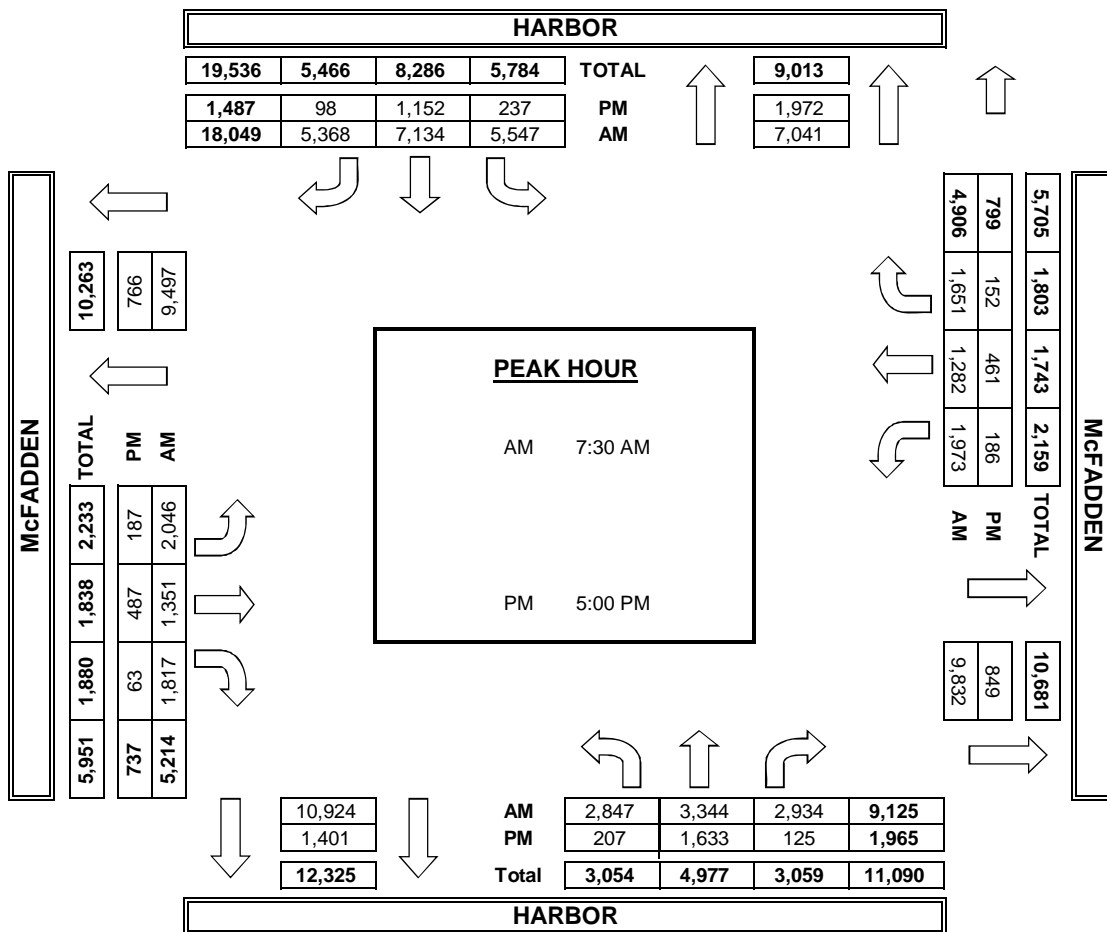




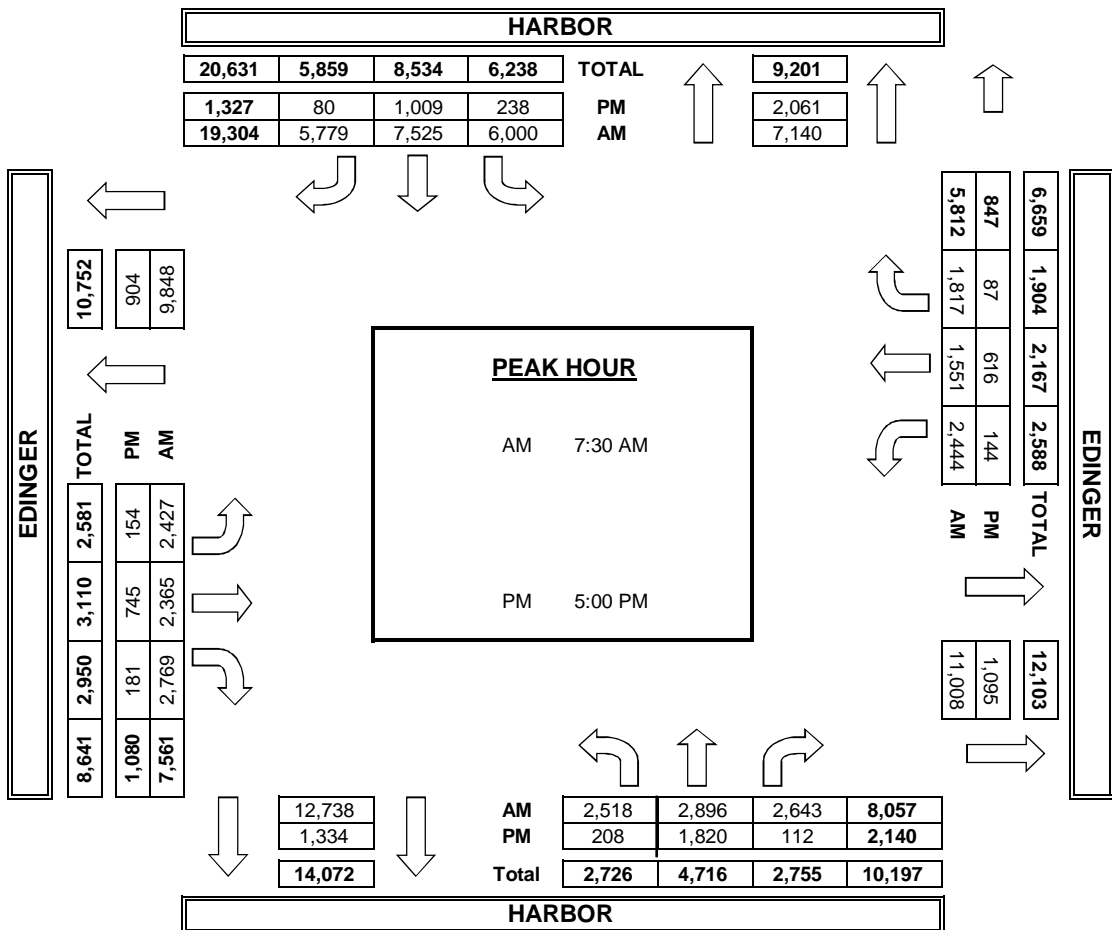
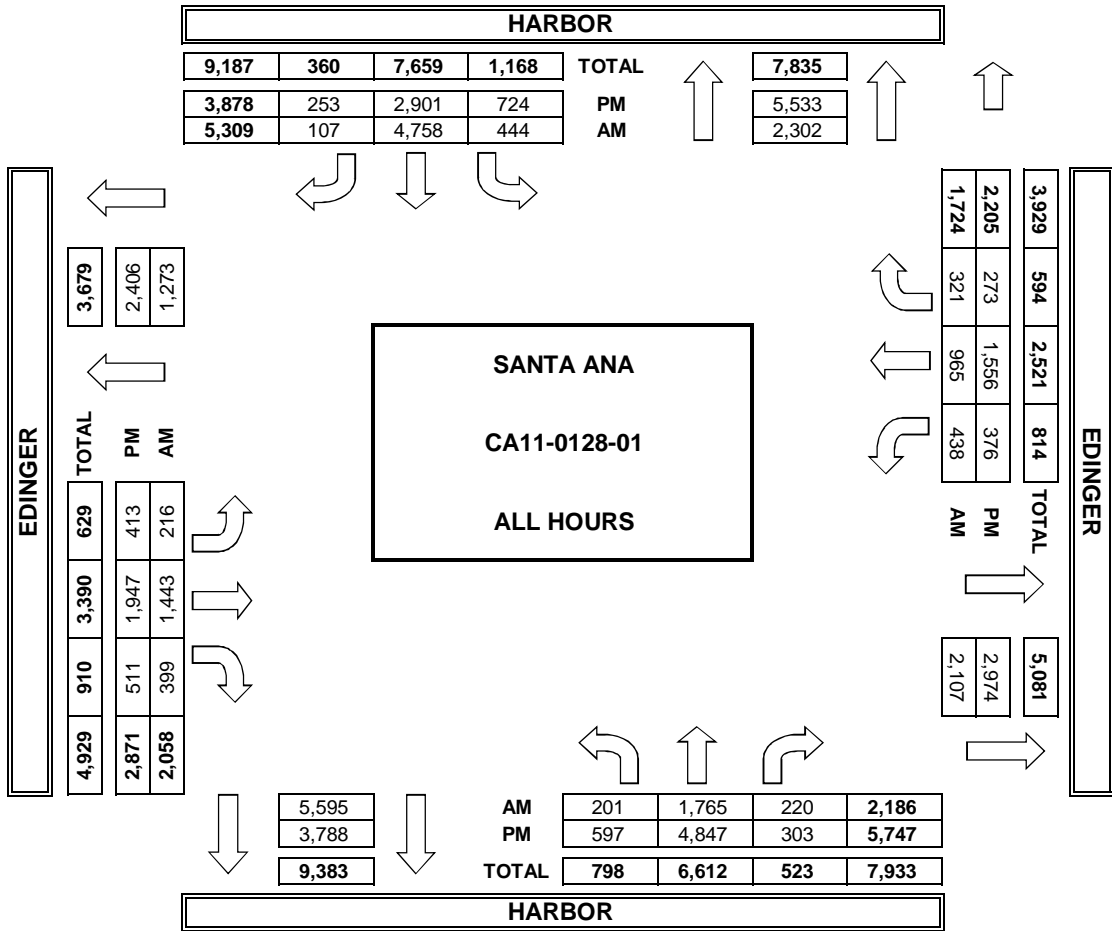








**PACIFIC TRAFFIC DATA SERVICES**  
TURNING MOVEMENT COUNTS



# ITM Peak Hour Summary

Prepared by:



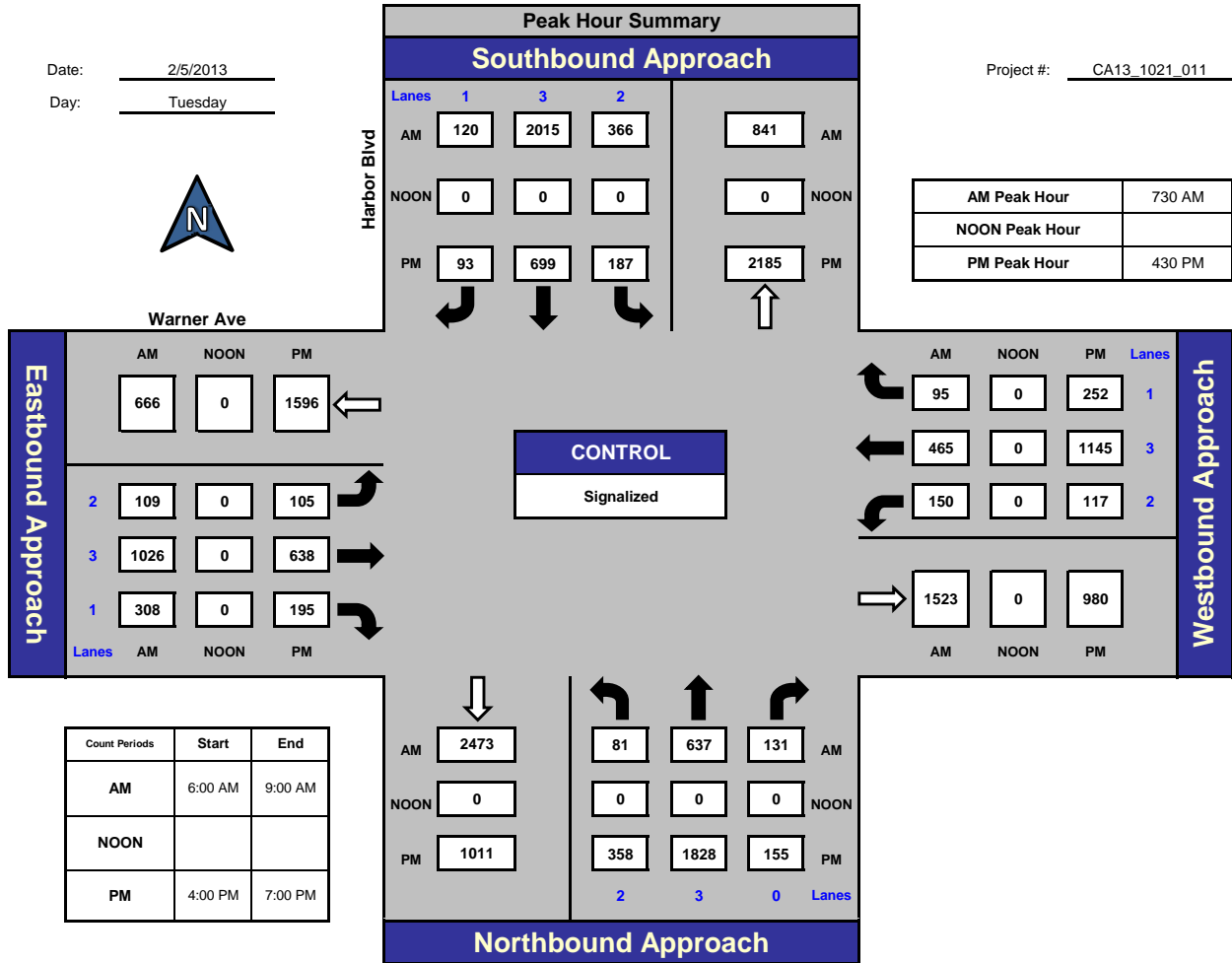
National Data & Surveying Services

## Harbor Blvd and Warner Ave., City of Santa Ana

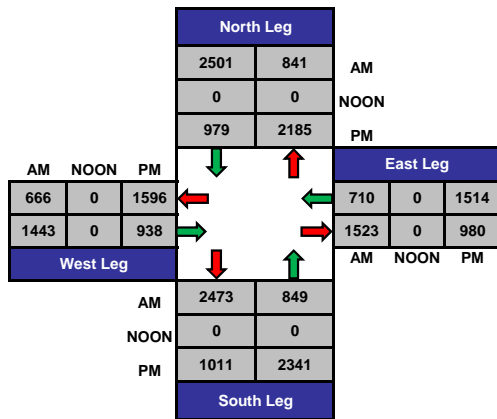
Date: 2/5/2013

Day: Tuesday

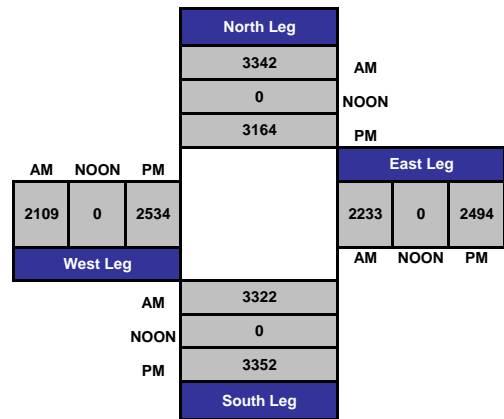
Project #: CA13\_1021\_011



### Total Ins & Outs



### Total Volume Per Leg



# INTERSECTION TURNING MOVEMENT COUNTS

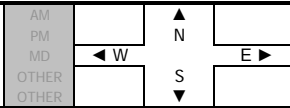
PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:  
6/6/12  
WEDNESDAY

LOCATION:  
NORTH & SOUTH: **SANTA ANA  
HARBOR**  
EAST & WEST: **SLATER**

PROJECT #: **SC0060**  
LOCATION #: **5**  
CONTROL: **SIGNAL**

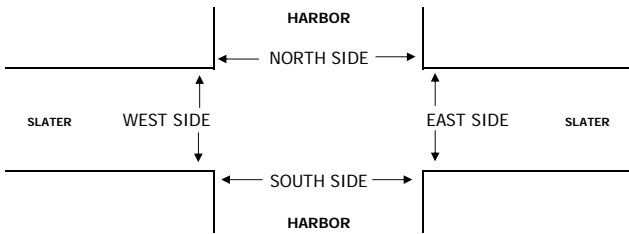
NOTES:



LANES:	NORTHBOUND HARBOR			SOUTHBOUND HARBOR			EASTBOUND SLATER			WESTBOUND SLATER			TOTAL	U-TURNS				
	NL 2	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1		NB X	SB X	EB X	WB X	TTL

TIME	NORTHBOUND HARBOR			SOUTHBOUND HARBOR			EASTBOUND SLATER			WESTBOUND SLATER			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
6:00 AM	8	68	12	21	170	14	7	43	18	8	27	12	408
6:15 AM	9	74	10	23	245	19	5	44	23	10	25	11	498
6:30 AM	11	91	12	25	283	17	6	36	34	13	26	7	561
6:45 AM	28	123	15	49	370	33	12	75	47	20	51	13	836
7:00 AM	17	146	8	26	332	24	18	79	42	12	54	21	779
7:15 AM	16	153	11	41	466	29	17	95	54	20	58	20	980
7:30 AM	22	152	17	34	560	19	15	117	65	22	76	22	1,121
7:45 AM	20	179	23	40	508	39	20	103	66	27	97	27	1,149
8:00 AM	26	187	11	49	540	24	25	111	54	17	75	24	1,143
8:15 AM	22	182	14	33	458	36	21	104	56	11	60	27	1,024
8:30 AM	19	179	9	31	440	18	11	85	44	12	56	9	913
8:45 AM	20	172	11	27	432	21	14	90	38	15	48	11	899
VOLUMES	218	1,706	153	399	4,804	293	171	982	541	187	653	204	10,311
APPROACH %	10%	82%	7%	7%	87%	5%	10%	58%	32%	18%	63%	20%	
APP/DEPART	2,077	/	2,081	5,496	/	5,532	1,694	/	1,534	1,044	/	1,164	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	90	700	65	156	2,066	118	81	435	241	77	308	100	4,437
APPROACH %	11%	82%	8%	7%	88%	5%	11%	57%	32%	16%	64%	21%	
PEAK HR FACTOR	0.954			0.954			0.961			0.803			0.965
APP/DEPART	855	/	881	2,340	/	2,384	757	/	656	485	/	516	0
<b>PM</b>													
4:00 PM	39	401	13	26	211	26	43	90	27	14	167	43	1,100
4:15 PM	48	435	13	25	230	19	24	73	39	14	177	56	1,153
4:30 PM	57	469	10	20	221	21	44	94	41	16	168	49	1,210
4:45 PM	55	477	15	21	218	18	33	101	43	18	184	57	1,240
5:00 PM	65	488	18	18	222	15	27	118	36	16	190	79	1,292
5:15 PM	48	561	15	24	251	22	15	99	50	21	250	85	1,441
5:30 PM	53	492	11	19	238	16	21	103	40	16	233	63	1,305
5:45 PM	68	478	10	9	227	9	17	90	35	18	203	57	1,221
6:00 PM	56	409	18	18	190	9	18	85	33	12	158	55	1,061
6:15 PM	42	422	8	15	171	5	11	71	44	12	133	46	980
6:30 PM	36	365	14	15	196	12	18	72	23	15	108	29	903
6:45 PM	40	337	12	11	177	10	16	66	29	11	98	33	840
VOLUMES	607	5,334	157	221	2,552	182	287	1,062	440	183	2,069	652	13,746
APPROACH %	10%	87%	3%	7%	86%	6%	16%	59%	25%	6%	71%	22%	
APP/DEPART	6,098	/	6,273	2,955	/	3,175	1,789	/	1,440	2,904	/	2,858	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	221	2,018	59	82	929	71	96	421	169	71	857	284	5,278
APPROACH %	10%	88%	3%	8%	86%	7%	14%	61%	25%	6%	71%	23%	
PEAK HR FACTOR	0.921			0.911			0.948			0.851			0.916
APP/DEPART	2,298	/	2,398	1,082	/	1,169	686	/	562	1,212	/	1,149	0

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



TIME	PEDESTRIAN CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
6:00 AM	0	1	2	0	3
6:15 AM	3	0	0	3	6
6:30 AM	1	2	7	3	13
6:45 AM	1	1	0	0	2
7:00 AM	0	2	0	0	2
7:15 AM	2	3	4	0	9
7:30 AM	3	0	0	3	6
7:45 AM	1	1	0	1	3
8:00 AM	1	1	1	1	4
8:15 AM	1	0	0	1	2
8:30 AM	0	2	0	0	2
8:45 AM	0	2	0	0	2
TOTAL	13	15	14	12	54
<b>PM</b>					
4:00 PM	0	2	0	0	2
4:15 PM	3	0	3	0	6
4:30 PM	2	0	0	0	2
4:45 PM	2	2	0	0	4
5:00 PM	2	1	0	1	4
5:15 PM	0	2	0	0	2
5:30 PM	1	1	4	1	7
5:45 PM	1	0	1	1	3
6:00 PM	0	1	0	3	4
6:15 PM	0	1	0	0	1
6:30 PM	0	1	0	2	3
6:45 PM	1	1	1	0	3
TOTAL	12	12	9	8	41

TIME	BICYCLE CROSSING				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
6:00 AM	0	0	1	0	1
6:15 AM	1	0	0	0	1
6:30 AM	2	1	2	1	6
6:45 AM	1	2	2	2	7
7:00 AM	0	2	0	0	2
7:15 AM	1	1	0	1	3
7:30 AM	1	0	0	0	1
7:45 AM	0	3	0	3	6
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	1	1
8:30 AM	0	2	0	0	2
8:45 AM	0	0	0	0	0
TOTAL	6	11	5	8	30
<b>PM</b>					
4:00 PM	0	2	0	0	2
4:15 PM	0	0	2	0	2
4:30 PM	0	0	2	0	2
4:45 PM	0	0	2	0	2
5:00 PM	0	0	0	0	0
5:15 PM	0	2	0	0	2
5:30 PM	0	3	3	0	6
5:45 PM	0	0	0	0	0
6:00 PM	0	1	0	0	1
6:15 PM	0	2	0	0	2
6:30 PM	0	1	0	0	1
6:45 PM	0	0	0	0	0
TOTAL	0	11	9	0	20

TIME	TOTAL CROSSINGS				TOTAL
	NS	SS	ES	WS	
6:00 AM	0	1	3	0	4
6:15 AM	4	0	0	3	7
6:30 AM	3	3	9	4	19
6:45 AM	2	3	2	2	9
7:00 AM	0	4	0	0	4
7:15 AM	3	4	4	1	12
7:30 AM	4	0	0	3	7
7:45 AM	1	4	0	4	9
8:00 AM	1	1	1	1	4
8:15 AM	1	0	0	2	3
8:30 AM	0	4	0	0	4
8:45 AM	0	2	0	0	2
TOTAL	19	26	19	20	84
<b>PM</b>					
4:00 PM	0	4	0	0	4
4:15 PM	3	0	5	0	8
4:30 PM	2	0	2	0	4
4:45 PM	2	2	2	0	6
5:00 PM	2	1	0	1	4
5:15 PM	0	4	0	0	4
5:30 PM	1	4	7	1	13
5:45 PM	1	0	1	1	3
6:00 PM	0	2	0	3	5
6:15 PM	0	3	0	0	3
6:30 PM	0	2	0	2	4
6:45 PM	1	1	1	0	3
TOTAL	12	23	18	8	61

# ITM Peak Hour Summary

Prepared by:



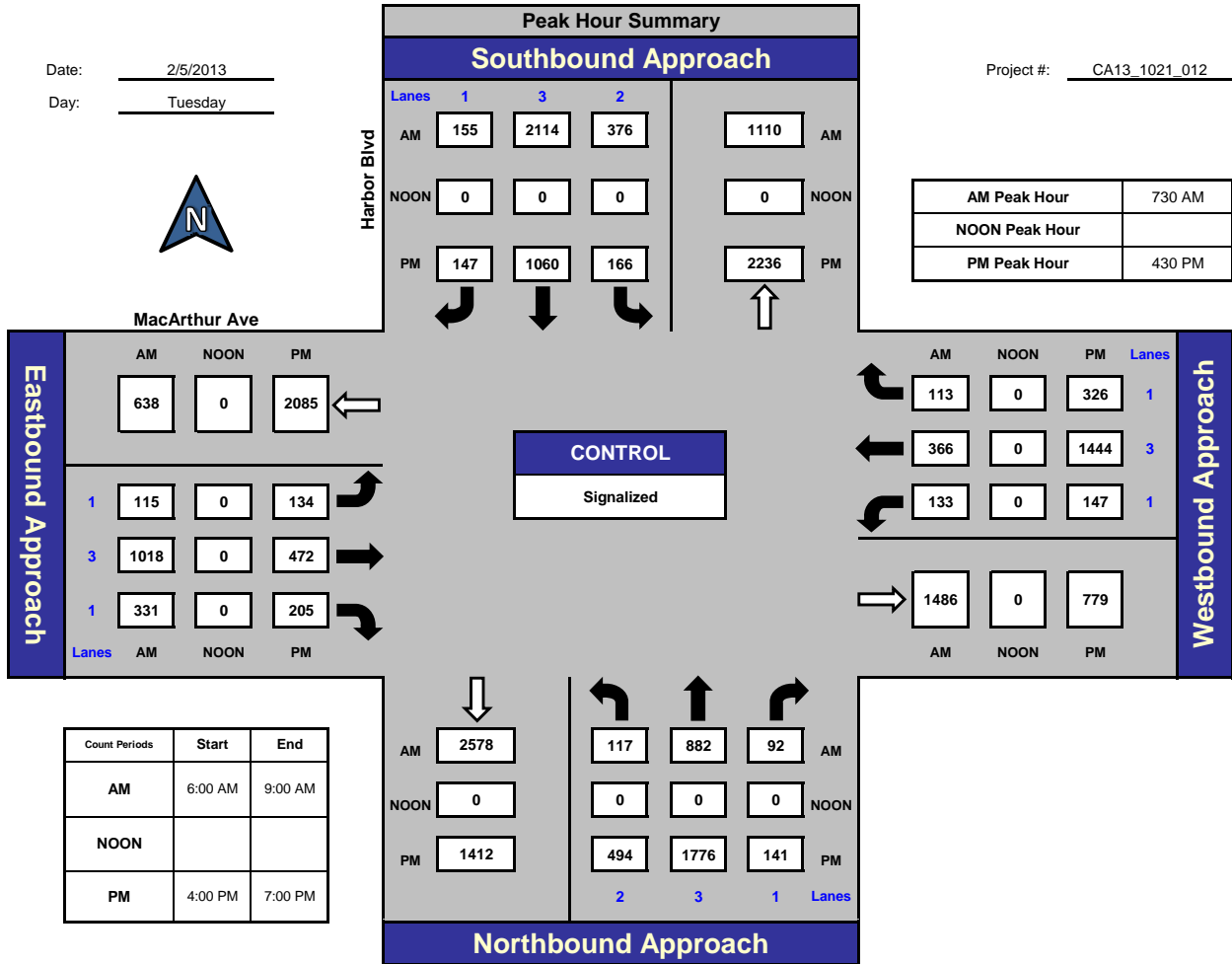
National Data & Surveying Services

## Harbor Blvd and MacArthur Ave., City of Santa Ana

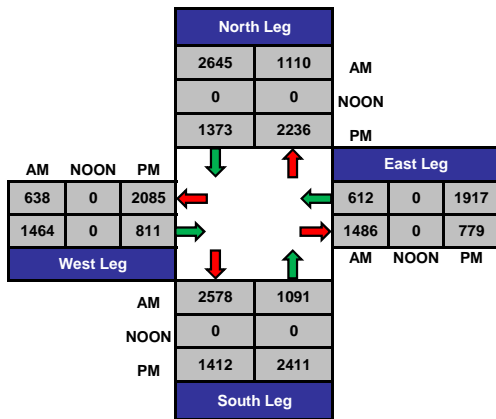
Date: 2/5/2013

Day: Tuesday

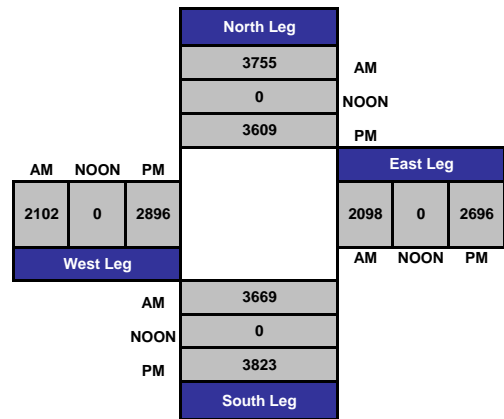
Project #: CA13\_1021\_012



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



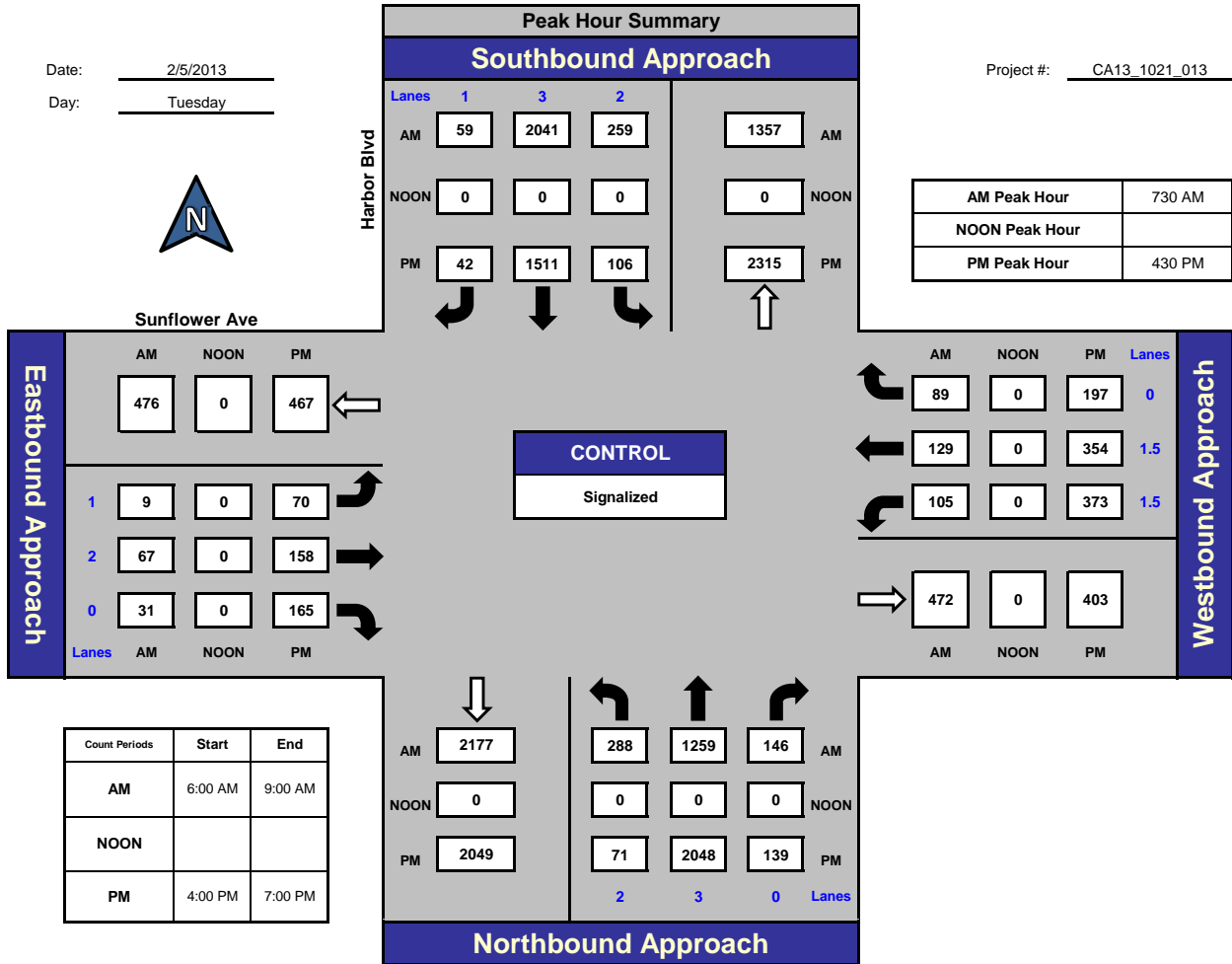
National Data & Surveying Services

## Harbor Blvd and Sunflower Ave., City of Santa Ana

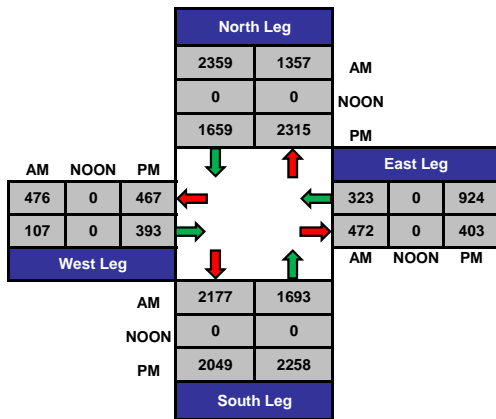
Date: 2/5/2013

Day: Tuesday

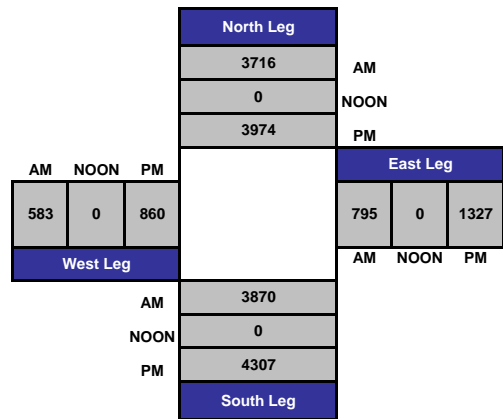
Project #: CA13\_1021\_013



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:

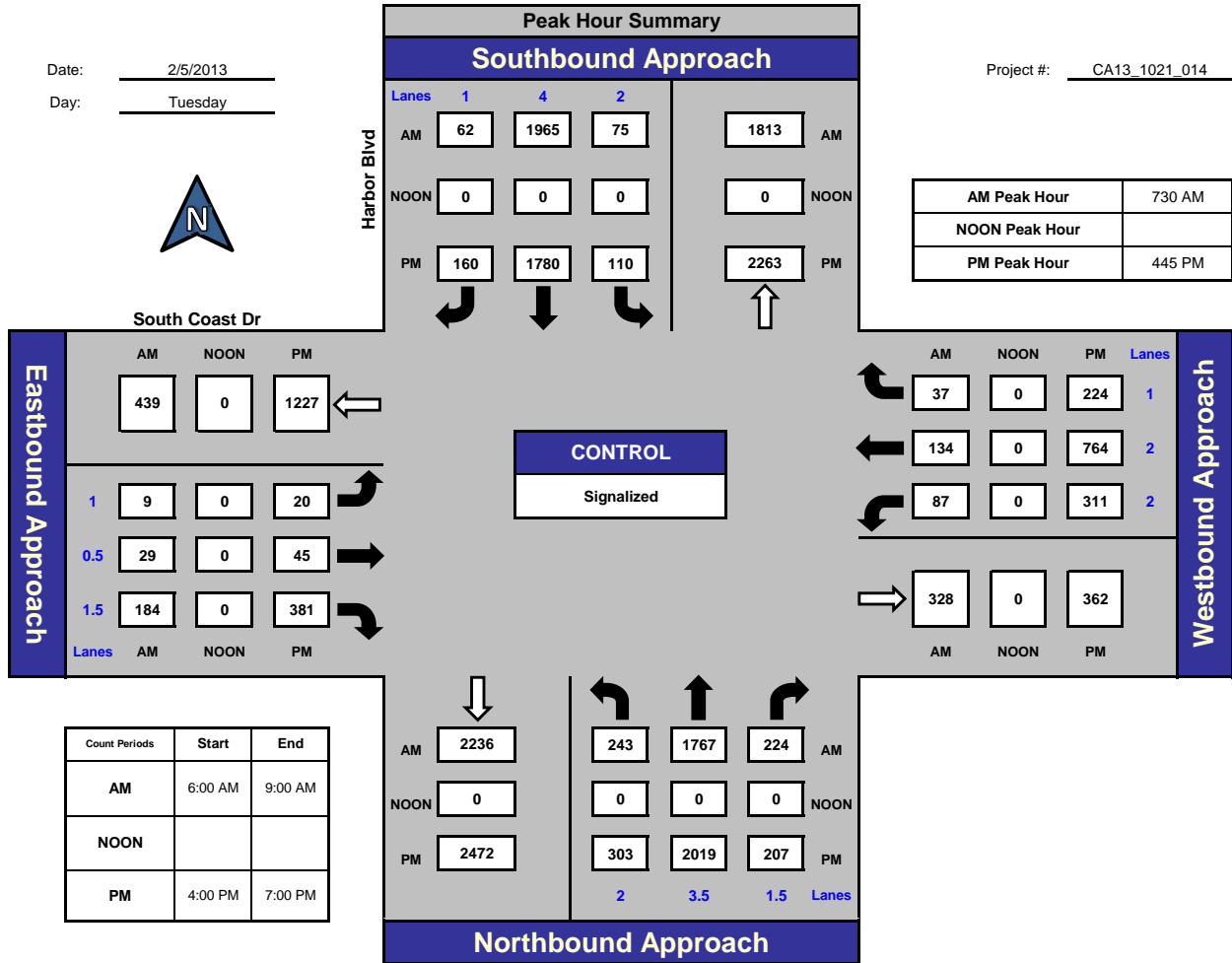


National Data & Surveying Services

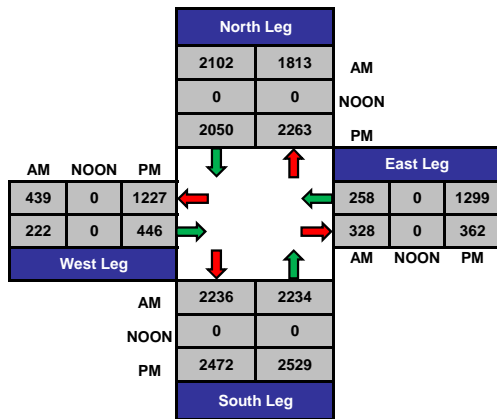
## Harbor Blvd and South Coast Dr., City of Santa Ana

Date: 2/5/2013  
Day: Tuesday

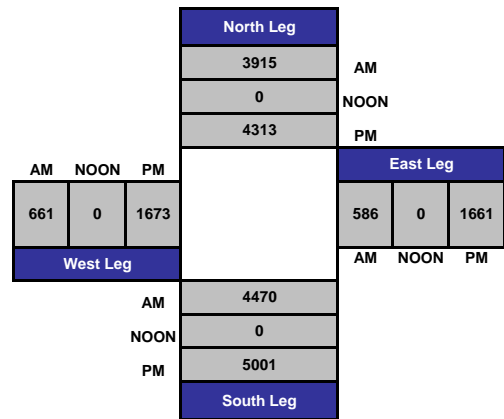
Project #: CA13\_1021\_014



### Total Ins & Outs



### Total Volume Per Leg





# ITM Peak Hour Summary

Prepared by:



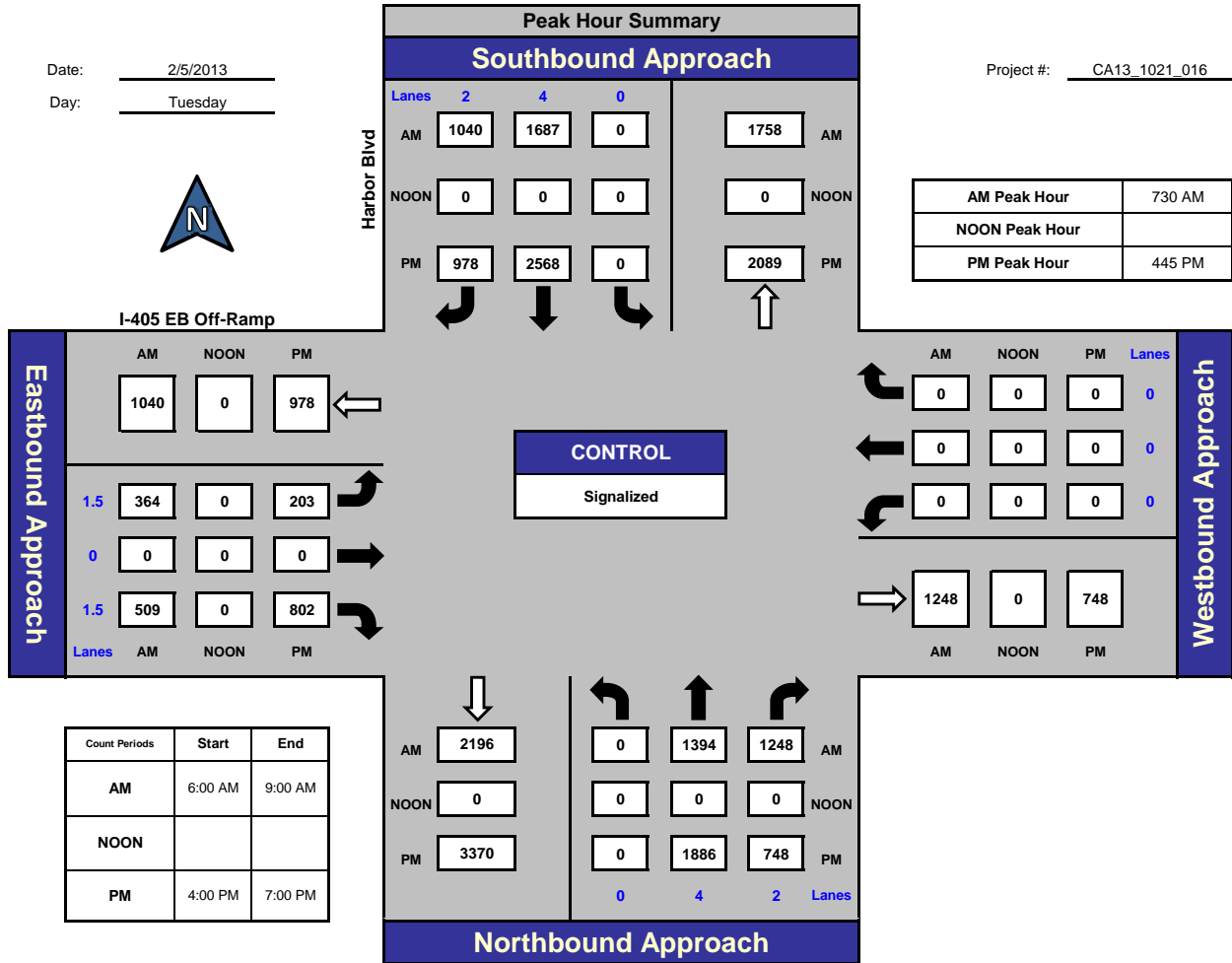
National Data & Surveying Services

## Harbor Blvd and I-405 EB Off-Ramp, City of Santa Ana

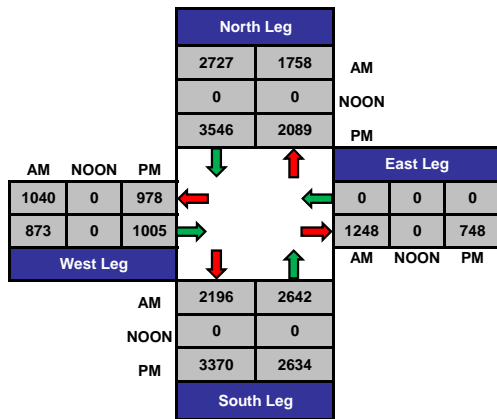
Date: 2/5/2013

Day: Tuesday

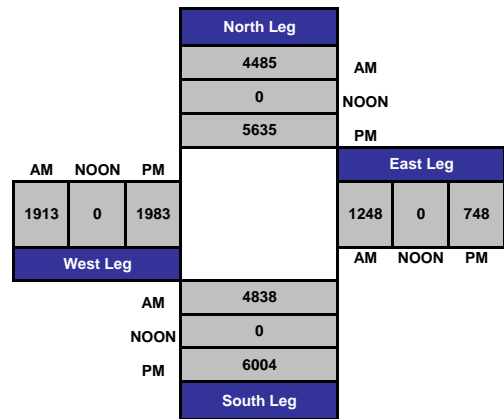
Project #: CA13\_1021\_016



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



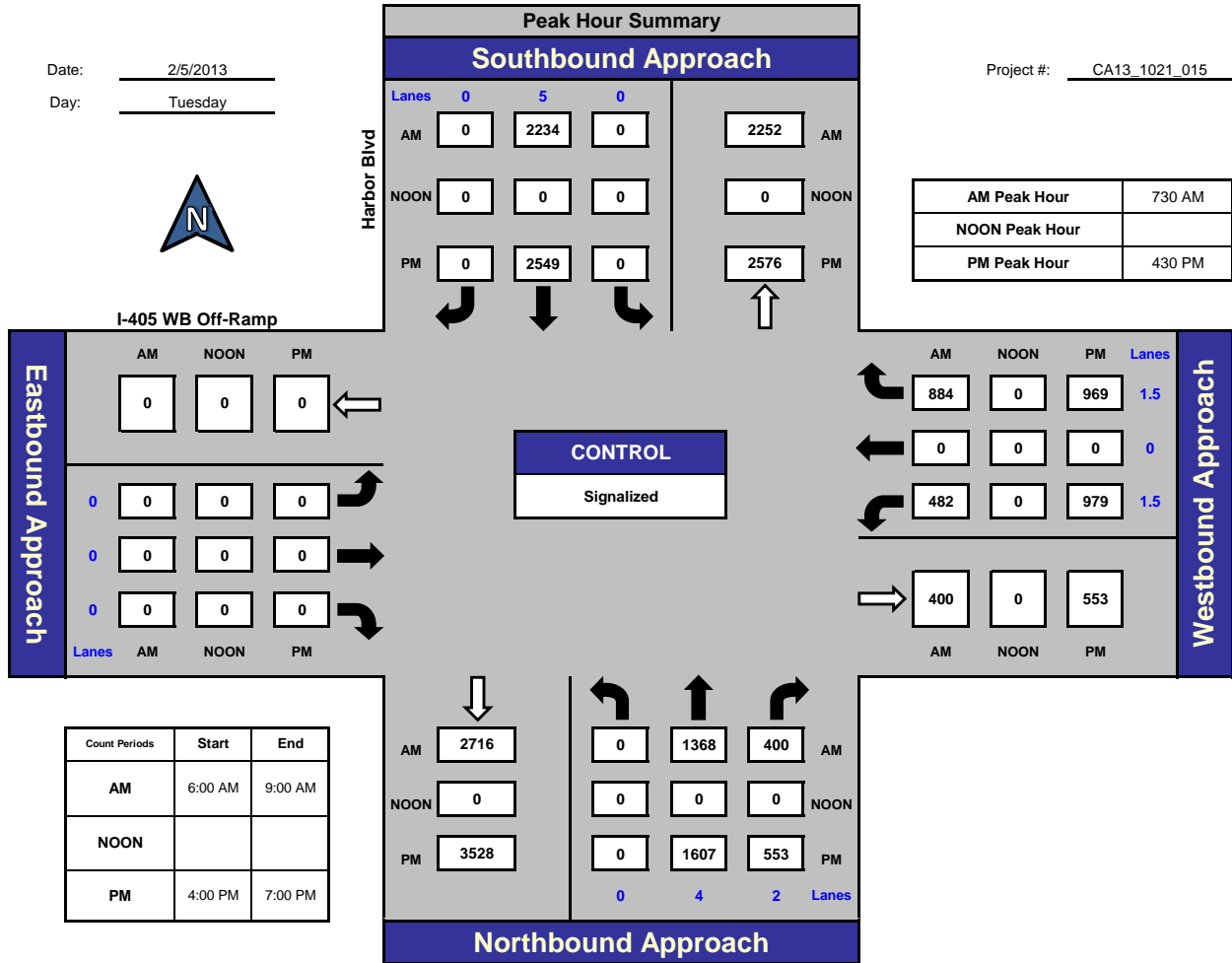
National Data & Surveying Services

## Harbor Blvd and I-405 WB Off-Ramp, City of Santa Ana

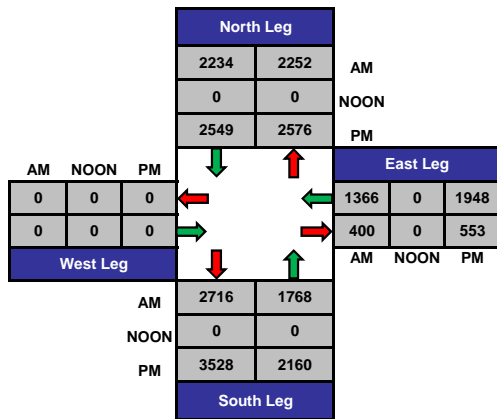
Date: 2/5/2013

Day: Tuesday

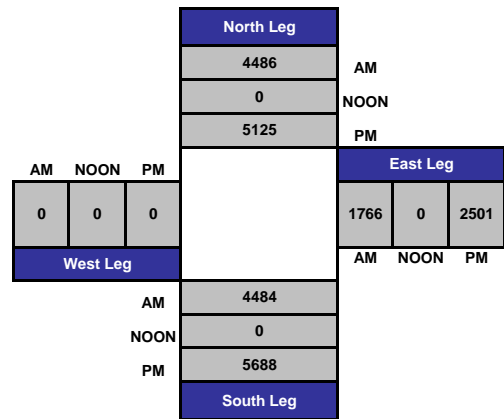
Project #: CA13\_1021\_015



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



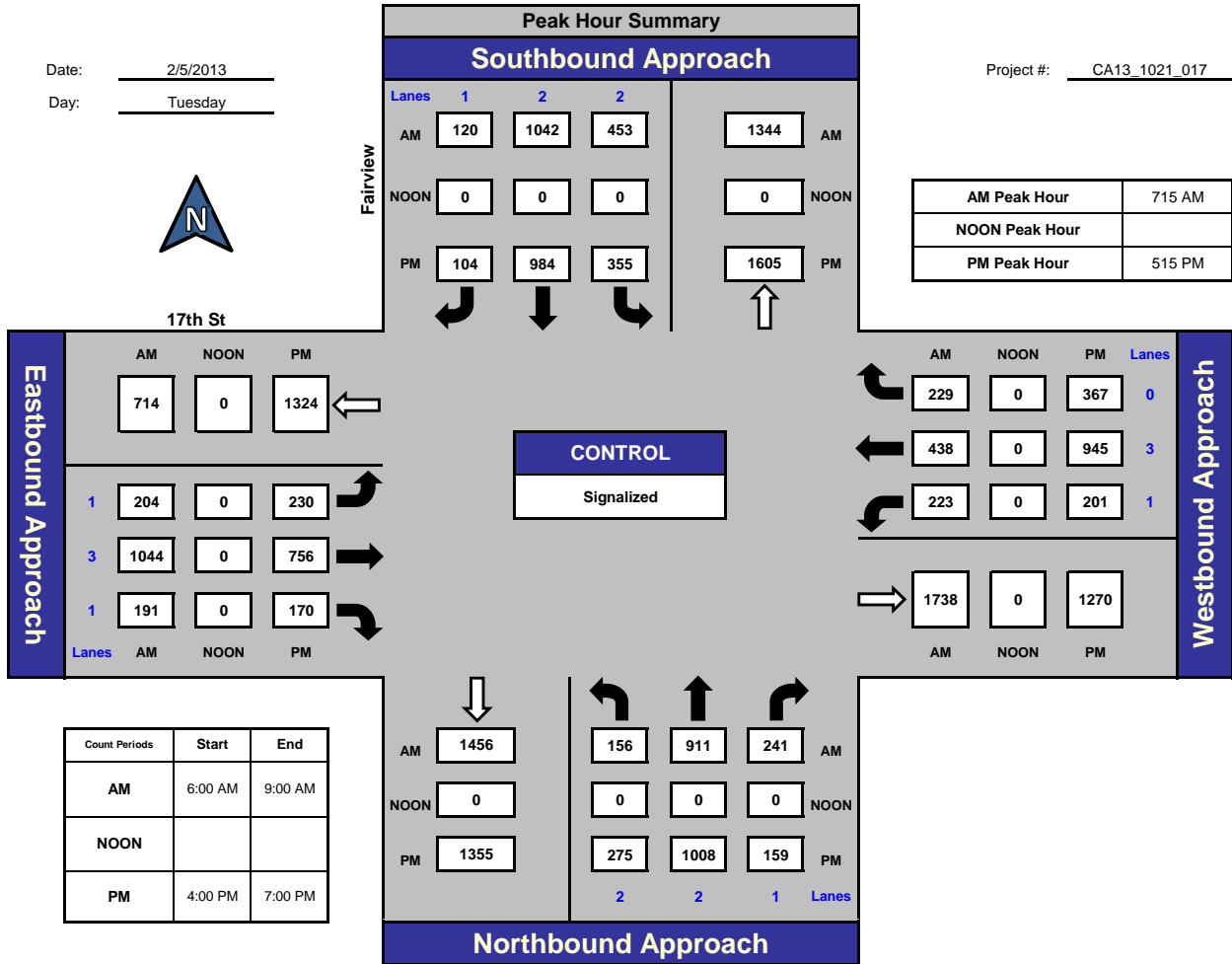
National Data & Surveying Services

## Fairview and 17th St., City of Santa Ana

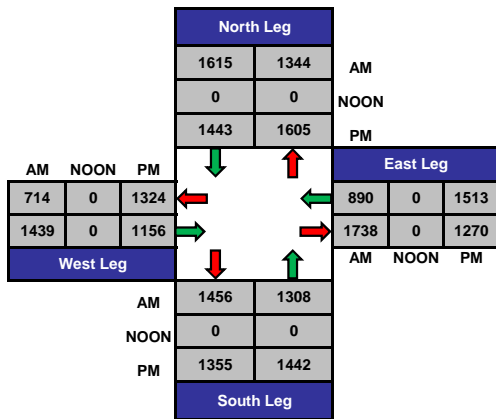
Date: 2/5/2013

Day: Tuesday

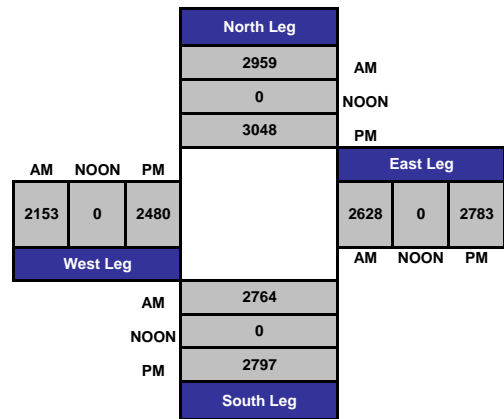
Project #: CA13\_1021\_017



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



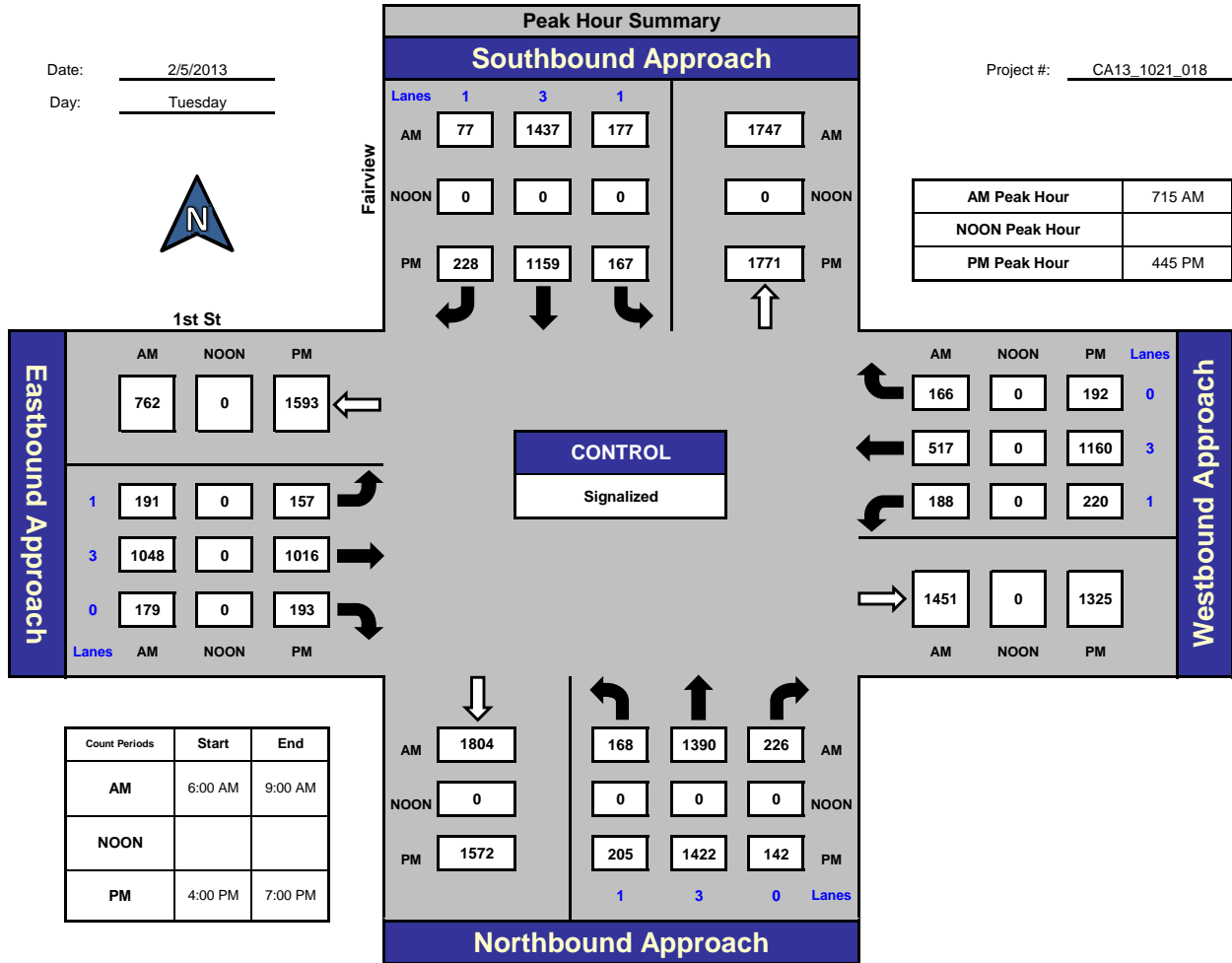
National Data & Surveying Services

## Fairview and 1st St., City of Santa Ana

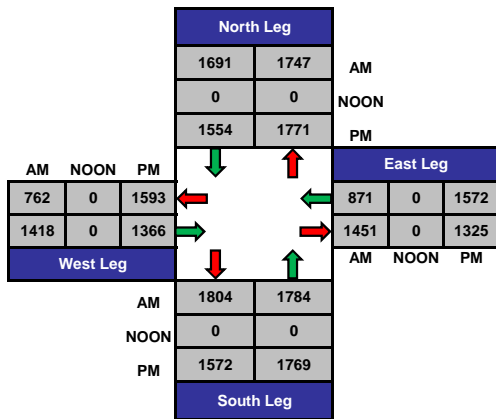
Date: 2/5/2013

Day: Tuesday

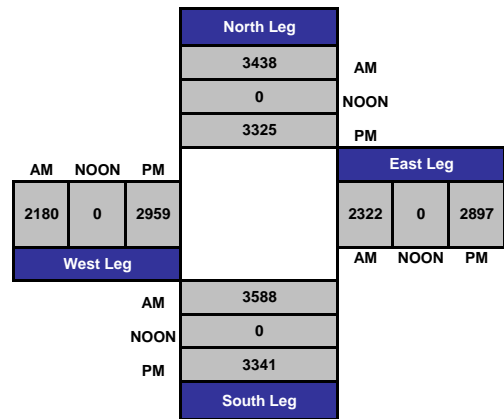
Project #: CA13\_1021\_018



### Total Ins & Outs



### Total Volume Per Leg







## **C. OCTAM LINK PLOTS**

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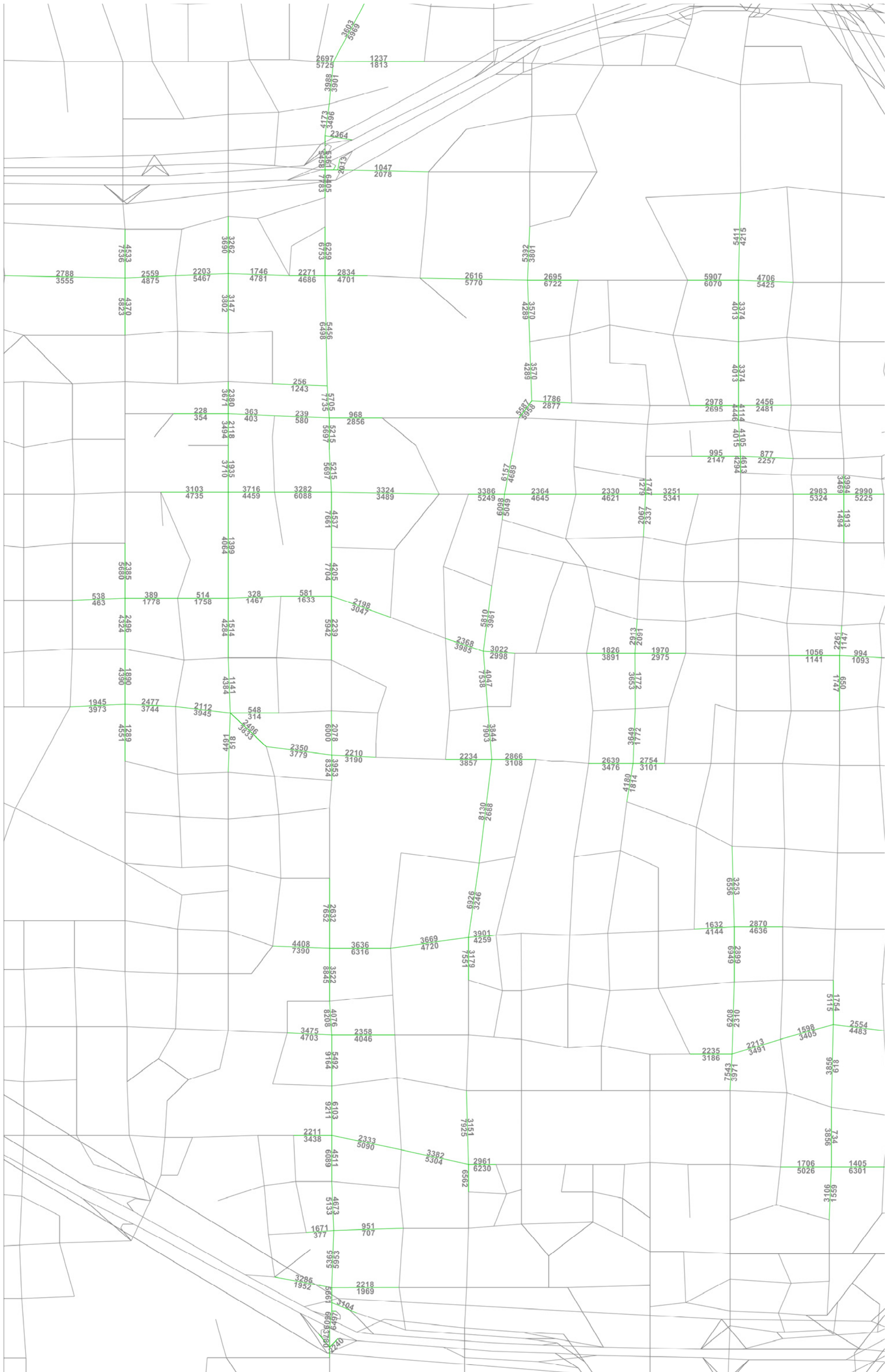
# 2010 No Project ADT



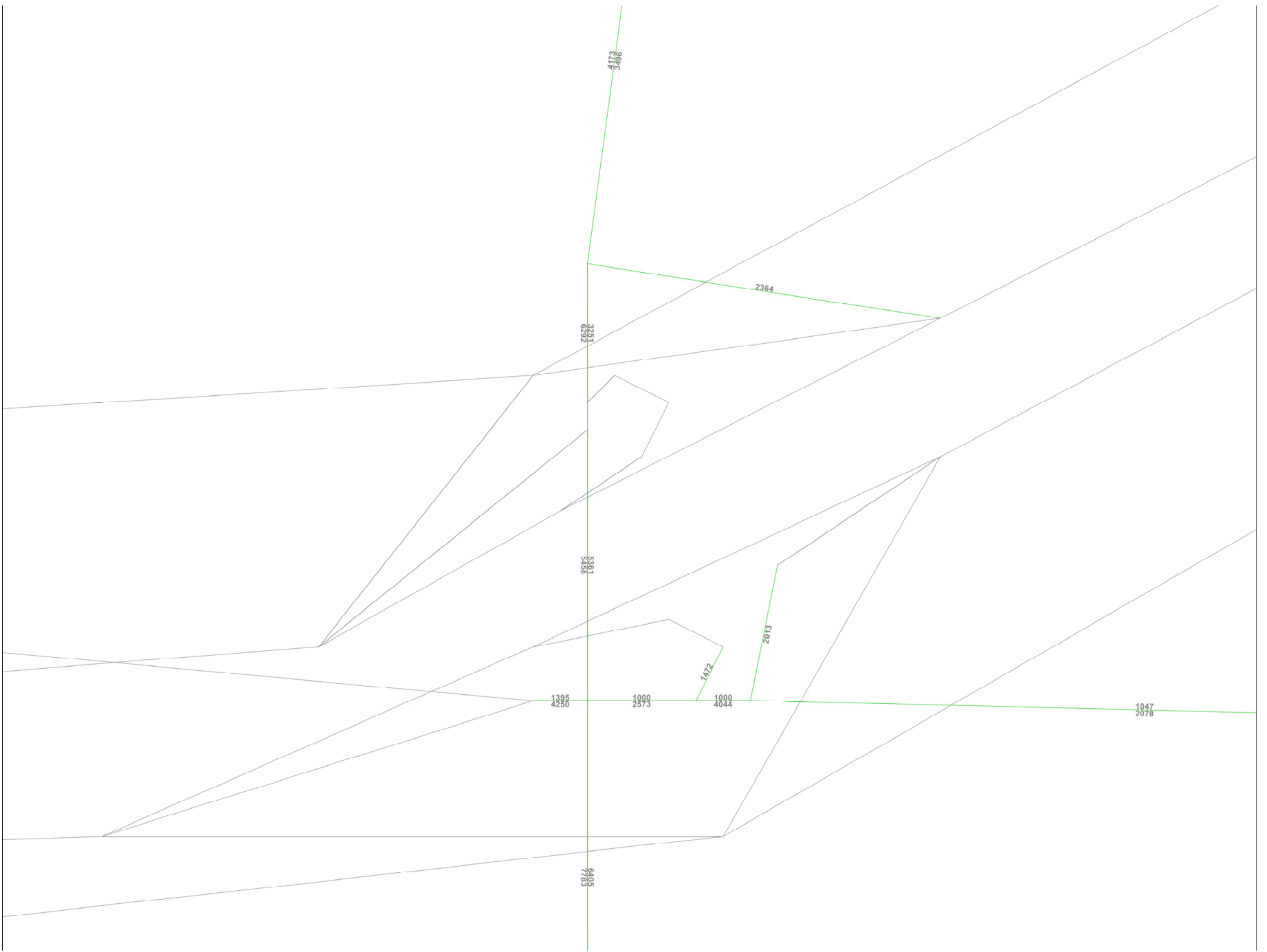




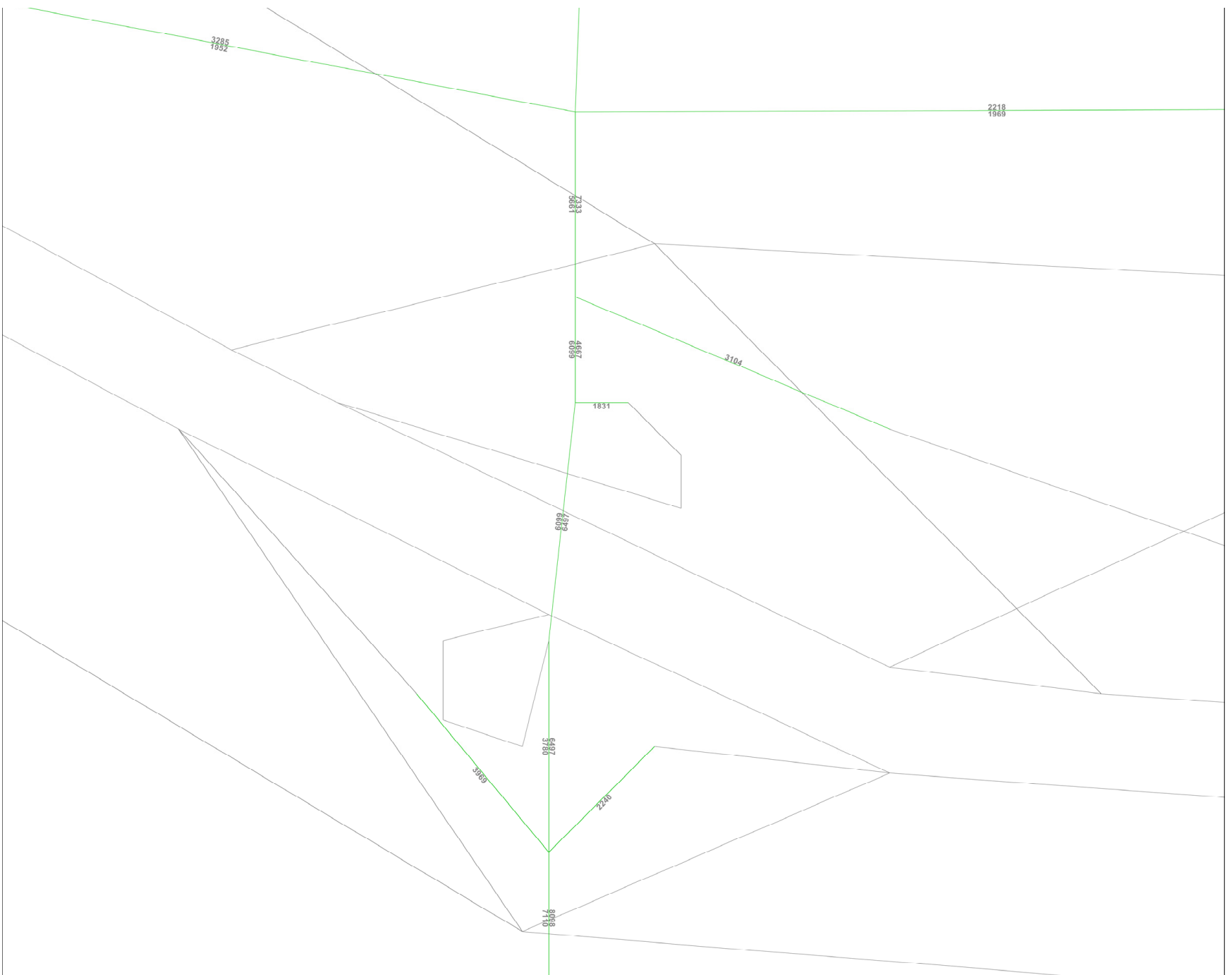
# 2010 No Project - AM



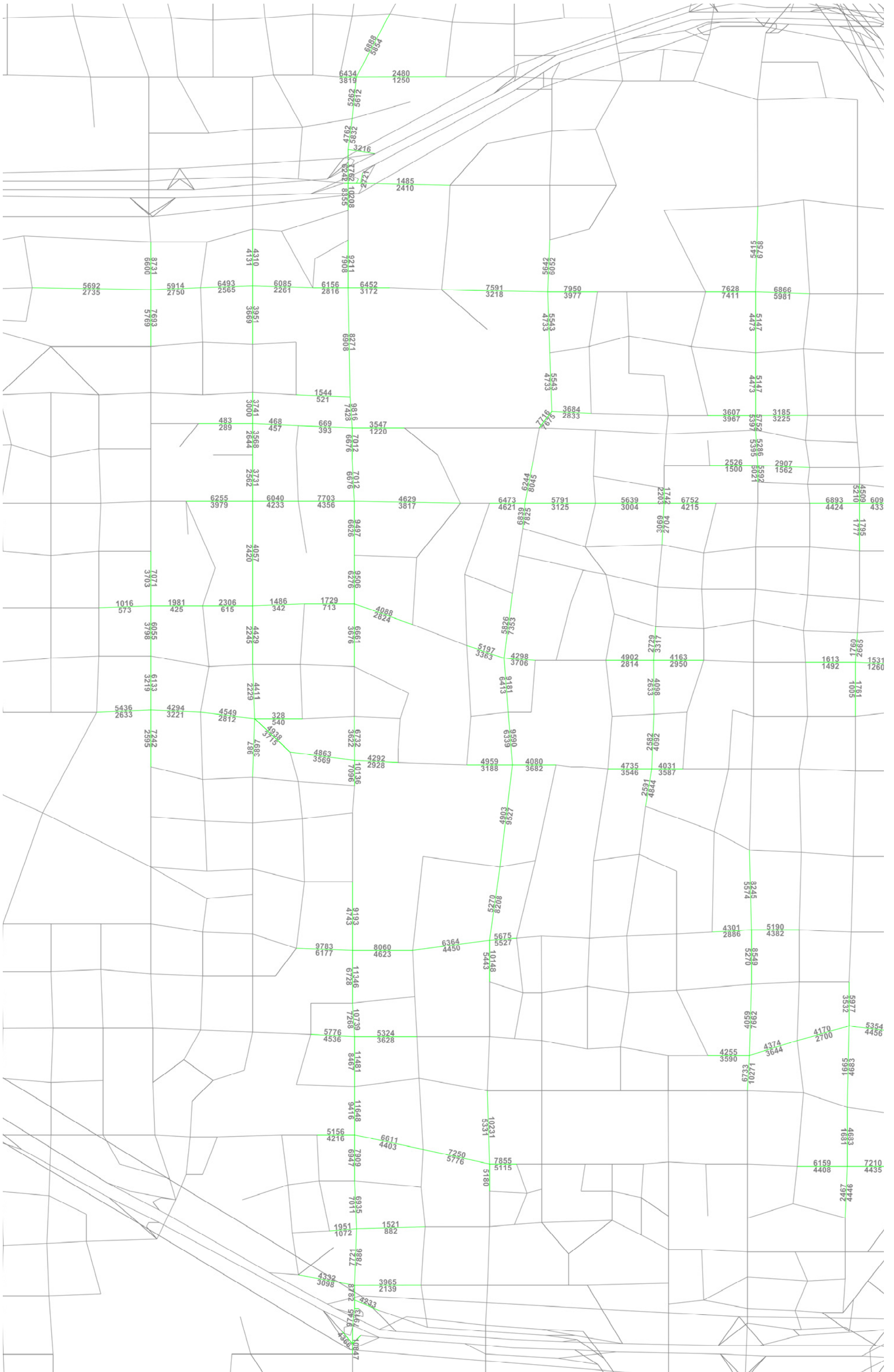
# 2010 No Project - AM (SR-22)



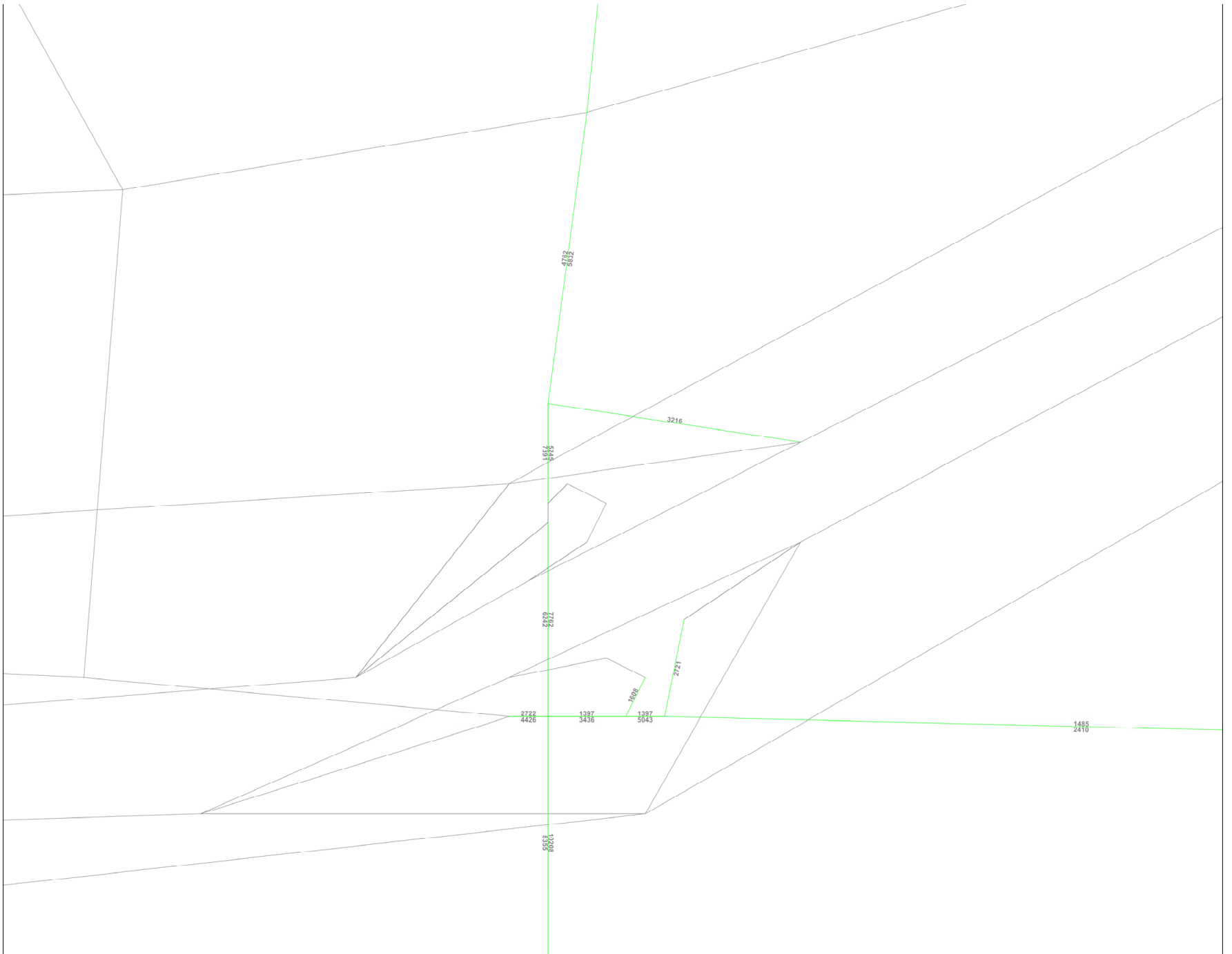
# 2010 No Project - AM (I-405)



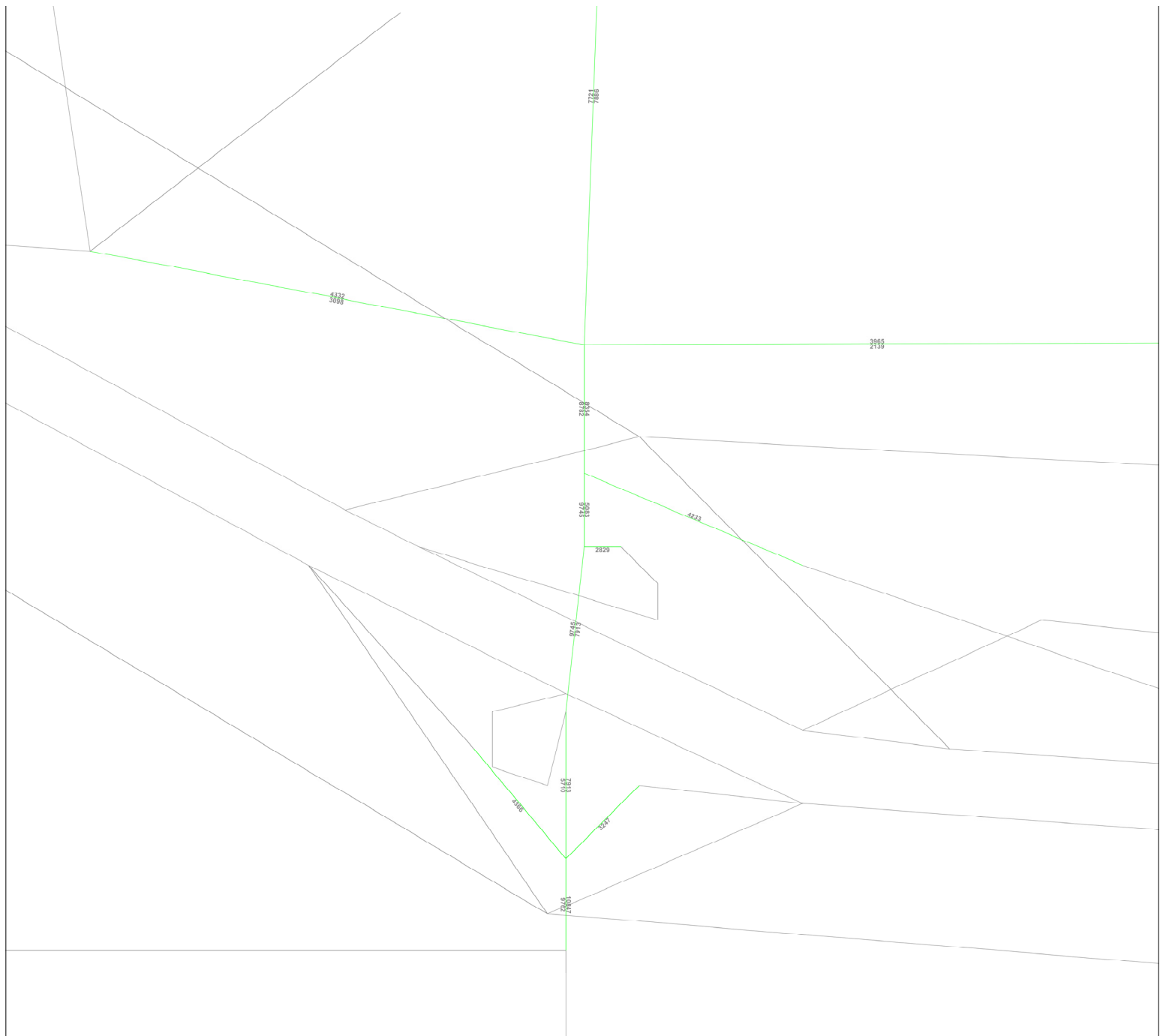
# 2010 No Project - PM



# 2010 No Project - PM (SR-22)



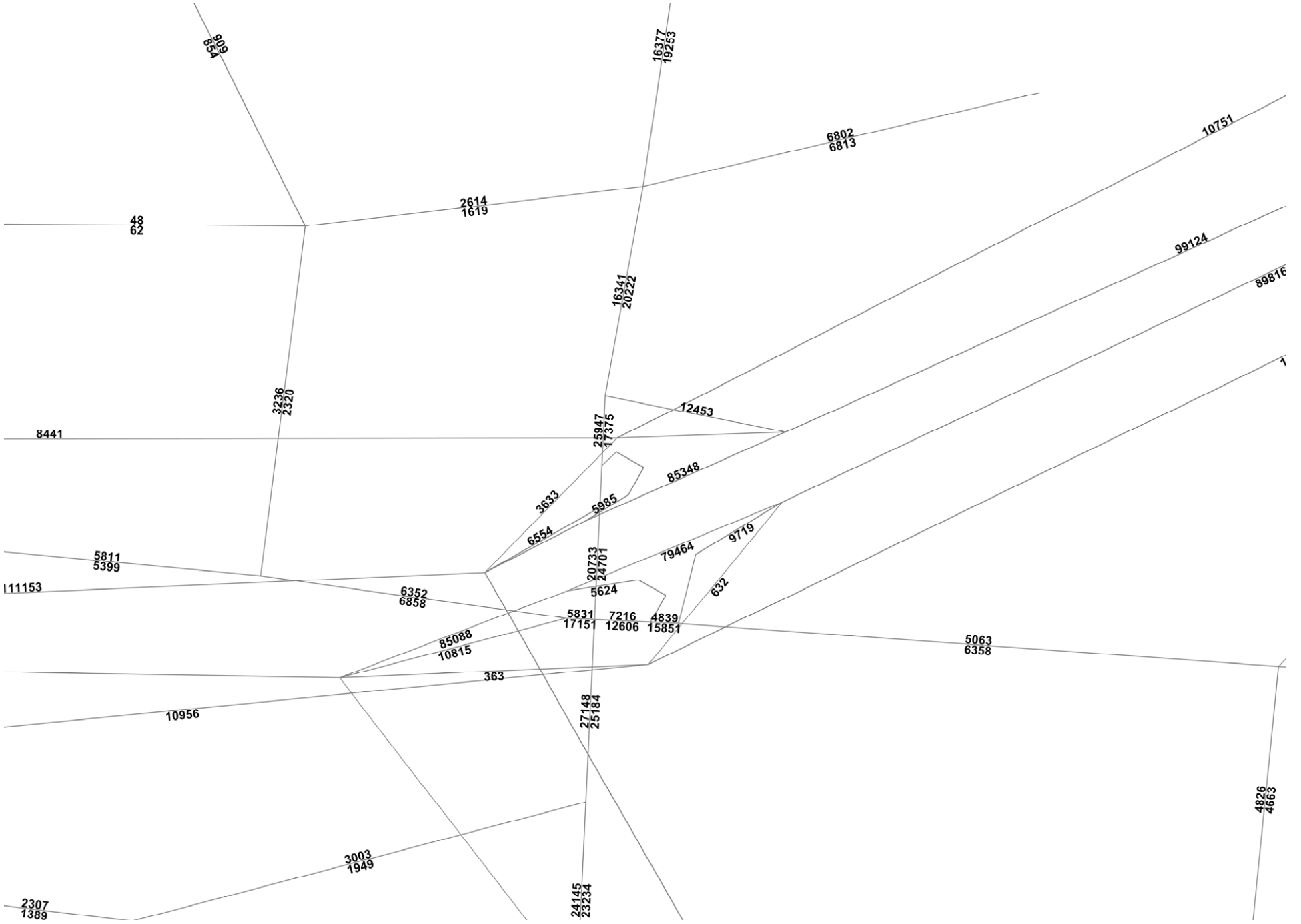
# 2010 No Project - PM (I-405)



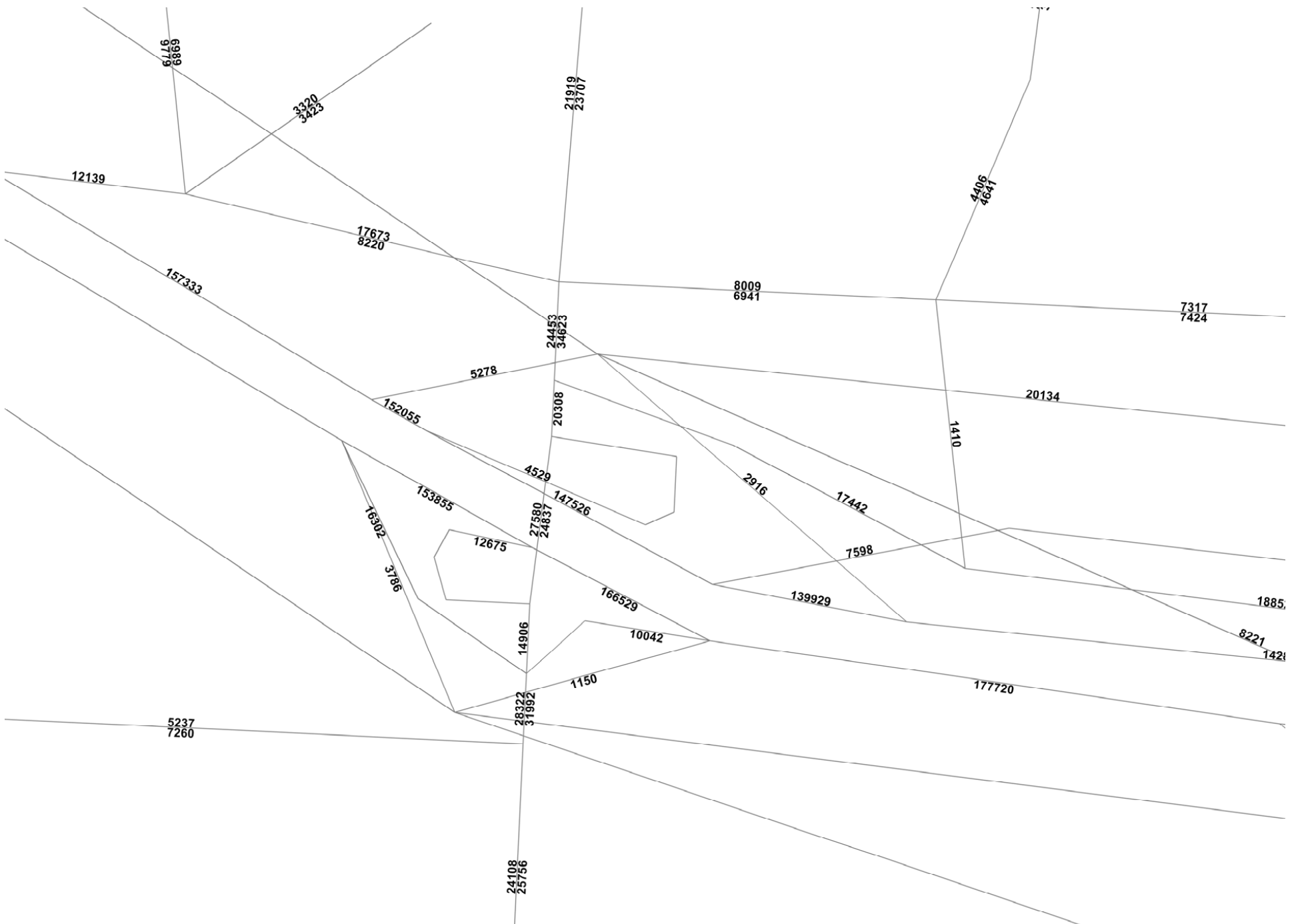
# 2035 No Project ADT



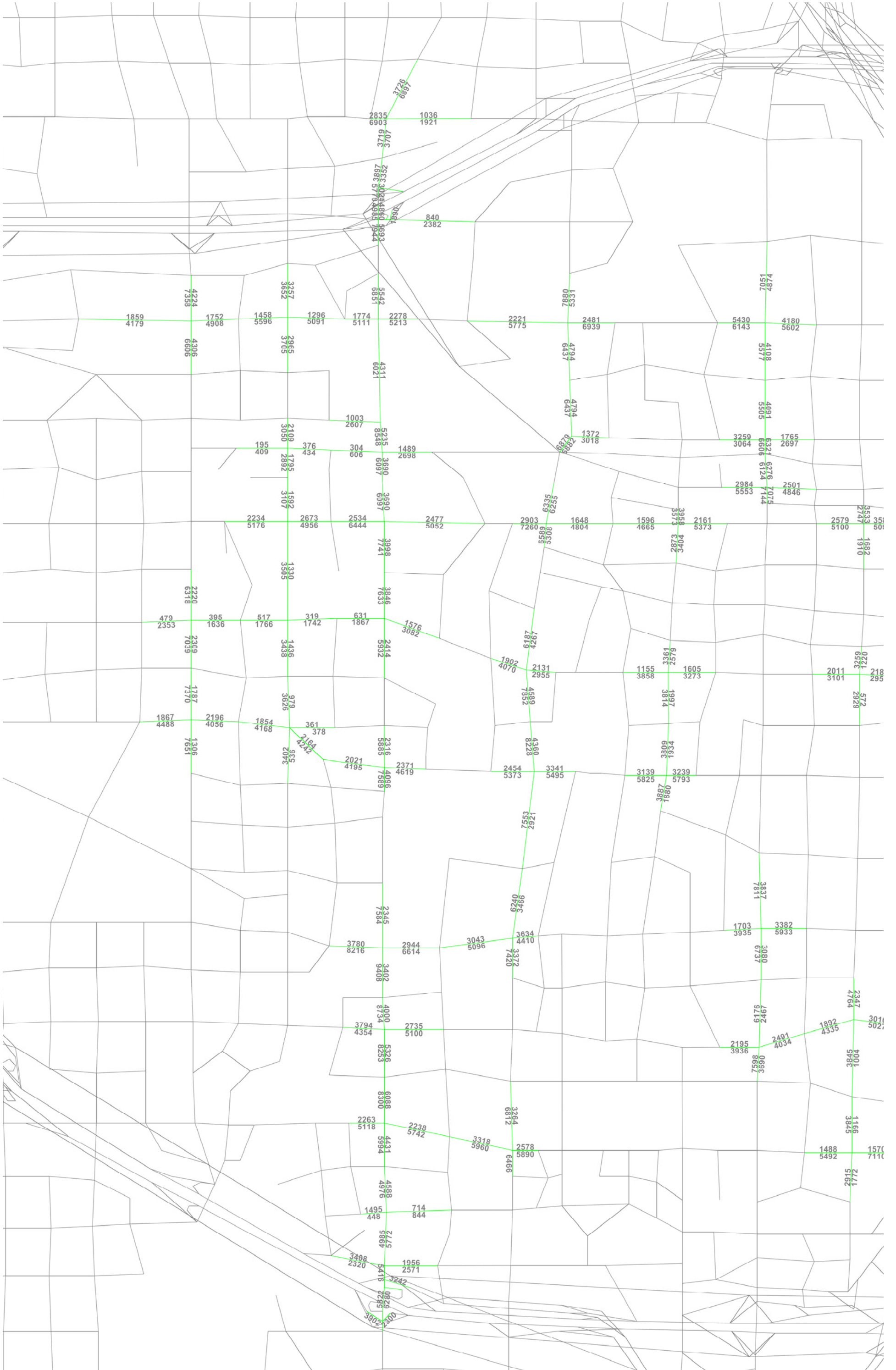
# 2035 No Project - ADT - (SR-22)



# 2035 No Project - ADT - (I-405)

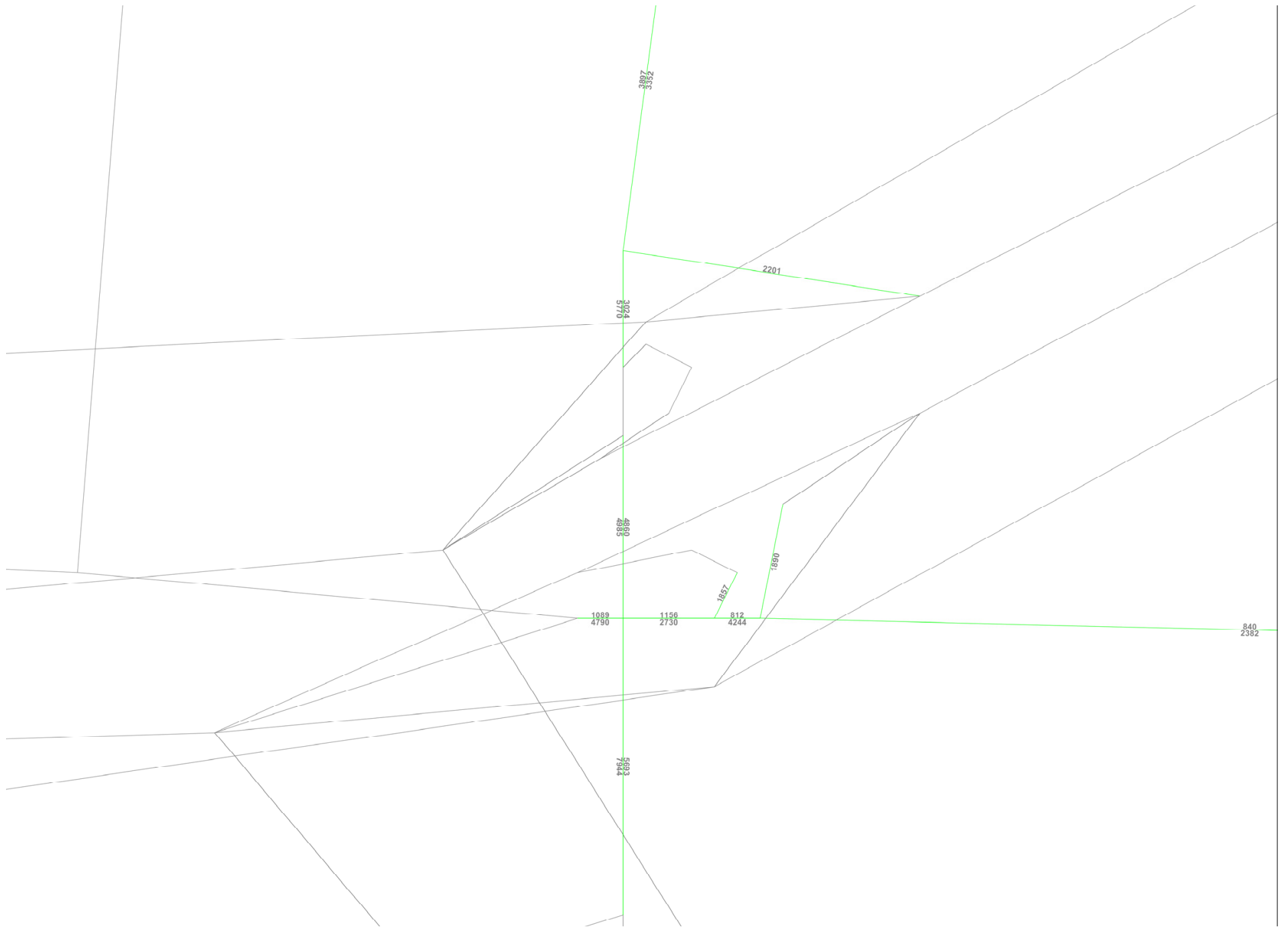


# 2035 No Project - AM

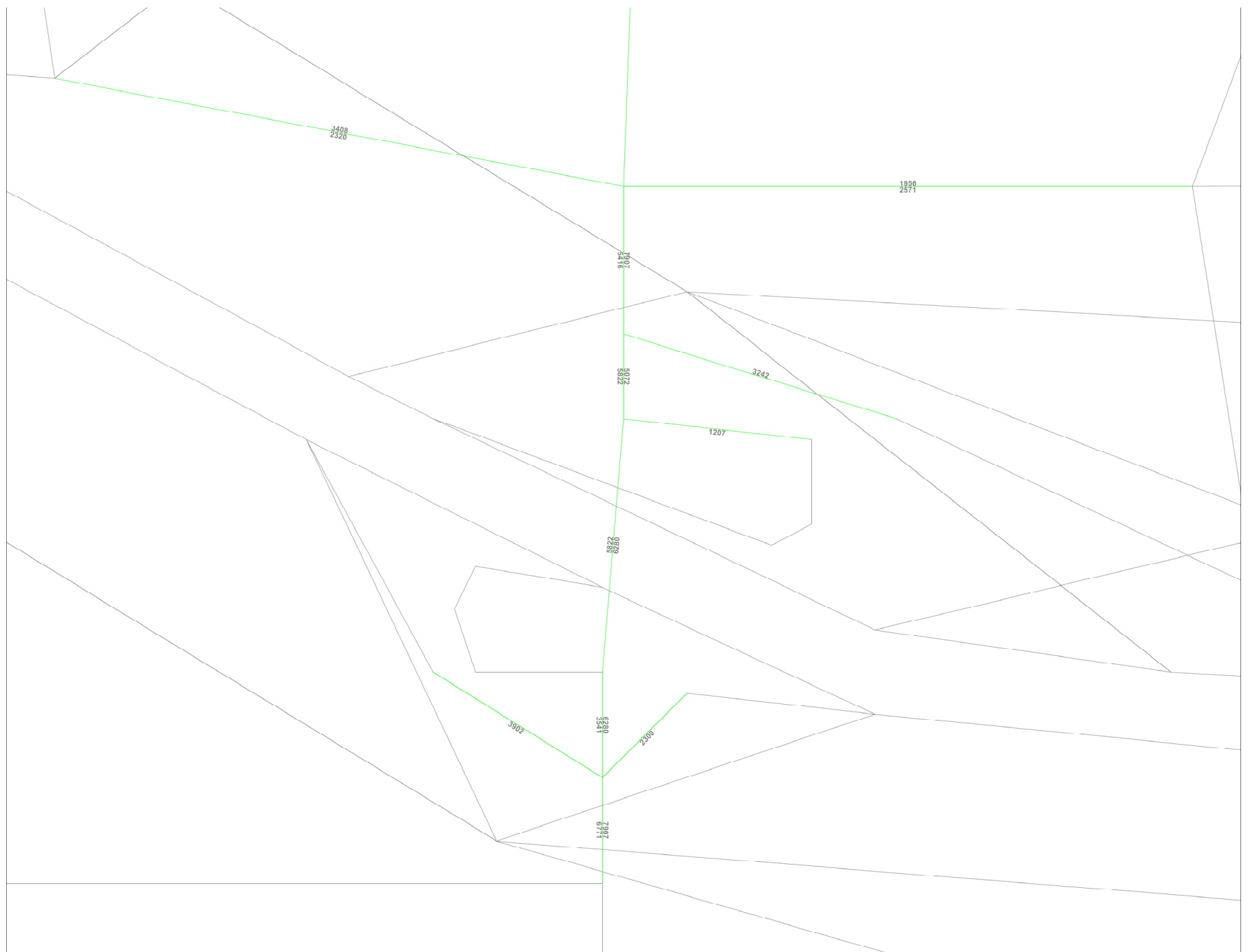




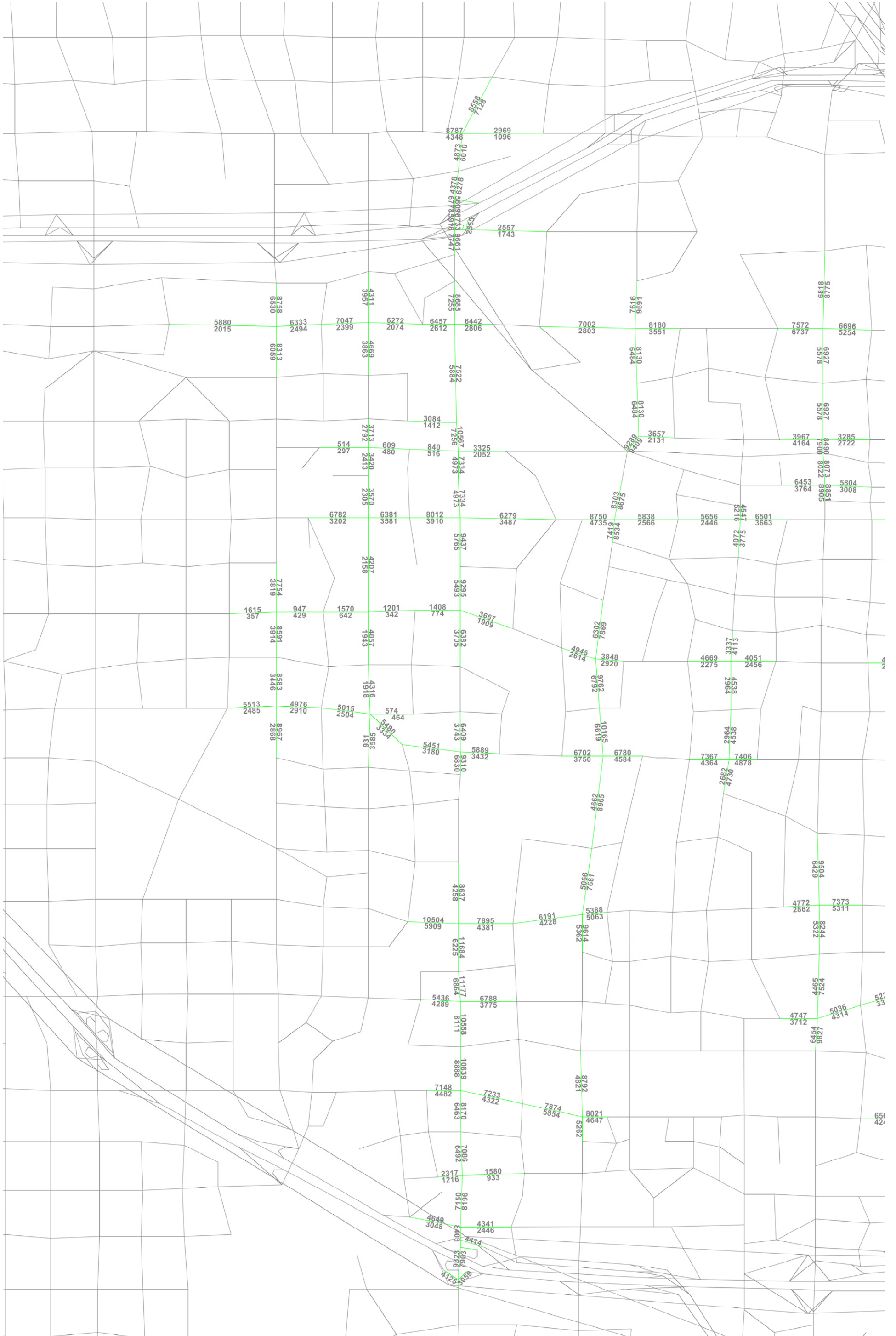
# 2035 No Project - AM - (SR-22)



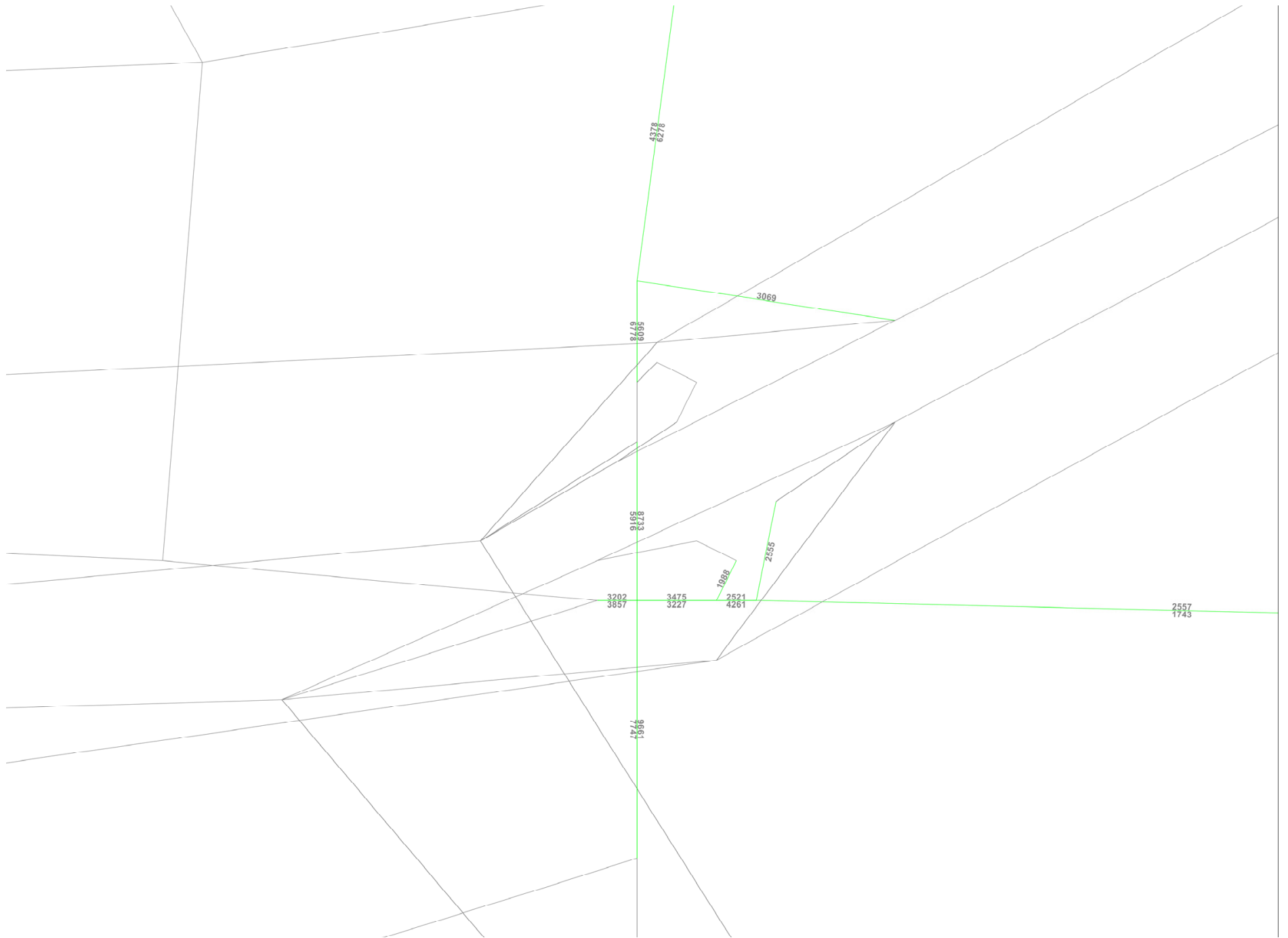
# 2035 No Project - AM - (I-405)



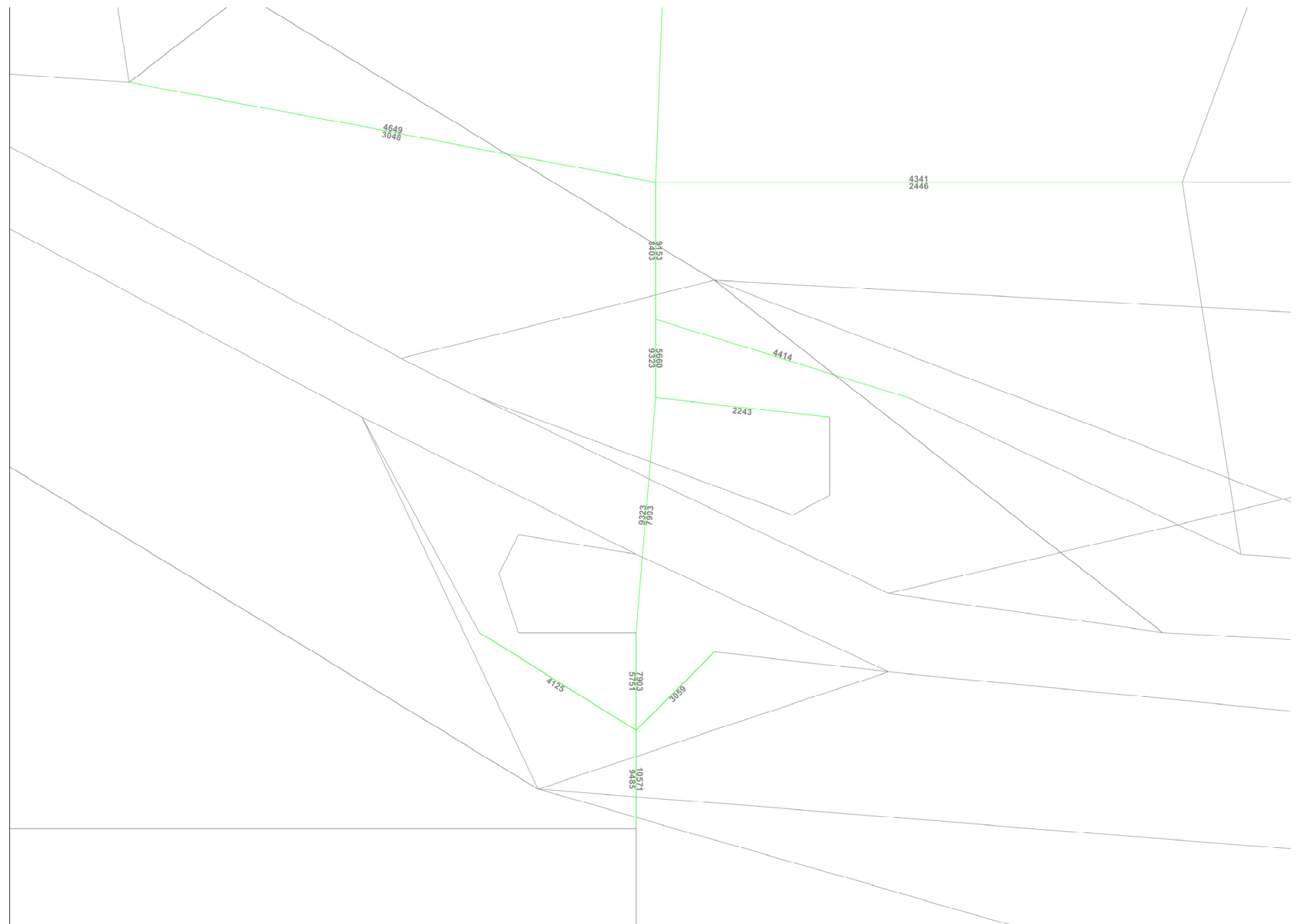
# 2035 No Project - PM



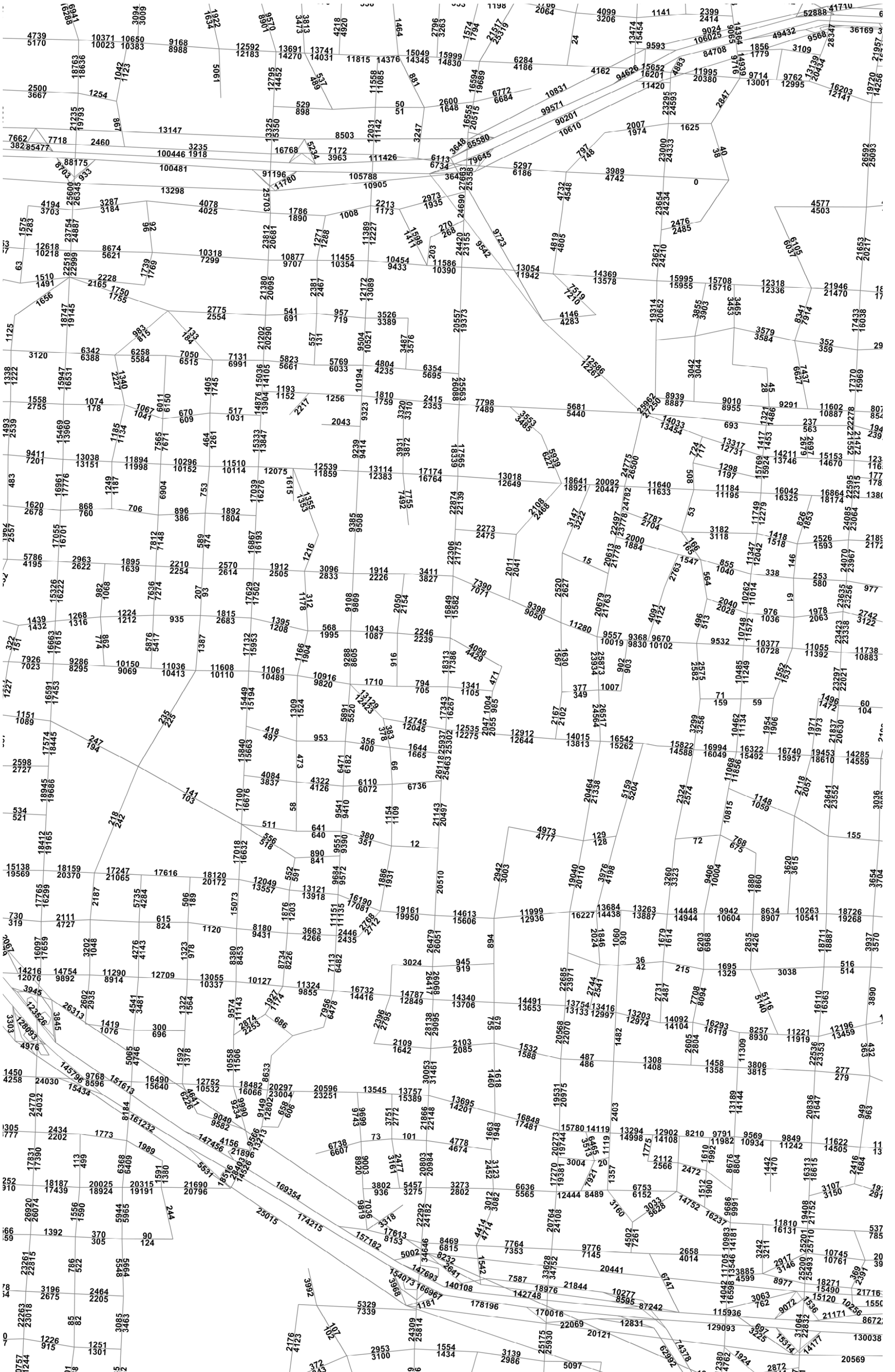
# 2035 No Project - PM - (SR-22)



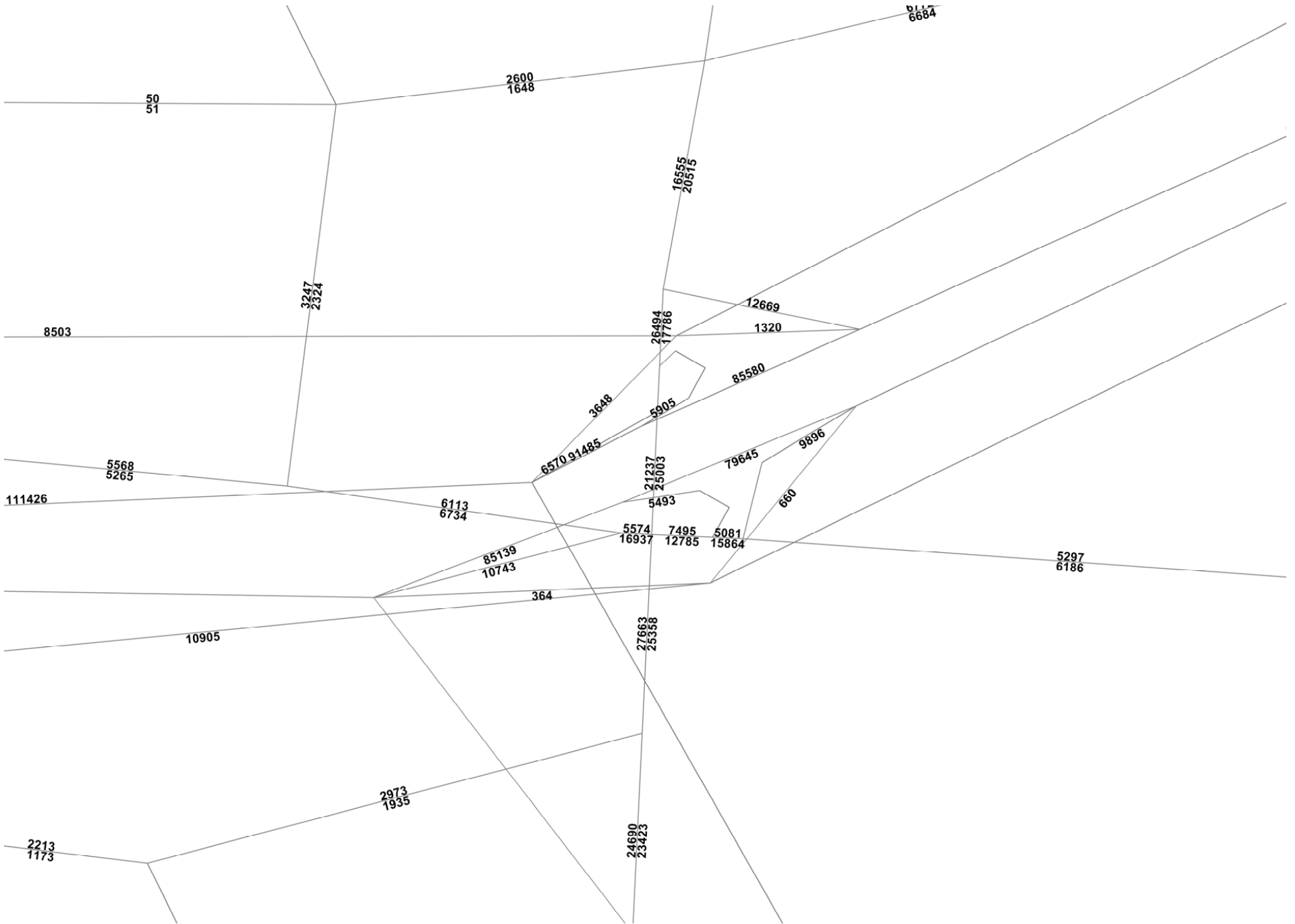
# 2035 No Project - PM - (I-405)



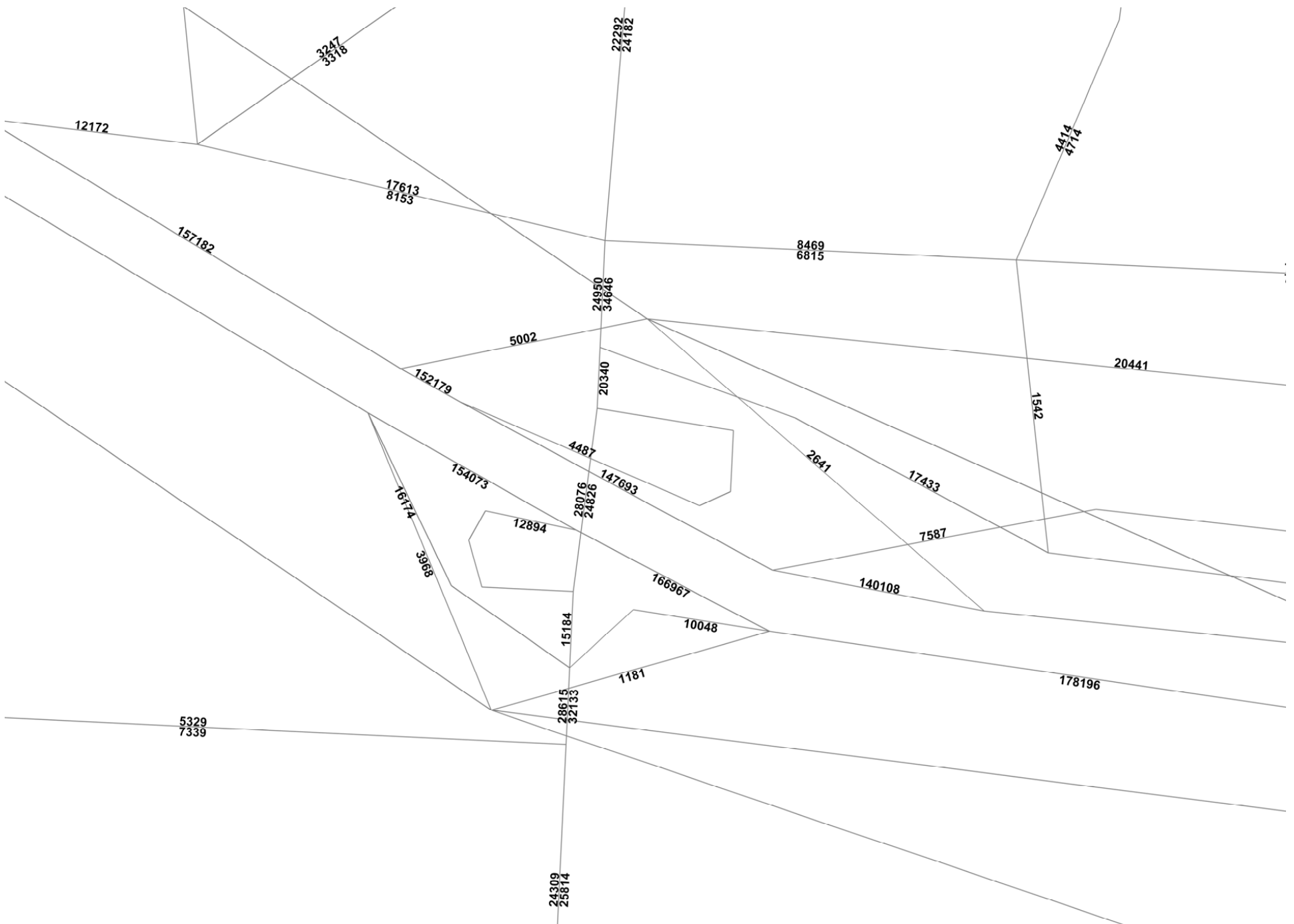
# 2035 With Project - ADT



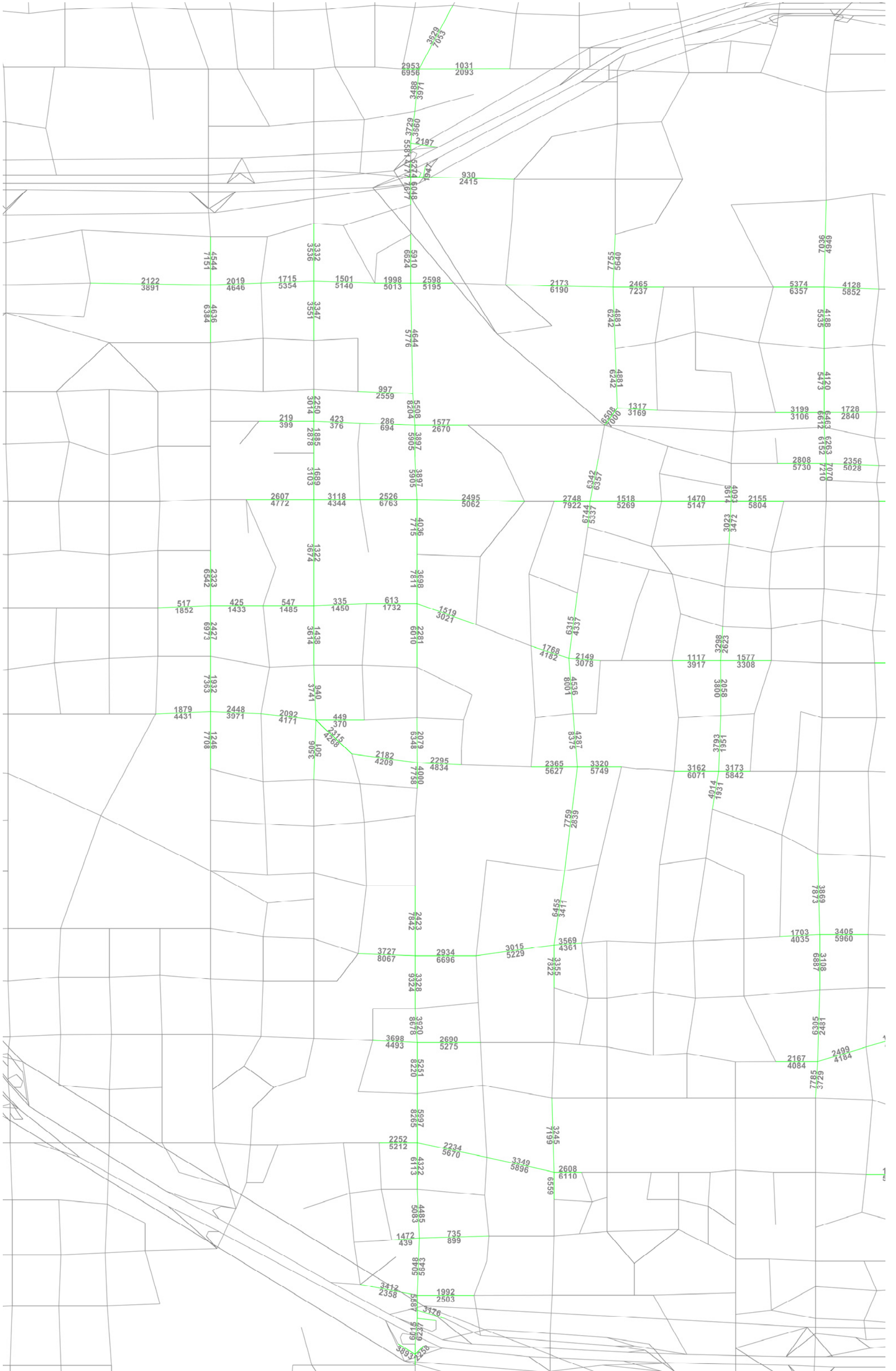
# 2035 With Project - ADT - (SR-22)



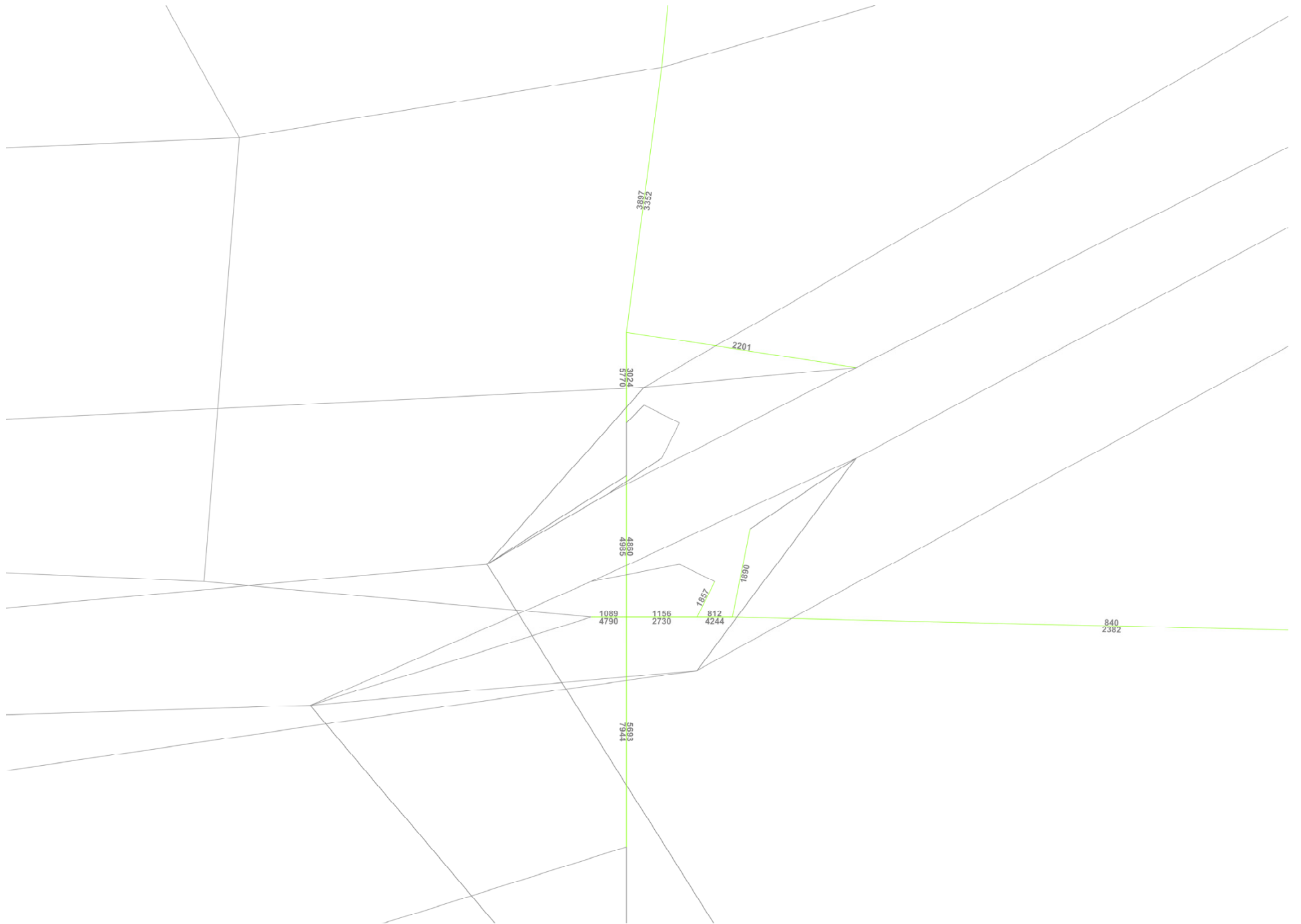
# 2035 With Project - ADT - (I-405)



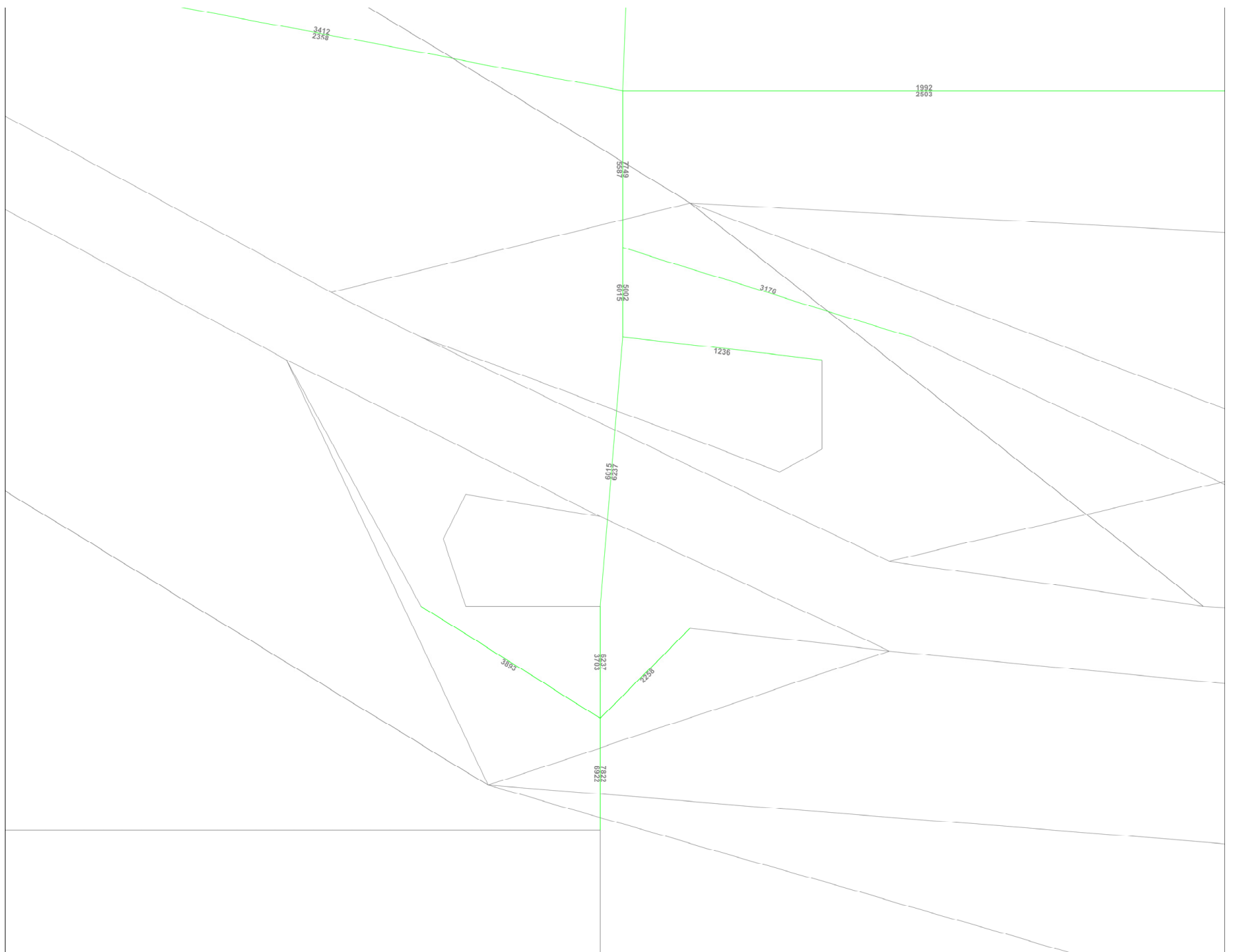
# 2035 With Project - AM



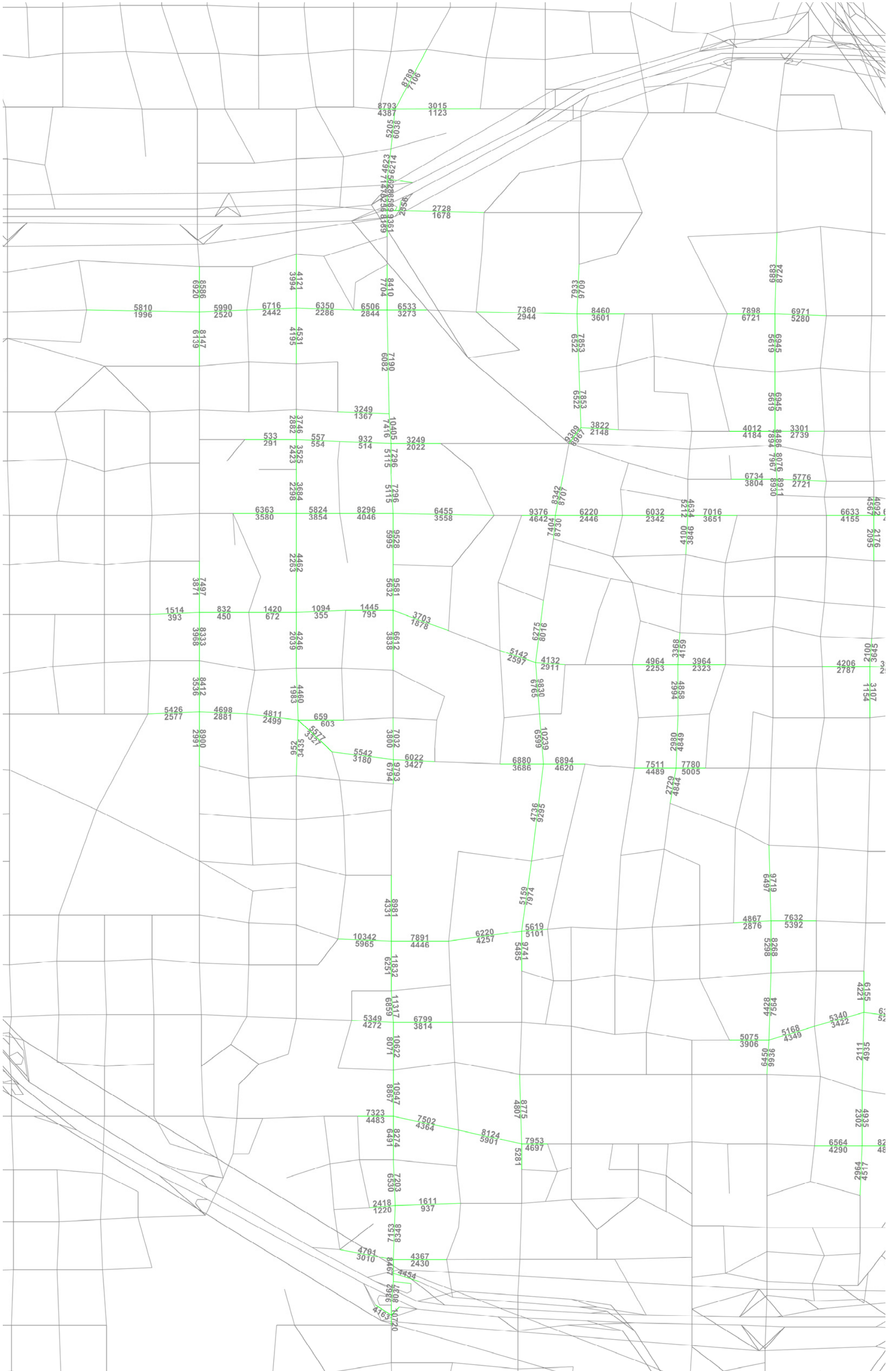
# 2035 With Project - AM - (SR-22)



# 2035 With Project - AM - (I-405)

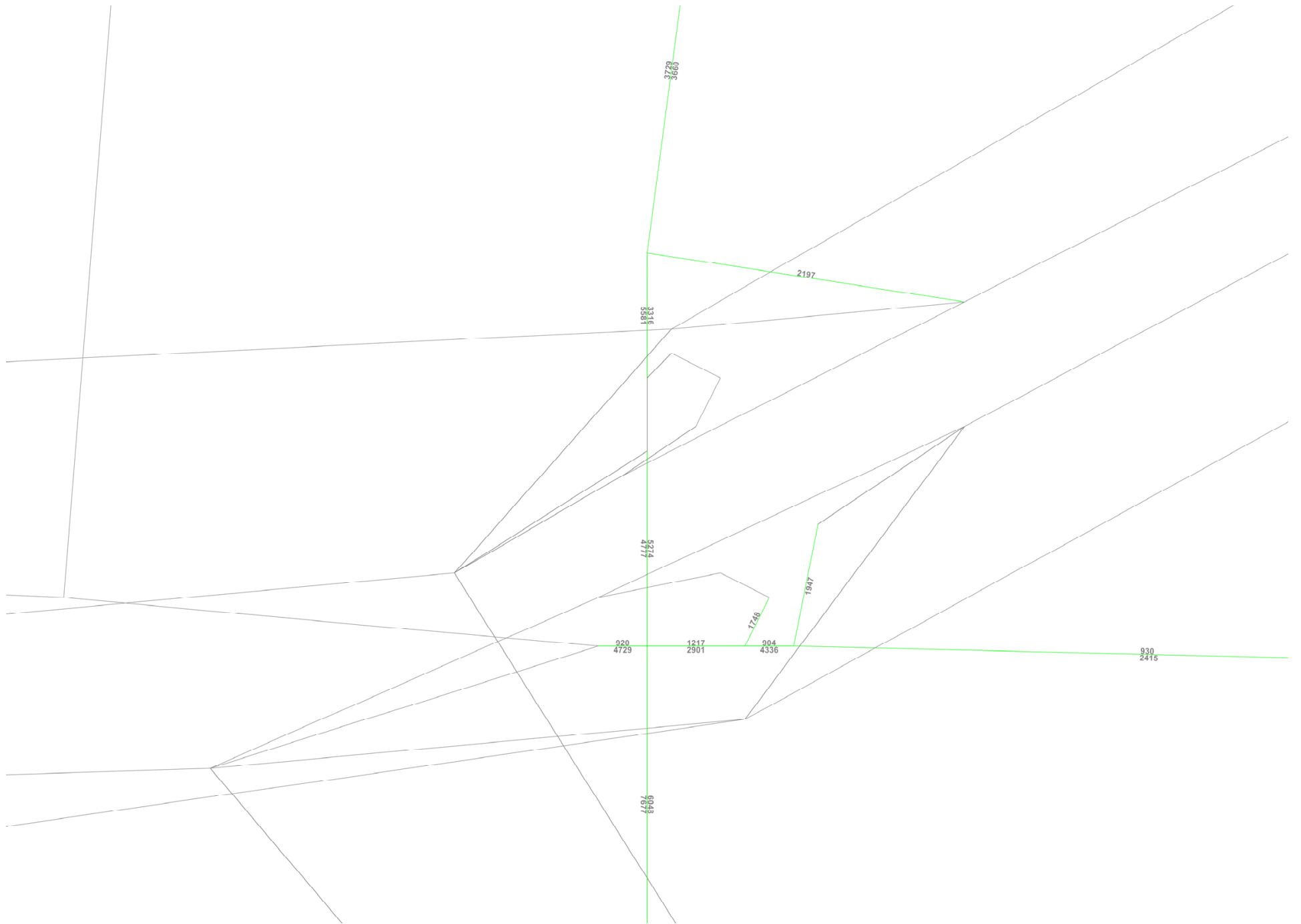


# 2035 With Project - PM

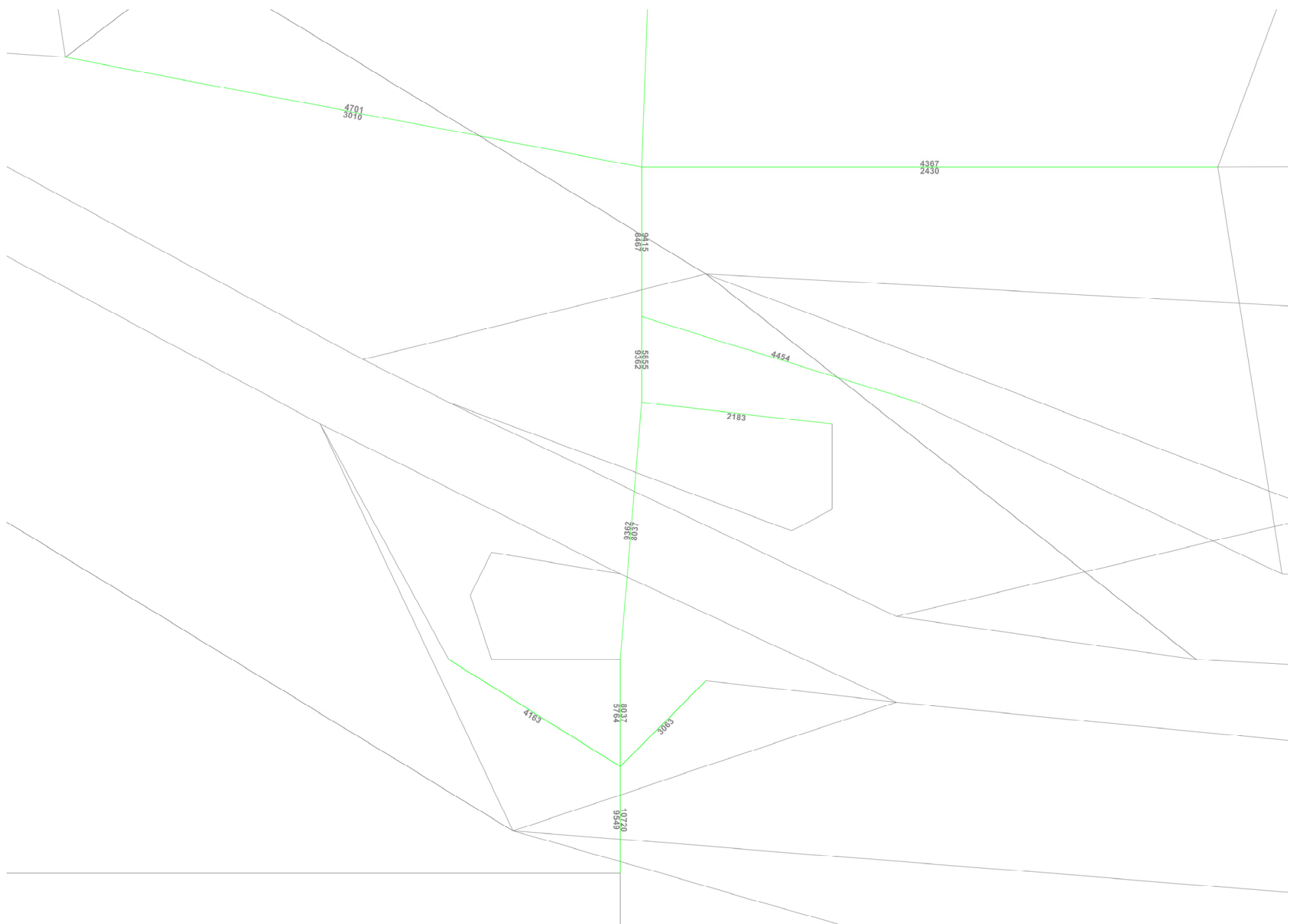




# 2035 With Project - PM - (SR-22)



# 2035 With Project - PM - (I-405)



## **C. TRAFFIX WORKSHEETS**

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## **TRAFFIX WORKSHEETS**

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YEAR 2013 – NO PROJECT – AM

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 Existing Year 2013  
 No Project  
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Impact Analysis Report  
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Euclid St and Westminster Ave	C	xxxxxx 0.798	C	xxxxxx 0.798	+ 0.000 V/C
# 2 Euclid St and McFadden Ave	C	xxxxxx 0.737	C	xxxxxx 0.737	+ 0.000 V/C
# 3 Euclid St and Edinger Ave	C	xxxxxx 0.768	C	xxxxxx 0.768	+ 0.000 V/C
# 4 Newhope St and Westminster Ave	B	xxxxxx 0.696	B	xxxxxx 0.696	+ 0.000 V/C
# 5 Newhope St and Hazard Ave	A	xxxxxx 0.481	A	xxxxxx 0.481	+ 0.000 V/C
# 6 Newhope St and 1st St	B	xxxxxx 0.698	B	xxxxxx 0.698	+ 0.000 V/C
# 7 Newhope St and McFadden Ave	B	xxxxxx 0.689	B	xxxxxx 0.689	+ 0.000 V/C
# 8 Newhope St and Edinger Ave	C	xxxxxx 0.708	C	xxxxxx 0.708	+ 0.000 V/C
# 9 Harbor Blvd and Garden Grove B	A	xxxxxx 0.530	A	xxxxxx 0.530	+ 0.000 V/C
# 10 Harbor Blvd and WB SR-22 Off-R	C	25.8 0.692	C	25.8 0.692	+ 0.000 D/V
# 11 Trask Ave and EB SR-22 On-Ramp	A	9.9 0.400	A	9.9 0.400	+ 0.000 D/V
# 12 Harbor Blvd and Trask Ave	D	xxxxxx 0.888	D	xxxxxx 0.888	+ 0.000 V/C
# 13 Harbor Blvd and Westminster Av	B	xxxxxx 0.692	B	xxxxxx 0.692	+ 0.000 V/C
# 14 Harbor Blvd and Hazard Ave	B	xxxxxx 0.635	B	xxxxxx 0.635	+ 0.000 V/C
# 15 Harbor Blvd and 5th St	B	xxxxxx 0.672	B	xxxxxx 0.672	+ 0.000 V/C
# 16 Harbor Blvd and 1st St	C	xxxxxx 0.713	C	xxxxxx 0.713	+ 0.000 V/C
# 17 Harbor Blvd and McFadden Ave	C	xxxxxx 0.729	C	xxxxxx 0.729	+ 0.000 V/C
# 18 Harbor Blvd and Edinger Ave	B	xxxxxx 0.672	B	xxxxxx 0.672	+ 0.000 V/C
# 19 Harbor Blvd and Warner Ave	B	xxxxxx 0.668	B	xxxxxx 0.668	+ 0.000 V/C
# 20 Harbor Blvd and Segerstrom Ave	C	xxxxxx 0.750	C	xxxxxx 0.750	+ 0.000 V/C
# 21 Harbor Blvd and MacArthur Blvd	C	xxxxxx 0.741	C	xxxxxx 0.741	+ 0.000 V/C
# 22 Harbor Blvd and Sunflower Ave	A	xxxxxx 0.588	A	xxxxxx 0.588	+ 0.000 V/C
# 23 Harbor Blvd and South Coast Dr	A	xxxxxx 0.459	A	xxxxxx 0.459	+ 0.000 V/C
# 24 Harbor Blvd and NB I-405 Off-R	B	17.6 0.641	B	17.6 0.641	+ 0.000 D/V

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 Existing Year 2013  
 No Project  
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Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 25 Harbor Blvd and SB I-405 Off-R	B	18.7	0.584	B 18.7	0.584	+ 0.000	D/V
# 26 Fairview S and 17th St	C	xxxxx	0.754	C xxxxx	0.754	+ 0.000	V/C
# 27 Fairview St and 1st St	C	xxxxx	0.794	C xxxxx	0.794	+ 0.000	V/C
# 28 Fairview St and McFadden Ave	C	xxxxx	0.705	C xxxxx	0.705	+ 0.000	V/C
# 29 Fairview St and Edinger Ave	C	xxxxx	0.733	C xxxxx	0.733	+ 0.000	V/C

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Euclid St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.798
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	113	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	0	3	0	1

Volume Module:

Base Vol:	147	1194	156	198	1940	90	156	647	206	169	468	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:	147	1194	156	198	1940	90	156	647	206	169	468	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:	147	1194	156	198	1940	90	156	647	206	169	468	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	1194	156	198	1940	90	156	647	206	169	468	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:	147	1194	156	198	1940	90	156	647	206	169	468	124

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	2.65	0.35	1.00	2.87	0.13	1.00	2.28	0.72	1.00	3.00	1.00
Final Sat.:	1600	4445	555	1600	4787	213	1600	3841	1159	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.09	0.27	0.28	0.12	0.41	0.42	0.10	0.17	0.18	0.11	0.09	0.08
Crit Moves:	****					****			****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Euclid St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.737
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	71	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						McFadden Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	1	0	2	0	1	1	0	2	1	0	1	0	1	1	0	1	0	1	1	0

Volume Module:

Base Vol:	102	1032	126	97	2061	172	115	329	196	73	314	122
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:	102	1032	126	97	2061	172	115	329	196	73	314	122
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:	102	1032	126	97	2061	172	115	329	196	73	314	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	1032	126	97	2061	172	115	329	196	73	314	122
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:	102	1032	126	97	2061	172	115	329	196	73	314	122

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.04	1.00
Lanes:	1.00	2.00	1.00	1.00	2.77	0.23	1.00	1.25	0.75	1.00	1.44	0.56
Final Sat.:	1600	3400	1600	1600	4630	370	1600	2105	1195	1600	2405	895

Capacity Analysis Module:

Vol/Sat:	0.06	0.30	0.08	0.06	0.45	0.47	0.07	0.16	0.16	0.05	0.13	0.14
Crit Moves:	****					****	****					****

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #3 Euclid St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.768
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						Edinger Ave													
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	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	2	0	2	1	0	2	0	2	1	0	1	0	2	0	1	1	0	2	0	1

Volume Module:

Base Vol:	154	891	92	154	1867	172	197	660	345	113	583	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:	154	891	92	154	1867	172	197	660	345	113	583	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:	154	891	92	154	1867	172	197	660	345	113	583	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	154	891	92	154	1867	172	197	660	345	113	583	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:	154	891	92	154	1867	172	197	660	345	113	583	119

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.72	0.28	2.00	2.75	0.25	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	4551	449	3200	4595	405	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.20	0.20	0.05	0.41	0.42	0.12	0.19	0.22	0.07	0.17	0.07
Crit Moves:	****					****	****				****	

\*\*\*\*\*



Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #4 Newhope St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.696
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	B

\*\*\*\*\*

Street Name:	Newhope St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit			Prot+Permit			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

Volume Module:

Base Vol:	107	665	220	223	912	111	140	802	123	139	424	129
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:	107	665	220	223	912	111	140	802	123	139	424	129
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:	107	665	220	223	912	111	140	802	123	139	424	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	665	220	223	912	111	140	802	123	139	424	129
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:	107	665	220	223	912	111	140	802	123	139	424	129

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.50	0.50	1.00	1.78	0.22	1.00	2.60	0.40	1.00	2.30	0.70
Final Sat.:	1600	2505	795	1600	2953	347	1600	4362	638	1600	3880	1120

Capacity Analysis Module:

Vol/Sat:	0.07	0.27	0.28	0.14	0.31	0.32	0.09	0.18	0.19	0.09	0.11	0.12
Crit Moves:			****	****					****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #5 Newhope St and Hazard Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.481
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

\*\*\*\*\*

Street Name:	Newhope St						Hazard Ave					
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	1	0	1	1	0	1

Volume Module:

Base Vol:	91	660	72	63	912	85	89	134	147	55	134	55
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:	91	660	72	63	912	85	89	134	147	55	134	55
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:	91	660	72	63	912	85	89	134	147	55	134	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	660	72	63	912	85	89	134	147	55	134	55
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:	91	660	72	63	912	85	89	134	147	55	134	55

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.04	1.00
Lanes:	1.00	1.80	0.20	1.00	1.83	0.17	1.00	1.00	1.00	1.00	1.42	0.58
Final Sat.:	1600	2985	315	1600	3027	273	1600	1700	1600	1600	2369	931

Capacity Analysis Module:

Vol/Sat:	0.06	0.22	0.23	0.04	0.30	0.31	0.06	0.08	0.09	0.03	0.06	0.06
Crit Moves:	****					****	****				****	

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #6 Newhope St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.698
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	B

\*\*\*\*\*

Street Name:	Newhope St						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	2	1	0

Volume Module:

Base Vol:	95	542	170	156	958	219	152	690	76	178	577	136
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	542	170	156	958	219	152	690	76	178	577	136
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	542	170	156	958	219	152	690	76	178	577	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	542	170	156	958	219	152	690	76	178	577	136
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	542	170	156	958	219	152	690	76	178	577	136

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.52	0.48	1.00	1.63	0.37	1.00	2.70	0.30	1.00	2.43	0.57
Final Sat.:	1600	2536	764	1600	2705	595	1600	4524	476	1600	4084	916

Capacity Analysis Module:

Vol/Sat:	0.06	0.21	0.22	0.10	0.35	0.37	0.10	0.15	0.16	0.11	0.14	0.15
Crit Moves:	****					****			****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #7 Newhope St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.689
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	B

\*\*\*\*\*

Street Name:	Newhope St						McFadden Ave					
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	1	0	1	1	0	1

Volume Module:

Base Vol:	133	540	166	118	989	100	96	443	138	135	419	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:	133	540	166	118	989	100	96	443	138	135	419	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:	133	540	166	118	989	100	96	443	138	135	419	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	540	166	118	989	100	96	443	138	135	419	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:	133	540	166	118	989	100	96	443	138	135	419	99

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	1.53	0.47	1.00	1.82	0.18	1.00	1.52	0.48	1.00	1.62	0.38
Final Sat.:	1600	2548	752	1600	3006	294	1600	2540	760	1600	2688	612

Capacity Analysis Module:

Vol/Sat:	0.08	0.21	0.22	0.07	0.33	0.34	0.06	0.17	0.18	0.08	0.16	0.16
Crit Moves:	****					****			****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #8 Newhope St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.708
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						Edinger Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	2	0	1

Volume Module:

Base Vol:	85	499	86	171	994	97	94	801	126	126	540	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:	85	499	86	171	994	97	94	801	126	126	540	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:	85	499	86	171	994	97	94	801	126	126	540	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	499	86	171	994	97	94	801	126	126	540	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:	85	499	86	171	994	97	94	801	126	126	540	92

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	1.71	0.29	1.00	1.82	0.18	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2830	470	1600	3015	285	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.18	0.18	0.11	0.33	0.34	0.06	0.24	0.08	0.08	0.16	0.06
Crit Moves:	****					****	****			****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #9 Harbor Blvd and Garden Grove Blvd

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.530
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						Garden Grove Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	2	0	2	1	0

Volume Module:

Base Vol:	188	905	151	79	909	126	255	643	275	137	324	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	905	151	79	909	126	255	643	275	137	324	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	188	905	151	79	909	126	255	643	275	137	324	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	188	905	151	79	909	126	255	643	275	137	324	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	188	905	151	79	909	126	255	643	275	137	324	26

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	2.10	0.90	2.00	2.78	0.22
Final Sat.:	1600	5100	1600	1600	5100	1600	3200	3562	1438	3200	4643	357

Capacity Analysis Module:

Vol/Sat:	0.12	0.18	0.09	0.05	0.18	0.08	0.08	0.18	0.19	0.04	0.07	0.07
Crit Moves:	****			****			****		****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #10 Harbor Blvd and WB SR-22 Off-Ramp  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.692  
Loss Time (sec): 0 Average Delay (sec/veh): 25.8  
Optimal Cycle: 74 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound SR-22 Off-Ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	2	1	0	0	1	0	1

Volume Module:

Base Vol:	54	1128	0	0	1376	13	52	0	139	792	57	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:	54	1128	0	0	1376	13	52	0	139	792	57	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:	54	1128	0	0	1376	13	52	0	139	792	57	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1128	0	0	1376	13	52	0	139	792	57	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:	54	1128	0	0	1376	13	52	0	139	792	57	102

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.91	0.89	1.00	0.89	0.94	0.94	0.94
Lanes:	1.00	3.00	0.00	0.00	2.97	0.03	0.27	0.00	0.73	1.79	0.11	1.10
Final Sat.:	1805	5187	0	0	5133	48	461	0	1231	3205	203	1976

Capacity Analysis Module:

Vol/Sat:	0.03	0.22	0.00	0.00	0.27	0.27	0.11	0.00	0.11	0.25	0.28	0.05
Crit Moves:	****				****				****		****	
Green/Cycle:	0.04	0.43	0.00	0.00	0.39	0.39	0.16	0.00	0.16	0.41	0.41	0.41
Volume/Cap:	0.69	0.50	0.00	0.00	0.69	0.69	0.69	0.00	0.69	0.61	0.69	0.13
Delay/Veh:	70.5	20.9	0.0	0.0	26.7	26.7	46.8	0.0	46.8	24.1	26.1	18.6
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:	70.5	20.9	0.0	0.0	26.7	26.7	46.8	0.0	46.8	24.1	26.1	18.6
LOS by Move:	E	C	A	A	C	C	D	A	D	C	C	B
HCM2kAvgQ:	3	9	0	0	14	14	7	0	7	11	14	2

Note: Queue reported is the number of cars per lane.

Existing Year 2013  
No Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #11 Trask Ave and EB SR-22 On-Ramp  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.400  
Loss Time (sec): 0 Average Delay (sec/veh): 9.9  
Optimal Cycle: 38 Level of Service: A  
\*\*\*\*\*

Street Name: Eastbound SR-22 On-Ramp Trask Ave  
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: 0 0 0 0 1 0 0 0 0 0 2 0 1 0 0 1 0 2 0 1

Volume Module:  
Base Vol: 0 0 0 0 0 0 607 760 0 0 688 128  
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: 0 0 0 0 0 0 607 760 0 0 688 128  
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: 0 0 0 0 0 0 607 760 0 0 688 128  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 0 0 0 607 760 0 0 688 128  
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: 0 0 0 0 0 0 607 760 0 0 688 128

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.92 1.00 1.00 1.00 0.95 0.85  
Lanes: 0.00 0.00 1.00 0.00 0.00 0.00 2.00 1.00 0.00 1.00 2.00 1.00  
Final Sat.: 0 0 1900 0 0 0 3502 1900 0 1900 3610 1615

Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.17 0.40 0.00 0.00 0.19 0.08  
Crit Moves: \*\*\*\* \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.00 0.00 0.00 0.48 1.00 0.00 0.00 0.52 0.52  
Volume/Cap: 0.00 0.00 0.00 0.00 0.00 0.00 0.36 0.40 0.00 0.00 0.36 0.15  
Delay/Veh: 0.0 0.0 0.0 0.0 0.0 0.0 16.7 0.1 0.0 0.0 14.1 12.4  
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: 0.0 0.0 0.0 0.0 0.0 0.0 16.7 0.1 0.0 0.0 14.1 12.4  
LOS by Move: A A A A A A B A A A B B  
HCM2kAvgQ: 0 0 0 0 0 0 6 1 0 0 6 2

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #12 Harbor Blvd and Trask Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.888
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Trask Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	2	0	1

Volume Module:

Base Vol:	55	779	364	347	1655	108	84	621	444	109	226	626
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	779	364	347	1655	108	84	621	444	109	226	626
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	779	364	347	1655	108	84	621	444	109	226	626
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	779	364	347	1655	108	84	621	444	109	226	626
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	779	364	347	1655	108	84	621	444	109	226	626

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.15	0.23	0.22	0.32	0.07	0.05	0.18	0.28	0.07	0.07	0.39
Crit Moves:			****	****			****					****

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #13 Harbor Blvd and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.692
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	3	0	1	1	0	2	1	0

Volume Module:

Base Vol:	159	1117	225	157	1514	64	127	690	21	236	480	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:	159	1117	225	157	1514	64	127	690	21	236	480	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:	159	1117	225	157	1514	64	127	690	21	236	480	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	1117	225	157	1514	64	127	690	21	236	480	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:	159	1117	225	157	1514	64	127	690	21	236	480	160

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	2.50	0.50	1.00	3.00	1.00	1.00	2.91	0.09	1.00	3.00	1.00
Final Sat.:	1600	4195	805	1600	5100	1600	1600	4858	142	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.27	0.28	0.10	0.30	0.04	0.08	0.14	0.15	0.15	0.09	0.10
Crit Moves:	****			****			****	****	****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #14 Harbor Blvd and Hazard Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.635
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Hazard Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	1	0	1	0

Volume Module:

Base Vol:	84	1171	6	22	1977	88	121	35	188	55	54	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	1171	6	22	1977	88	121	35	188	55	54	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	1171	6	22	1977	88	121	35	188	55	54	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	1171	6	22	1977	88	121	35	188	55	54	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	1171	6	22	1977	88	121	35	188	55	54	43

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	1.00	2.98	0.02	1.00	2.87	0.13	1.00	1.00	1.00	1.00	0.56	0.44
Final Sat.:	1600	4976	24	1600	4795	205	1600	1700	1600	1600	891	709

Capacity Analysis Module:

Vol/Sat:	0.05	0.24	0.25	0.01	0.41	0.43	0.08	0.02	0.12	0.03	0.06	0.06
Crit Moves:	****					****			****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #15 Harbor Blvd and 5th St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.672
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						5th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	0	1	0	1

Volume Module:

Base Vol:	39	1065	66	112	2018	53	82	152	82	112	113	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:	39	1065	66	112	2018	53	82	152	82	112	113	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:	39	1065	66	112	2018	53	82	152	82	112	113	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	1065	66	112	2018	53	82	152	82	112	113	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:	39	1065	66	112	2018	53	82	152	82	112	113	114

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	1.00	2.82	0.18	1.00	2.92	0.08	1.00	0.65	0.35	1.00	1.00	1.00
Final Sat.:	1600	4720	280	1600	4877	123	1600	1039	561	1600	1700	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.23	0.24	0.07	0.41	0.43	0.05	0.15	0.15	0.07	0.07	0.07
Crit Moves:	****					****	****			****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #16 Harbor Blvd and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.713
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						1st Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			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	3	0	1	2	0	2	1	0	2	0	2	1	0

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Volume Module:

Base Vol:	122	944	137	205	2025	100	147	753	131	205	564	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:	122	944	137	205	2025	100	147	753	131	205	564	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:	122	944	137	205	2025	100	147	753	131	205	564	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	122	944	137	205	2025	100	147	753	131	205	564	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:	122	944	137	205	2025	100	147	753	131	205	564	89

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.62	0.38	1.00	3.00	1.00	2.00	2.56	0.44	2.00	2.59	0.41
Final Sat.:	1600	4392	608	1600	5100	1600	3200	4289	711	3200	4346	654

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Capacity Analysis Module:

Vol/Sat:	0.08	0.21	0.23	0.13	0.40	0.06	0.05	0.18	0.18	0.06	0.13	0.14
Crit Moves:	****			****			****			****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #17 Harbor Blvd and McFadden Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.729
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	84	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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:	2	0	3	0	1	2	0	2	1	0	1	0	1	1	0

Volume Module:

Base Vol:	117	893	69	156	1940	59	160	414	140	175	352	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:	117	893	69	156	1940	59	160	414	140	175	352	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:	117	893	69	156	1940	59	160	414	140	175	352	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	893	69	156	1940	59	160	414	140	175	352	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:	117	893	69	156	1940	59	160	414	140	175	352	138

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	2.00	3.00	1.00	2.00	2.91	0.09	1.00	1.49	0.51	1.00	1.44	0.56
Final Sat.:	3200	5100	1600	3200	4858	142	1600	2491	809	1600	2399	901

Capacity Analysis Module:

Vol/Sat:	0.04	0.18	0.04	0.05	0.40	0.42	0.10	0.17	0.17	0.11	0.15	0.15
Crit Moves:	****					****	****	****	****			

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #18 Harbor Blvd and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.672
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Edinger Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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:	2	0	3	0	1	2	0	3	0	1	2	0	2	1	0

Volume Module:

Base Vol:	100	788	90	209	2032	55	88	644	213	203	392	150
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	788	90	209	2032	55	88	644	213	203	392	150
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	788	90	209	2032	55	88	644	213	203	392	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	788	90	209	2032	55	88	644	213	203	392	150
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	788	90	209	2032	55	88	644	213	203	392	150

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.25	0.75	2.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	3200	3807	1193	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.15	0.06	0.07	0.40	0.03	0.03	0.17	0.18	0.06	0.08	0.09
Crit Moves:	****			****			****	****				

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #19 Harbor Blvd and Warner Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.668
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Warner Ave					
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:	2	0	2	1	0	0	2	0	3	0	1	1

Volume Module:

Base Vol:	81	637	131	366	2015	120	109	1026	308	150	465	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:	81	637	131	366	2015	120	109	1026	308	150	465	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:	81	637	131	366	2015	120	109	1026	308	150	465	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	637	131	366	2015	120	109	1026	308	150	465	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:	81	637	131	366	2015	120	109	1026	308	150	465	95

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.49	0.51	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	4181	819	3200	5100	1600	3200	5100	1600	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.15	0.16	0.11	0.40	0.08	0.03	0.20	0.19	0.05	0.09	0.06
Crit Moves:	****			****			****			****		

\*\*\*\*\*



Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #20 Harbor Blvd and Segerstrom Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.750
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	C

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Street Name:	Harbor Blvd						Segerstrom Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	2	1	0	1	0	2	1	0	1	0	1	1	0	1	0	2	0	1

Volume Module:

Base Vol:	91	707	66	158	2087	119	82	439	243	78	311	101
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:	91	707	66	158	2087	119	82	439	243	78	311	101
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:	91	707	66	158	2087	119	82	439	243	78	311	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	707	66	158	2087	119	82	439	243	78	311	101
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:	91	707	66	158	2087	119	82	439	243	78	311	101

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	2.74	0.26	1.00	2.84	0.16	1.00	1.29	0.71	1.00	2.00	1.00
Final Sat.:	3200	4590	410	1600	4741	259	1600	2160	1140	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.15	0.16	0.10	0.44	0.46	0.05	0.20	0.21	0.05	0.09	0.06
Crit Moves:	****					****			****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #21 Harbor Blvd and MacArthur Blvd

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	C

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Street Name:	Harbor Blvd						MacArthur Ave					
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:	2	0	3	0	1		2	0	3	0	1	

Volume Module:

Base Vol:	117	882	92	376	2114	155	115	1018	331	133	366	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:	117	882	92	376	2114	155	115	1018	331	133	366	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:	117	882	92	376	2114	155	115	1018	331	133	366	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	882	92	376	2114	155	115	1018	331	133	366	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:	117	882	92	376	2114	155	115	1018	331	133	366	113

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	1600	5100	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.17	0.06	0.12	0.41	0.10	0.07	0.20	0.21	0.08	0.07	0.07
Crit Moves:	****				****				****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #22 Harbor Blvd and Sunflower Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.588
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	55	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						Sunflower Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Split Phase			Split Phase					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	2	0	2	1	0	2	0	3	0	1	1	0	1	1	0

Volume Module:

Base Vol:	288	1259	146	259	2041	59	9	67	31	105	129	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:	288	1259	146	259	2041	59	9	67	31	105	129	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:	288	1259	146	259	2041	59	9	67	31	105	129	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	288	1259	146	259	2041	59	9	67	31	105	129	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:	288	1259	146	259	2041	59	9	67	31	105	129	89

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	2.00	2.69	0.31	2.00	3.00	1.00	1.00	1.37	0.63	1.00	1.17	0.83
Final Sat.:	3200	4501	499	3200	5100	1600	1600	2288	1012	1600	1969	1330

Capacity Analysis Module:

Vol/Sat:	0.09	0.28	0.29	0.08	0.40	0.04	0.01	0.03	0.03	0.07	0.07	0.07
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #23 Harbor Blvd and South Coast Drive

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.459
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						South Coast Drive									
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			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:	2	0	3	1	1	2	0	4	0	1	1	2	0	2	0	1

Volume Module:

Base Vol:	243	1767	224	75	1965	62	9	29	184	87	134	37
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:	243	1767	224	75	1965	62	9	29	184	87	134	37
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:	243	1767	224	75	1965	62	9	29	184	87	134	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	243	1767	224	75	1965	62	9	29	184	87	134	37
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:	243	1767	224	75	1965	62	9	29	184	87	134	37

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	0.27	1.73	2.00	2.00	1.00
Final Sat.:	3200	6800	1600	3200	6800	1600	1600	436	2764	3200	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.08	0.26	0.14	0.02	0.29	0.04	0.01	0.07	0.07	0.03	0.04	0.02
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #24 Harbor Blvd and NB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.641  
Loss Time (sec): 0 Average Delay (sec/veh): 17.6  
Optimal Cycle: 64 Level of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound I-405 Off Ramp					
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:	0	0	4	0	0	4	0	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	1368	0	0	2234	0	0	0	0	482	0	884
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	1368	0	0	2234	0	0	0	0	482	0	884
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1368	0	0	2234	0	0	0	0	482	0	884
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1368	0	0	2234	0	0	0	0	482	0	884
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1368	0	0	2234	0	0	0	0	482	0	884

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.89	1.00	0.89
Lanes:	0.00	4.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	1.35	0.00	1.65
Final Sat.:	0	6916	0	0	6916	0	0	0	0	2282	0	2778

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.20	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.21	0.00	0.32
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.50	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.50	0.00	0.50
Volume/Cap:	0.00	0.39	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.43	0.00	0.64
Delay/Veh:	0.0	15.4	0.0	0.0	18.6	0.0	0.0	0.0	0.0	16.2	0.0	19.3
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:	0.0	15.4	0.0	0.0	18.6	0.0	0.0	0.0	0.0	16.2	0.0	19.3
LOS by Move:	A	B	A	A	B	A	A	A	A	B	A	B
HCM2kAvgQ:	0	7	0	0	14	0	0	0	0	7	0	13

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
No Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #25 Harbor Blvd and SB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.584  
Loss Time (sec): 0 Average Delay (sec/veh): 18.7  
Optimal Cycle: 55 Level of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Eastbound I-405 Off-Ramp					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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:	0	0	3	0	0	4	0	0	0	1	0	0

Volume Module:												
Base Vol:	0	1394	0	0	1687	0	364	0	509	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	1394	0	0	1687	0	364	0	509	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1394	0	0	1687	0	364	0	509	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1394	0	0	1687	0	364	0	509	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1394	0	0	1687	0	364	0	509	0	0	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	4.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	6916	0	3502	0	1615	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.00	0.00	0.24	0.00	0.10	0.00	0.32	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.46	0.00	0.00	0.46	0.00	0.54	0.00	0.54	0.00	0.00	0.00
Volume/Cap:	0.00	0.58	0.00	0.00	0.53	0.00	0.19	0.00	0.58	0.00	0.00	0.00
Delay/Veh:	0.0	20.3	0.0	0.0	19.4	0.0	11.9	0.0	16.5	0.0	0.0	0.0
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:	0.0	20.3	0.0	0.0	19.4	0.0	11.9	0.0	16.5	0.0	0.0	0.0
LOS by Move:	A	C	A	A	B	A	B	A	B	A	A	A
HCM2kAvgQ:	0	12	0	0	10	0	3	0	11	0	0	0

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #26 Fairview S and 17th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.754
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street						17th Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	2	0	1	2	0	2	0	1	1	0	3	0	1	1	0	2	1	0

Volume Module:

Base Vol:	156	911	241	453	1042	120	204	1044	191	223	438	229
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	156	911	241	453	1042	120	204	1044	191	223	438	229
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	156	911	241	453	1042	120	204	1044	191	223	438	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	911	241	453	1042	120	204	1044	191	223	438	229
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	156	911	241	453	1042	120	204	1044	191	223	438	229

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	3400	1600	3200	3400	1600	1600	5100	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.27	0.15	0.14	0.31	0.08	0.13	0.20	0.12	0.14	0.13	0.14
Crit Moves:	****			****			****			****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #27 Fairview St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.794
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	110	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street						1st Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0

Volume Module:

Base Vol:	168	1390	226	177	1437	77	191	1048	179	188	517	166
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:	168	1390	226	177	1437	77	191	1048	179	188	517	166
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:	168	1390	226	177	1437	77	191	1048	179	188	517	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	1390	226	177	1437	77	191	1048	179	188	517	166
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:	168	1390	226	177	1437	77	191	1048	179	188	517	166

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	2.85	0.15	1.00	2.56	0.44	1.00	2.27	0.73
Final Sat.:	1600	5100	1600	1600	4756	244	1600	4300	700	1600	3833	1167

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.14	0.11	0.30	0.32	0.12	0.24	0.26	0.12	0.13	0.14
Crit Moves:	****					****			****	****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Fairview St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.705
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	1	1	0

Volume Module:

Base Vol:	105	1153	117	128	1629	105	212	509	132	191	459	55
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:	105	1153	117	128	1629	105	212	509	132	191	459	55
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:	105	1153	117	128	1629	105	212	509	132	191	459	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	1153	117	128	1629	105	212	509	132	191	459	55
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:	105	1153	117	128	1629	105	212	509	132	191	459	55

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.03	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	1.59	0.41	1.00	1.79	0.21
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	2641	659	1600	2958	342

Capacity Analysis Module:

Vol/Sat:	0.07	0.23	0.07	0.08	0.32	0.07	0.13	0.19	0.20	0.12	0.16	0.16
Crit Moves:	****			****			****	****				

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #29 Fairview St and Edinger Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.733  
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 85 Level Of Service: C  
\*\*\*\*\*

Street Name:	Fairview St						Edinger Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:												
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:	2	0	2	1	0	0	2	0	2	1	0	0

Volume Module:

Base Vol:	207	1054	108	200	1630	107	275	665	198	404	607	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:	207	1054	108	200	1630	107	275	665	198	404	607	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:	207	1054	108	200	1630	107	275	665	198	404	607	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	1054	108	200	1630	107	275	665	198	404	607	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:	207	1054	108	200	1630	107	275	665	198	404	607	162

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	2.00	2.72	0.28	2.00	2.82	0.18	2.00	2.31	0.69	2.00	2.37	0.63
Final Sat.:	3200	4554	446	3200	4704	296	3200	3899	1101	3200	3989	1011

Capacity Analysis Module:

Vol/Sat:	0.06	0.23	0.24	0.06	0.35	0.36	0.09	0.17	0.18	0.13	0.15	0.16
Crit Moves:	****					****			****	****		

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## **TRAFFIX WORKSHEETS**

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YEAR 2013 – NO PROJECT – PM

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 Existing Year 2013  
 No Project  
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Impact Analysis Report  
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Euclid St and Westminster Ave	D	xxxxxx 0.810	D	xxxxxx 0.810	+ 0.000 V/C
# 2 Euclid St and McFadden Ave	C	xxxxxx 0.796	C	xxxxxx 0.796	+ 0.000 V/C
# 3 Euclid St and Edinger Ave	C	xxxxxx 0.765	C	xxxxxx 0.765	+ 0.000 V/C
# 4 Newhope St and Westminster Ave	D	xxxxxx 0.851	D	xxxxxx 0.851	+ 0.000 V/C
# 5 Newhope St and Hazard Ave	A	xxxxxx 0.586	A	xxxxxx 0.586	+ 0.000 V/C
# 6 Newhope St and 1st St	D	xxxxxx 0.831	D	xxxxxx 0.831	+ 0.000 V/C
# 7 Newhope St and McFadden Ave	C	xxxxxx 0.774	C	xxxxxx 0.774	+ 0.000 V/C
# 8 Newhope St and Edinger Ave	C	xxxxxx 0.796	C	xxxxxx 0.796	+ 0.000 V/C
# 9 Harbor Blvd and Garden Grove B	B	xxxxxx 0.670	B	xxxxxx 0.670	+ 0.000 V/C
# 10 Harbor Blvd and WB SR-22 Off-R	C	24.6 0.708	C	24.6 0.708	+ 0.000 D/V
# 11 Trask Ave and EB SR-22 On-Ramp	B	10.7 0.380	B	10.7 0.380	+ 0.000 D/V
# 12 Harbor Blvd and Trask Ave	F	xxxxxx 1.058	F	xxxxxx 1.058	+ 0.000 V/C
# 13 Harbor Blvd and Westminster Av	C	xxxxxx 0.744	C	xxxxxx 0.744	+ 0.000 V/C
# 14 Harbor Blvd and Hazard Ave	A	xxxxxx 0.539	A	xxxxxx 0.539	+ 0.000 V/C
# 15 Harbor Blvd and 5th St	B	xxxxxx 0.648	B	xxxxxx 0.648	+ 0.000 V/C
# 16 Harbor Blvd and 1st St	D	xxxxxx 0.804	D	xxxxxx 0.804	+ 0.000 V/C
# 17 Harbor Blvd and McFadden Ave	C	xxxxxx 0.717	C	xxxxxx 0.717	+ 0.000 V/C
# 18 Harbor Blvd and Edinger Ave	B	xxxxxx 0.683	B	xxxxxx 0.683	+ 0.000 V/C
# 19 Harbor Blvd and Warner Ave	C	xxxxxx 0.729	C	xxxxxx 0.729	+ 0.000 V/C
# 20 Harbor Blvd and Segerstrom Ave	D	xxxxxx 0.804	D	xxxxxx 0.804	+ 0.000 V/C
# 21 Harbor Blvd and MacArthur Blvd	C	xxxxxx 0.767	C	xxxxxx 0.767	+ 0.000 V/C
# 22 Harbor Blvd and Sunflower Ave	C	xxxxxx 0.785	C	xxxxxx 0.785	+ 0.000 V/C
# 23 Harbor Blvd and South Coast Dr	A	xxxxxx 0.587	A	xxxxxx 0.587	+ 0.000 V/C
# 24 Harbor Blvd and NB I-405 Off-R	B	20.0 0.749	B	20.0 0.749	+ 0.000 D/V

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 Existing Year 2013  
 No Project  
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Intersection		Base		Future			Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 25 Harbor Blvd and SB I-405 Off-R	C	28.0	0.868	C 28.0	0.868	+ 0.000	D/V
# 26 Fairview S and 17th St	D	xxxxx	0.824	D xxxxx	0.824	+ 0.000	V/C
# 27 Fairview St and 1st St	D	xxxxx	0.806	D xxxxx	0.806	+ 0.000	V/C
# 28 Fairview St and McFadden Ave	B	xxxxx	0.694	B xxxxx	0.694	+ 0.000	V/C
# 29 Fairview St and Edinger Ave	B	xxxxx	0.649	B xxxxx	0.649	+ 0.000	V/C

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #1 Euclid St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.810
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	120	Level Of Service:	D

\*\*\*\*\*

Street Name:	Euclid St						Westminster Ave													
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	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	2	1	0	1	0	2	1	0	1	0	2	1	0	1	0	3	0	1

Volume Module:

Base Vol:	310	1515	131	176	1416	116	184	638	248	180	701	161
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:	310	1515	131	176	1416	116	184	638	248	180	701	161
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:	310	1515	131	176	1416	116	184	638	248	180	701	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	1515	131	176	1416	116	184	638	248	180	701	161
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:	310	1515	131	176	1416	116	184	638	248	180	701	161

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.76	0.24	1.00	2.77	0.23	1.00	2.16	0.84	1.00	3.00	1.00
Final Sat.:	1600	4618	382	1600	4637	363	1600	3656	1344	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.19	0.33	0.34	0.11	0.31	0.32	0.12	0.17	0.18	0.11	0.14	0.10
Crit Moves:	****					****		****	****			

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Euclid St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.796
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	91	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						McFadden Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	168	1599	95	101	1099	117	92	370	164	61	441	216
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:	168	1599	95	101	1099	117	92	370	164	61	441	216
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:	168	1599	95	101	1099	117	92	370	164	61	441	216
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	1599	95	101	1099	117	92	370	164	61	441	216
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:	168	1599	95	101	1099	117	92	370	164	61	441	216

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.00	1.00	1.00	2.71	0.29	1.00	1.39	0.61	1.00	1.34	0.66
Final Sat.:	1600	3400	1600	1600	4538	462	1600	2317	983	1600	2248	1052

Capacity Analysis Module:

Vol/Sat:	0.11	0.47	0.06	0.06	0.24	0.25	0.06	0.16	0.17	0.04	0.20	0.21
Crit Moves:	****			****			****			****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #3 Euclid St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	97	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						Edinger Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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:	2	0	2	1	0	2	0	2	1	0	1	0	2	0	1

Volume Module:

Base Vol:	464	1536	127	173	823	193	182	648	171	89	852	167
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:	464	1536	127	173	823	193	182	648	171	89	852	167
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:	464	1536	127	173	823	193	182	648	171	89	852	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	464	1536	127	173	823	193	182	648	171	89	852	167
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:	464	1536	127	173	823	193	182	648	171	89	852	167

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.77	0.23	2.00	2.43	0.57	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	4633	367	3200	4088	912	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.15	0.33	0.35	0.05	0.20	0.21	0.11	0.19	0.11	0.06	0.25	0.10
Crit Moves:			****	****			****				****	

\*\*\*\*\*



Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #4 Newhope St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.851
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	153	Level Of Service:	D

\*\*\*\*\*

Street Name:	Newhope St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit			Prot+Permit			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

Volume Module:

Base Vol:	119	1233	163	107	806	100	215	636	165	190	749	275
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:	119	1233	163	107	806	100	215	636	165	190	749	275
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:	119	1233	163	107	806	100	215	636	165	190	749	275
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	1233	163	107	806	100	215	636	165	190	749	275
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:	119	1233	163	107	806	100	215	636	165	190	749	275

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	1.77	0.23	1.00	1.78	0.22	1.00	2.38	0.62	1.00	2.19	0.81
Final Sat.:	1600	2926	374	1600	2947	353	1600	4011	989	1600	3711	1289

Capacity Analysis Module:

Vol/Sat:	0.07	0.42	0.44	0.07	0.27	0.28	0.13	0.16	0.17	0.12	0.20	0.21
Crit Moves:			****	****			****					****

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #5 Newhope St and Hazard Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.586
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	45	Level Of Service:	A

\*\*\*\*\*

Street Name:	Newhope St						Hazard Ave					
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	1	0	1	1	0	1

Volume Module:

Base Vol:	120	1398	57	36	770	114	69	145	81	30	136	74
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	1398	57	36	770	114	69	145	81	30	136	74
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	1398	57	36	770	114	69	145	81	30	136	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	1398	57	36	770	114	69	145	81	30	136	74
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	1398	57	36	770	114	69	145	81	30	136	74

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.92	0.08	1.00	1.74	0.26	1.00	1.28	0.72	1.00	1.30	0.70
Final Sat.:	1600	3175	125	1600	2887	413	1600	2153	1147	1600	2172	1128

Capacity Analysis Module:

Vol/Sat:	0.08	0.44	0.45	0.02	0.27	0.28	0.04	0.07	0.07	0.02	0.06	0.07
Crit Moves:			****	****			****					****

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #6 Newhope St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.831
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	135	Level Of Service:	D

\*\*\*\*\*

Street Name:	Newhope St						1st Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			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	1	0	2	1	0	2

Volume Module:

Base Vol:	130	1004	182	167	662	143	183	690	117	163	909	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:	130	1004	182	167	662	143	183	690	117	163	909	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:	130	1004	182	167	662	143	183	690	117	163	909	251
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	1004	182	167	662	143	183	690	117	163	909	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:	130	1004	182	167	662	143	183	690	117	163	909	251

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.69	0.31	1.00	1.64	0.36	1.00	2.57	0.43	1.00	2.35	0.65
Final Sat.:	1600	2809	491	1600	2732	568	1600	4304	696	1600	3961	1039

Capacity Analysis Module:

Vol/Sat:	0.08	0.36	0.37	0.10	0.24	0.25	0.11	0.16	0.17	0.10	0.23	0.24
Crit Moves:			****	****			****					****

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #7 Newhope St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.774
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	101	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	1	0

Volume Module:

Base Vol:	99	1171	157	127	600	107	78	462	63	110	520	219
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:	99	1171	157	127	600	107	78	462	63	110	520	219
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:	99	1171	157	127	600	107	78	462	63	110	520	219
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	1171	157	127	600	107	78	462	63	110	520	219
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:	99	1171	157	127	600	107	78	462	63	110	520	219

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	1.76	0.24	1.00	1.70	0.30	1.00	1.76	0.24	1.00	1.41	0.59
Final Sat.:	1600	2922	378	1600	2816	484	1600	2916	384	1600	2352	948

Capacity Analysis Module:

Vol/Sat:	0.06	0.40	0.42	0.08	0.21	0.22	0.05	0.16	0.16	0.07	0.22	0.23
Crit Moves:			****	****			****					****

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #8 Newhope St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.796
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						Edinger Ave													
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	1	0	2	0	1	1	0	2	0	1

Volume Module:

Base Vol:	181	1119	138	119	517	88	100	729	112	90	907	214
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:	181	1119	138	119	517	88	100	729	112	90	907	214
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:	181	1119	138	119	517	88	100	729	112	90	907	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	1119	138	119	517	88	100	729	112	90	907	214
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:	181	1119	138	119	517	88	100	729	112	90	907	214

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	1.78	0.22	1.00	1.71	0.29	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2949	351	1600	2835	465	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.38	0.39	0.07	0.18	0.19	0.06	0.21	0.07	0.06	0.27	0.13
Crit Moves:			****	****			****				****	

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #9 Harbor Blvd and Garden Grove Blvd

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.670
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Garden Grove Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	2	0	2	1	0	2

Volume Module:

Base Vol:	331	1140	174	130	882	198	359	732	221	294	737	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:	331	1140	174	130	882	198	359	732	221	294	737	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:	331	1140	174	130	882	198	359	732	221	294	737	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	331	1140	174	130	882	198	359	732	221	294	737	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:	331	1140	174	130	882	198	359	732	221	294	737	88

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	2.30	0.70	2.00	2.68	0.32
Final Sat.:	1600	5100	1600	1600	5100	1600	3200	3887	1113	3200	4488	512

Capacity Analysis Module:

Vol/Sat:	0.21	0.22	0.11	0.08	0.17	0.12	0.11	0.19	0.20	0.09	0.16	0.17
Crit Moves:	****				****				****	****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #10 Harbor Blvd and WB SR-22 Off-Ramp  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.708  
Loss Time (sec): 0 Average Delay (sec/veh): 24.6  
Optimal Cycle: 78 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound SR-22 Off-Ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	2	1	0	0	1	0	1

Volume Module:

Base Vol:	111	1593	0	0	1466	34	76	0	77	593	91	178
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:	111	1593	0	0	1466	34	76	0	77	593	91	178
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:	111	1593	0	0	1466	34	76	0	77	593	91	178
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	1593	0	0	1466	34	76	0	77	593	91	178
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:	111	1593	0	0	1466	34	76	0	77	593	91	178

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.94	0.94	0.94
Lanes:	1.00	3.00	0.00	0.00	2.93	0.07	0.50	0.00	0.50	1.62	0.19	1.19
Final Sat.:	1805	5187	0	0	5054	117	859	0	870	2888	340	2113

Capacity Analysis Module:

Vol/Sat:	0.06	0.31	0.00	0.00	0.29	0.29	0.09	0.00	0.09	0.21	0.27	0.08
Crit Moves:	****				****				****		****	
Green/Cycle:	0.09	0.50	0.00	0.00	0.41	0.41	0.13	0.00	0.13	0.38	0.38	0.38
Volume/Cap:	0.71	0.62	0.00	0.00	0.71	0.71	0.71	0.00	0.71	0.54	0.71	0.22
Delay/Veh:	58.3	18.7	0.0	0.0	25.7	25.7	52.3	0.0	52.3	24.7	28.3	21.1
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:	58.3	18.7	0.0	0.0	25.7	25.7	52.3	0.0	52.3	24.7	28.3	21.1
LOS by Move:	E	B	A	A	C	C	D	A	D	C	C	C
HCM2kAvgQ:	5	13	0	0	15	15	6	0	6	9	13	3

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
No Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #11 Trask Ave and EB SR-22 On-Ramp  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.380  
Loss Time (sec): 0 Average Delay (sec/veh): 10.7  
Optimal Cycle: 37 Level of Service: B  
\*\*\*\*\*

Street Name:	Eastbound SR-22 On-Ramp						Trask Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:												
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:	0	0	0	0	0	0	2	0	1	0	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	781	585	0	0	565	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	781	585	0	0	565	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	781	585	0	0	565	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	781	585	0	0	565	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	0	0	0	781	585	0	0	565	53

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	0.95	0.85
Lanes:	0.00	0.00	1.00	0.00	0.00	0.00	2.00	1.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	1900	0	0	0	3502	1900	0	1900	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.31	0.00	0.00	0.16	0.03
Crit Moves:							****				****	
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.59	1.00	0.00	0.00	0.41	0.41
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.31	0.00	0.00	0.38	0.08
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.1	0.0	0.0	20.6	17.9
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:	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.1	0.0	0.0	20.6	17.9
LOS by Move:	A	A	A	A	A	A	B	A	A	A	C	B
HCM2kAvgQ:	0	0	0	0	0	0	7	0	0	0	6	1

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #12 Harbor Blvd and Trask Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	1.058
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

\*\*\*\*\*

Street Name:	Harbor Blvd						Trask Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	93	1194	436	362	1211	119	145	538	362	74	192	750
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	1194	436	362	1211	119	145	538	362	74	192	750
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	1194	436	362	1211	119	145	538	362	74	192	750
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	1194	436	362	1211	119	145	538	362	74	192	750
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	1194	436	362	1211	119	145	538	362	74	192	750

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.23	0.27	0.23	0.24	0.07	0.09	0.16	0.23	0.05	0.06	0.47
Crit Moves:			****	****			****					****

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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*****
Intersection #13 Harbor Blvd and Westminster Ave
*****
Cycle (sec):           100           Critical Vol./Cap.(X):           0.744
Loss Time (sec):      0             Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        89             Level Of Service:                C
*****

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Street Name:	Harbor Blvd						Westminster Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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	3	1	0	2	1	0	3

Volume Module:

Base Vol:	256	1413	243	209	1318	165	152	584	36	222	793	181
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:	256	1413	243	209	1318	165	152	584	36	222	793	181
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:	256	1413	243	209	1318	165	152	584	36	222	793	181
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	1413	243	209	1318	165	152	584	36	222	793	181
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:	256	1413	243	209	1318	165	152	584	36	222	793	181

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	2.56	0.44	1.00	3.00	1.00	1.00	2.83	0.17	1.00	3.00	1.00
Final Sat.:	1600	4296	704	1600	5100	1600	1600	4721	279	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.16	0.33	0.34	0.13	0.26	0.10	0.10	0.12	0.13	0.14	0.16	0.11
Crit Moves:			****	****					****	****		

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #14 Harbor Blvd and Hazard Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.539
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						Hazard Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	2	1	0	1	0	2	1	0	1	0	1	0	1	1	0	0	1	0

Volume Module:

Base Vol:	131	1877	46	47	1483	118	57	47	95	29	85	33
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:	131	1877	46	47	1483	118	57	47	95	29	85	33
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:	131	1877	46	47	1483	118	57	47	95	29	85	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	1877	46	47	1483	118	57	47	95	29	85	33
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:	131	1877	46	47	1483	118	57	47	95	29	85	33

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	1.00	2.93	0.07	1.00	2.78	0.22	1.00	1.00	1.00	1.00	0.72	0.28
Final Sat.:	1600	4885	115	1600	4646	354	1600	1700	1600	1600	1153	447

Capacity Analysis Module:

Vol/Sat:	0.08	0.38	0.40	0.03	0.32	0.33	0.04	0.03	0.06	0.02	0.07	0.07
Crit Moves:			****	****			****				****	

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #15 Harbor Blvd and 5th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						5th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	0	1	0	1

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Volume Module:

Base Vol:	91	1652	112	125	1315	85	83	131	74	119	240	163
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:	91	1652	112	125	1315	85	83	131	74	119	240	163
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:	91	1652	112	125	1315	85	83	131	74	119	240	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	1652	112	125	1315	85	83	131	74	119	240	163
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:	91	1652	112	125	1315	85	83	131	74	119	240	163

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	1.00	2.81	0.19	1.00	2.82	0.18	1.00	0.64	0.36	1.00	1.00	1.00
Final Sat.:	1600	4695	305	1600	4709	291	1600	1022	578	1600	1700	1600

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Capacity Analysis Module:

Vol/Sat:	0.06	0.35	0.37	0.08	0.28	0.29	0.05	0.13	0.13	0.07	0.14	0.10
Crit Moves:			****	****			****			****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #16 Harbor Blvd and 1st St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.804
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	116	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						1st Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			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	3	2	0	2	1	0	2

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Volume Module:

Base Vol:	225	1593	125	255	1096	124	168	709	133	288	979	143
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	1593	125	255	1096	124	168	709	133	288	979	143
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	1593	125	255	1096	124	168	709	133	288	979	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	225	1593	125	255	1096	124	168	709	133	288	979	143
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	1593	125	255	1096	124	168	709	133	288	979	143

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.78	0.22	1.00	3.00	1.00	2.00	2.53	0.47	2.00	2.62	0.38
Final Sat.:	1600	4651	349	1600	5100	1600	3200	4242	758	3200	4388	612

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Capacity Analysis Module:

Vol/Sat:	0.14	0.34	0.36	0.16	0.21	0.08	0.05	0.17	0.18	0.09	0.22	0.23
Crit Moves:			****	****			****					****

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #17 Harbor Blvd and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.717
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						McFadden Ave					
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:	2	0	3	0	1		2	0	2	1	0	
	0	1				0	1	0	1	1	0	

Volume Module:

Base Vol:	211	1666	128	242	1175	100	191	497	64	190	470	155
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:	211	1666	128	242	1175	100	191	497	64	190	470	155
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:	211	1666	128	242	1175	100	191	497	64	190	470	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	211	1666	128	242	1175	100	191	497	64	190	470	155
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:	211	1666	128	242	1175	100	191	497	64	190	470	155

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	2.00	3.00	1.00	2.00	2.76	0.24	1.00	1.77	0.23	1.00	1.50	0.50
Final Sat.:	3200	5100	1600	3200	4624	376	1600	2935	365	1600	2506	794

Capacity Analysis Module:

Vol/Sat:	0.07	0.33	0.08	0.08	0.25	0.27	0.12	0.17	0.18	0.12	0.19	0.20
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #18 Harbor Blvd and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.683
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Edinger Ave					
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:	2	0	3	0	1		2	0	3	0	1	

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Volume Module:

Base Vol:	212	1857	114	243	1029	82	157	760	185	147	628	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:	212	1857	114	243	1029	82	157	760	185	147	628	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:	212	1857	114	243	1029	82	157	760	185	147	628	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	212	1857	114	243	1029	82	157	760	185	147	628	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:	212	1857	114	243	1029	82	157	760	185	147	628	89

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.41	0.59	2.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	3200	4060	940	3200	5100	1600

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Capacity Analysis Module:

Vol/Sat:	0.07	0.36	0.07	0.08	0.20	0.05	0.05	0.19	0.20	0.05	0.12	0.06
Crit Moves:	****			****			****			****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #19 Harbor Blvd and Warner Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.729
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	84	Level Of Service:	C

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Street Name:	Harbor Blvd						Warner Ave					
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:	2	0	2	1	0	0	2	0	3	0	1	1

Volume Module:

Base Vol:	358	1828	155	187	699	93	105	638	195	117	1145	252
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:	358	1828	155	187	699	93	105	638	195	117	1145	252
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:	358	1828	155	187	699	93	105	638	195	117	1145	252
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	358	1828	155	187	699	93	105	638	195	117	1145	252
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:	358	1828	155	187	699	93	105	638	195	117	1145	252

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.77	0.23	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	4625	375	3200	5100	1600	3200	5100	1600	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.40	0.41	0.06	0.14	0.06	0.03	0.13	0.12	0.04	0.22	0.16
Crit Moves:			****	****			****				****	

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #20 Harbor Blvd and Segerstrom Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.804
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	116	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Segerstrom Ave					
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:	2	0	2	1	0	2	1	0	1	1	0	2

Volume Module:

Base Vol:	223	2038	60	83	938	72	97	425	171	72	866	287
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	2038	60	83	938	72	97	425	171	72	866	287
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	2038	60	83	938	72	97	425	171	72	866	287
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	223	2038	60	83	938	72	97	425	171	72	866	287
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	2038	60	83	938	72	97	425	171	72	866	287

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	2.00	2.91	0.09	1.00	2.79	0.21	1.00	1.43	0.57	1.00	2.00	1.00
Final Sat.:	3200	4863	137	1600	4658	342	1600	2382	918	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.42	0.44	0.05	0.20	0.21	0.06	0.18	0.19	0.05	0.25	0.18
Crit Moves:			****	****			****				****	

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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*****
Intersection #21 Harbor Blvd and MacArthur Blvd
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.767
Loss Time (sec):      0            Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        98            Level Of Service:                  C
*****

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Street Name:	Harbor Blvd						MacArthur Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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:	2	0	3	0	1	1	1	0	3	0	1	1

Volume Module:

Base Vol:	494	1776	141	166	1060	147	134	472	205	147	1444	326
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:	494	1776	141	166	1060	147	134	472	205	147	1444	326
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:	494	1776	141	166	1060	147	134	472	205	147	1444	326
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	494	1776	141	166	1060	147	134	472	205	147	1444	326
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:	494	1776	141	166	1060	147	134	472	205	147	1444	326

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	1600	5100	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.15	0.35	0.09	0.05	0.21	0.09	0.08	0.09	0.13	0.09	0.28	0.20
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #22 Harbor Blvd and Sunflower Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.785
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	106	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Sunflower Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	1	0	0	2	0	3	0	1	1
	0	1	0	1	0	0	1	0	1	1	0	0

Volume Module:

Base Vol:	71	2048	139	106	1511	42	70	158	165	373	354	197
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	2048	139	106	1511	42	70	158	165	373	354	197
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	2048	139	106	1511	42	70	158	165	373	354	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	2048	139	106	1511	42	70	158	165	373	354	197
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	2048	139	106	1511	42	70	158	165	373	354	197

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	2.00	2.81	0.19	2.00	3.00	1.00	1.00	1.00	1.00	1.21	1.15	0.64
Final Sat.:	3200	4695	305	3200	5100	1600	1600	1700	1600	1934	1839	1028

Capacity Analysis Module:

Vol/Sat:	0.02	0.44	0.46	0.03	0.30	0.03	0.04	0.09	0.10	0.19	0.19	0.19
Crit Moves:			****	****					****	****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #23 Harbor Blvd and South Coast Drive

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.587
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						South Coast Drive													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	3	1	1	2	0	4	0	1	1	0	0	1	1	2	0	2	0	1

Volume Module:

Base Vol:	303	2019	207	110	1780	160	20	45	381	311	764	224
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:	303	2019	207	110	1780	160	20	45	381	311	764	224
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:	303	2019	207	110	1780	160	20	45	381	311	764	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	303	2019	207	110	1780	160	20	45	381	311	764	224
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:	303	2019	207	110	1780	160	20	45	381	311	764	224

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	0.21	1.79	2.00	2.00	1.00
Final Sat.:	3200	6800	1600	3200	6800	1600	1600	338	2862	3200	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.09	0.30	0.13	0.03	0.26	0.10	0.01	0.13	0.13	0.10	0.22	0.14
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Existing Year 2013  
No Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #24 Harbor Blvd and NB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.749  
Loss Time (sec): 0 Average Delay (sec/veh): 20.0  
Optimal Cycle: 91 Level of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound I-405 Off Ramp					
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:	0	0	4	0	0	4	0	0	0	1	0	1

Volume Module:

Base Vol:	0	1607	0	0	2549	0	0	0	0	979	0	969
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	1607	0	0	2549	0	0	0	0	979	0	969
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1607	0	0	2549	0	0	0	0	979	0	969
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1607	0	0	2549	0	0	0	0	979	0	969
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1607	0	0	2549	0	0	0	0	979	0	969

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.90	1.00	0.90
Lanes:	0.00	4.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	1.50	0.00	1.50
Final Sat.:	0	6916	0	0	6916	0	0	0	0	2575	0	2566

Capacity Analysis Module:

Vol/Sat:	0.00	0.23	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.38	0.00	0.38
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.49	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Volume/Cap:	0.00	0.47	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.75	0.00	0.74
Delay/Veh:	0.0	16.9	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.8	0.0	20.7
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:	0.0	16.9	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.8	0.0	20.7
LOS by Move:	A	B	A	A	C	A	A	A	A	C	A	C
HCM2kAvgQ:	0	9	0	0	18	0	0	0	0	17	0	17

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
No Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #25 Harbor Blvd and SB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868  
Loss Time (sec): 0 Average Delay (sec/veh): 28.0  
Optimal Cycle: 173 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Eastbound I-405 Off-Ramp					
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:	0	0	3	0	0	4	2	0	0	0	0	0

Volume Module:

Base Vol:	0	1886	0	0	2568	0	203	0	802	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	1886	0	0	2568	0	203	0	802	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1886	0	0	2568	0	203	0	802	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1886	0	0	2568	0	203	0	802	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1886	0	0	2568	0	203	0	802	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	4.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	6916	0	3502	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.36	0.00	0.00	0.37	0.00	0.06	0.00	0.50	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.43	0.00	0.00	0.43	0.00	0.57	0.00	0.57	0.00	0.00	0.00
Volume/Cap:	0.00	0.85	0.00	0.00	0.87	0.00	0.10	0.00	0.87	0.00	0.00	0.00
Delay/Veh:	0.0	29.0	0.0	0.0	29.0	0.0	9.7	0.0	27.0	0.0	0.0	0.0
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:	0.0	29.0	0.0	0.0	29.0	0.0	9.7	0.0	27.0	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	A	A	C	A	A	A
HCM2kAvgQ:	0	22	0	0	23	0	1	0	24	0	0	0

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #26 Fairview S and 17th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.824
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	130	Level Of Service:	D

\*\*\*\*\*

Street Name:	Fairview Street						17th Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	2	0	1	2	0	2	0	1	1	0	3	0	1	1	0	2	1	0

Volume Module:

Base Vol:	275	1008	159	355	984	104	230	756	170	201	945	367
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:	275	1008	159	355	984	104	230	756	170	201	945	367
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:	275	1008	159	355	984	104	230	756	170	201	945	367
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	275	1008	159	355	984	104	230	756	170	201	945	367
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:	275	1008	159	355	984	104	230	756	170	201	945	367

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.16	0.84
Final Sat.:	3200	3400	1600	3200	3400	1600	1600	5100	1600	1600	3657	1343

Capacity Analysis Module:

Vol/Sat:	0.09	0.30	0.10	0.11	0.29	0.07	0.14	0.15	0.11	0.13	0.26	0.27
Crit Moves:	****			****			****			****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #27 Fairview St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.806
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	118	Level Of Service:	D

\*\*\*\*\*

Street Name:	Fairview Street						1st Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0	2	1	0	1	0	2	1	0

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Volume Module:

Base Vol:	205	1422	142	167	1159	228	157	1016	193	220	1160	192
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:	205	1422	142	167	1159	228	157	1016	193	220	1160	192
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:	205	1422	142	167	1159	228	157	1016	193	220	1160	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	205	1422	142	167	1159	228	157	1016	193	220	1160	192
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:	205	1422	142	167	1159	228	157	1016	193	220	1160	192

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	2.51	0.49	1.00	2.52	0.48	1.00	2.57	0.43
Final Sat.:	1600	5100	1600	1600	4211	789	1600	4234	766	1600	4318	682

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Capacity Analysis Module:

Vol/Sat:	0.13	0.28	0.09	0.10	0.28	0.29	0.10	0.24	0.25	0.14	0.27	0.28
Crit Moves:	****					****			****	****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Fairview St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.694
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	B

\*\*\*\*\*

Street Name:	Fairview Street				McFadden Ave															
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	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	1	1	0	1	0	1	1	0

Volume Module:

Base Vol:	187	1473	146	123	1041	220	212	602	156	102	492	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:	187	1473	146	123	1041	220	212	602	156	102	492	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:	187	1473	146	123	1041	220	212	602	156	102	492	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	1473	146	123	1041	220	212	602	156	102	492	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:	187	1473	146	123	1041	220	212	602	156	102	492	133

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	1.59	0.41	1.00	1.57	0.43
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	2641	659	1600	2619	681

Capacity Analysis Module:

Vol/Sat:	0.12	0.29	0.09	0.08	0.20	0.14	0.13	0.23	0.24	0.06	0.19	0.20
Crit Moves:	****			****			****			****		

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Existing Year 2013  
No Project

Level Of Service Computation Report

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

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Intersection #29 Fairview St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.649
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	B

\*\*\*\*\*

Street Name:	Fairview St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	1	0	0

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Volume Module:

Base Vol:	281	1549	135	204	894	146	153	497	122	155	705	192
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:	281	1549	135	204	894	146	153	497	122	155	705	192
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:	281	1549	135	204	894	146	153	497	122	155	705	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	281	1549	135	204	894	146	153	497	122	155	705	192
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:	281	1549	135	204	894	146	153	497	122	155	705	192

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	2.00	2.76	0.24	2.00	2.58	0.42	2.00	2.41	0.59	2.00	2.36	0.64
Final Sat.:	3200	4615	385	3200	4326	674	3200	4054	946	3200	3973	1027

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Capacity Analysis Module:

Vol/Sat:	0.09	0.34	0.35	0.06	0.21	0.22	0.05	0.12	0.13	0.05	0.18	0.19
Crit Moves:			****	****			****					****

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## **TRAFFIX WORKSHEETS**

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YEAR 2013 –WITH PROJECT – AM

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 Existing Year 2013  
 With Project  
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Impact Analysis Report  
 Level Of Service

Intersection	Base		Future		Change in	
	LOS	Veh C	LOS	Veh C		
# 1 Euclid St and Westminster Ave	C	xxxxxx 0.786	C	xxxxxx 0.786	+ 0.000	V/C
# 2 Euclid St and McFadden Ave	D	xxxxxx 0.819	D	xxxxxx 0.819	+ 0.000	V/C
# 3 Euclid St and Edinger Ave	D	xxxxxx 0.806	D	xxxxxx 0.806	+ 0.000	V/C
# 4 Newhope St and Westminster Ave	C	xxxxxx 0.728	C	xxxxxx 0.728	+ 0.000	V/C
# 5 Newhope St and Hazard Ave	A	xxxxxx 0.500	A	xxxxxx 0.500	+ 0.000	V/C
# 6 Newhope St and 1st St	C	xxxxxx 0.711	C	xxxxxx 0.711	+ 0.000	V/C
# 7 Newhope St and McFadden Ave	B	xxxxxx 0.687	B	xxxxxx 0.687	+ 0.000	V/C
# 8 Newhope St and Edinger Ave	C	xxxxxx 0.751	C	xxxxxx 0.751	+ 0.000	V/C
# 9 Harbor Blvd and Garden Grove B	A	xxxxxx 0.529	A	xxxxxx 0.529	+ 0.000	V/C
# 10 Harbor Blvd and WB SR-22 Off-R	C	25.8 0.693	C	25.8 0.693	+ 0.000	D/V
# 11 Trask Ave and EB SR-22 On-Ramp	A	9.9 0.391	A	9.9 0.391	+ 0.000	D/V
# 12 Harbor Blvd and Trask Ave	D	xxxxxx 0.859	D	xxxxxx 0.859	+ 0.000	V/C
# 13 Harbor Blvd and Westminster Av	B	xxxxxx 0.682	B	xxxxxx 0.682	+ 0.000	V/C
# 14 Harbor Blvd and Hazard Ave	B	xxxxxx 0.631	B	xxxxxx 0.631	+ 0.000	V/C
# 15 Harbor Blvd and 5th St	B	xxxxxx 0.669	B	xxxxxx 0.669	+ 0.000	V/C
# 16 Harbor Blvd and 1st St	C	xxxxxx 0.735	C	xxxxxx 0.735	+ 0.000	V/C
# 17 Harbor Blvd and McFadden Ave	C	xxxxxx 0.735	C	xxxxxx 0.735	+ 0.000	V/C
# 18 Harbor Blvd and Edinger Ave	B	xxxxxx 0.674	B	xxxxxx 0.674	+ 0.000	V/C
# 19 Harbor Blvd and Warner Ave	B	xxxxxx 0.674	B	xxxxxx 0.674	+ 0.000	V/C
# 20 Harbor Blvd and Segerstrom Ave	C	xxxxxx 0.758	C	xxxxxx 0.758	+ 0.000	V/C
# 21 Harbor Blvd and MacArthur Blvd	C	xxxxxx 0.736	C	xxxxxx 0.736	+ 0.000	V/C
# 22 Harbor Blvd and Sunflower Ave	A	xxxxxx 0.586	A	xxxxxx 0.586	+ 0.000	V/C
# 23 Harbor Blvd and South Coast Dr	A	xxxxxx 0.466	A	xxxxxx 0.466	+ 0.000	V/C
# 24 Harbor Blvd and NB I-405 Off-R	B	17.4 0.641	B	17.4 0.641	+ 0.000	D/V

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Existing Year 2013  
With Project  
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Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 25 Harbor Blvd and SB I-405 Off-R	B	18.5	0.577	B 18.5	0.577	+ 0.000	D/V
# 26 Fairview St and 17th St	C	xxxxx	0.767	C xxxxx	0.767	+ 0.000	V/C
# 27 Fairview St and 1st St	D	xxxxx	0.829	D xxxxx	0.829	+ 0.000	V/C
# 28 Fairview St and McFadden Ave	C	xxxxx	0.703	C xxxxx	0.703	+ 0.000	V/C
# 29 Fairview St and Edinger Ave	C	xxxxx	0.740	C xxxxx	0.740	+ 0.000	V/C

Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #1 Euclid St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						Westminster Ave					
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	2	1	0	2	1	0	3

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Volume Module:

Base Vol:	159	1266	164	203	1911	94	149	604	165	174	504	131
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:	159	1266	164	203	1911	94	149	604	165	174	504	131
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:	159	1266	164	203	1911	94	149	604	165	174	504	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	1266	164	203	1911	94	149	604	165	174	504	131
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:	159	1266	164	203	1911	94	149	604	165	174	504	131

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	2.66	0.34	1.00	2.86	0.14	1.00	2.36	0.64	1.00	3.00	1.00
Final Sat.:	1600	4450	550	1600	4775	225	1600	3970	1030	1600	5100	1600

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Capacity Analysis Module:

Vol/Sat:	0.10	0.28	0.30	0.13	0.40	0.42	0.09	0.15	0.16	0.11	0.10	0.08
Crit Moves:	****					****			****	****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Euclid St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.819
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	103	Level Of Service:	D

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Street Name:	Euclid St						McFadden Ave					
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			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	0	1	0	1	1	0	1

Volume Module:

Base Vol:	131	1037	119	92	2094	188	197	420	621	74	348	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:	131	1037	119	92	2094	188	197	420	621	74	348	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:	131	1037	119	92	2094	188	197	420	621	74	348	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	1037	119	92	2094	188	197	420	621	74	348	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:	131	1037	119	92	2094	188	197	420	621	74	348	114

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00
Lanes:	1.00	2.00	1.00	1.00	2.75	0.25	1.00	1.00	1.00	1.00	1.51	0.49
Final Sat.:	1600	3400	1600	1600	4605	395	1600	1700	1600	1600	2510	790

Capacity Analysis Module:

Vol/Sat:	0.08	0.31	0.07	0.06	0.45	0.48	0.12	0.25	0.39	0.05	0.14	0.14
Crit Moves:	****					****	****				****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #3 Euclid St and Edinger Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.806
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	118	Level Of Service:	D

\*\*\*\*\*

Street Name:	Euclid St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	0	1	0

Volume Module:

Base Vol:	151	900	110	204	1707	176	253	1018	414	108	603	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:	151	900	110	204	1707	176	253	1018	414	108	603	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:	151	900	110	204	1707	176	253	1018	414	108	603	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	900	110	204	1707	176	253	1018	414	108	603	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:	151	900	110	204	1707	176	253	1018	414	108	603	127

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.67	0.33	2.00	2.72	0.28	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	4477	523	3200	4551	449	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.20	0.21	0.06	0.38	0.39	0.16	0.30	0.26	0.07	0.18	0.08
Crit Moves:	****					****	****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #4 Newhope St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.728
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	84	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						Westminster Ave													
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			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:	120	714	261	213	918	106	124	781	125	163	469	136
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	714	261	213	918	106	124	781	125	163	469	136
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	714	261	213	918	106	124	781	125	163	469	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	714	261	213	918	106	124	781	125	163	469	136
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	714	261	213	918	106	124	781	125	163	469	136

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.46	0.54	1.00	1.79	0.21	1.00	2.59	0.41	1.00	2.33	0.67
Final Sat.:	1600	2443	857	1600	2969	331	1600	4338	662	1600	3921	1079

Capacity Analysis Module:

Vol/Sat:	0.08	0.29	0.30	0.13	0.31	0.32	0.08	0.18	0.19	0.10	0.12	0.13
Crit Moves:			****	****					****	****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #5 Newhope St and Hazard Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.500
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	37	Level Of Service:	A

\*\*\*\*\*

Street Name:	Newhope St						Hazard Ave					
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	1	0	1	1	0	1

Volume Module:

Base Vol:	101	689	74	44	914	86	75	74	140	71	186	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:	101	689	74	44	914	86	75	74	140	71	186	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:	101	689	74	44	914	86	75	74	140	71	186	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	689	74	44	914	86	75	74	140	71	186	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:	101	689	74	44	914	86	75	74	140	71	186	62

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.04	1.00
Lanes:	1.00	1.81	0.19	1.00	1.83	0.17	1.00	1.00	1.00	1.00	1.50	0.50
Final Sat.:	1600	2990	310	1600	3025	275	1600	1700	1600	1600	2500	800

Capacity Analysis Module:

Vol/Sat:	0.06	0.23	0.24	0.03	0.30	0.31	0.05	0.04	0.09	0.04	0.07	0.08
Crit Moves:	****					****	****					****

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #6 Newhope St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.711
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	2	1	0

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Volume Module:

Base Vol:	108	562	165	142	962	230	152	636	80	195	653	143
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:	108	562	165	142	962	230	152	636	80	195	653	143
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:	108	562	165	142	962	230	152	636	80	195	653	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	562	165	142	962	230	152	636	80	195	653	143
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:	108	562	165	142	962	230	152	636	80	195	653	143

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.55	0.45	1.00	1.61	0.39	1.00	2.66	0.34	1.00	2.46	0.54
Final Sat.:	1600	2574	726	1600	2683	617	1600	4464	536	1600	4138	862

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Capacity Analysis Module:

Vol/Sat:	0.07	0.22	0.23	0.09	0.36	0.37	0.10	0.14	0.15	0.12	0.16	0.17
Crit Moves:	****					****			****	****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #7 Newhope St and McFadden Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.687
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	B

\*\*\*\*\*

Street Name:	Newhope St						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	1	0

Volume Module:

Base Vol:	141	565	167	116	1012	105	94	415	135	136	432	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:	141	565	167	116	1012	105	94	415	135	136	432	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:	141	565	167	116	1012	105	94	415	135	136	432	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	565	167	116	1012	105	94	415	135	136	432	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:	141	565	167	116	1012	105	94	415	135	136	432	100

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	1.54	0.46	1.00	1.81	0.19	1.00	1.51	0.49	1.00	1.62	0.38
Final Sat.:	1600	2570	730	1600	2999	301	1600	2515	785	1600	2698	602

Capacity Analysis Module:

Vol/Sat:	0.09	0.22	0.23	0.07	0.34	0.35	0.06	0.17	0.17	0.09	0.16	0.17
Crit Moves:	****					****	****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #8 Newhope St and Edinger Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.751  
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 92 Level Of Service: C  
\*\*\*\*\*

Street Name:	Newhope St						Edinger Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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	1	0	2	1	0	2

Volume Module:

Base Vol:	50	467	130	307	1093	75	70	823	92	181	585	132
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	467	130	307	1093	75	70	823	92	181	585	132
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	467	130	307	1093	75	70	823	92	181	585	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	467	130	307	1093	75	70	823	92	181	585	132
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	467	130	307	1093	75	70	823	92	181	585	132

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	1.56	0.44	1.00	1.87	0.13	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2603	697	1600	3095	205	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.18	0.19	0.19	0.35	0.37	0.04	0.24	0.06	0.11	0.17	0.08
Crit Moves:	****					****		****		****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #9 Harbor Blvd and Garden Grove Blvd

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.529
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						Garden Grove Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	2	0	2	1	0

Volume Module:

Base Vol:	194	927	156	84	878	136	261	671	260	133	334	27
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:	194	927	156	84	878	136	261	671	260	133	334	27
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:	194	927	156	84	878	136	261	671	260	133	334	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	927	156	84	878	136	261	671	260	133	334	27
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:	194	927	156	84	878	136	261	671	260	133	334	27

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	2.16	0.84	2.00	2.78	0.22
Final Sat.:	1600	5100	1600	1600	5100	1600	3200	3660	1340	3200	4641	359

Capacity Analysis Module:

Vol/Sat:	0.12	0.18	0.10	0.05	0.17	0.09	0.08	0.18	0.19	0.04	0.07	0.08
Crit Moves:	****			****			****		****	****		

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Existing Year 2013  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #10 Harbor Blvd and WB SR-22 Off-Ramp
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.693
Loss Time (sec):      0            Average Delay (sec/veh):          25.8
Optimal Cycle:        74            Level of Service:                  C
*****

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Street Name:	Harbor Blvd						Westbound SR-22 Off-Ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	2	1	0	0	1	0	1

Volume Module:

Base Vol:	54	1083	0	0	1385	13	50	0	141	795	57	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	1083	0	0	1385	13	50	0	141	795	57	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	1083	0	0	1385	13	50	0	141	795	57	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1083	0	0	1385	13	50	0	141	795	57	96
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	1083	0	0	1385	13	50	0	141	795	57	96

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.91	0.89	1.00	0.89	0.95	0.95	0.95
Lanes:	1.00	3.00	1.00	0.00	2.97	0.03	0.26	0.00	0.74	1.79	0.11	1.10
Final Sat.:	1805	5187	1900	0	5134	48	442	0	1246	3218	204	1968

Capacity Analysis Module:

Vol/Sat:	0.03	0.21	0.00	0.00	0.27	0.27	0.11	0.00	0.11	0.25	0.28	0.05
Crit Moves:	****			****			****		****	****		
Green/Cycle:	0.04	0.43	0.00	0.00	0.39	0.39	0.16	0.00	0.16	0.40	0.40	0.40
Volume/Cap:	0.69	0.48	0.00	0.00	0.69	0.69	0.69	0.00	0.69	0.61	0.69	0.12
Delay/Veh:	70.7	20.5	0.0	0.0	26.6	26.6	46.8	0.0	46.8	24.3	26.2	18.7
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:	70.7	20.5	0.0	0.0	26.6	26.6	46.8	0.0	46.8	24.3	26.2	18.7
LOS by Move:	E	C	A	A	C	C	D	A	D	C	C	B
HCM2kAvgQ:	3	9	0	0	14	14	7	0	7	11	14	2

Note: Queue reported is the number of cars per lane.

Existing Year 2013  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #11 Trask Ave and EB SR-22 On-Ramp
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.391
Loss Time (sec):      0            Average Delay (sec/veh):          9.9
Optimal Cycle:        37            Level Of Service:          A
*****

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Street Name:	Eastbound SR-22 On-Ramp						Trask Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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:	0	0	0	0	0	0	2	0	1	0	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	611	743	0	0	655	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:	0	0	0	0	0	0	611	743	0	0	655	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:	0	0	0	0	0	0	611	743	0	0	655	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	611	743	0	0	655	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
Final Volume:	0	0	0	0	0	0	611	743	0	0	655	124

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	0.95	0.85
Lanes:	0.00	0.00	1.00	0.00	0.00	0.00	2.00	1.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	1900	0	0	0	3502	1900	0	1900	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.39	0.00	0.00	0.18	0.08
Crit Moves:								****			****	
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.49	1.00	0.00	0.00	0.51	0.51
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.39	0.00	0.00	0.36	0.15
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.1	0.0	0.0	14.8	13.1
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:	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.1	0.0	0.0	14.8	13.1
LOS by Move:	A	A	A	A	A	A	B	A	A	A	B	B
HCM2kAvgQ:	0	0	0	0	0	0	6	1	0	0	6	2

Note: Queue reported is the number of cars per lane.



Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #12 Harbor Blvd and Trask Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.859
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	161	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Trask Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	55	782	350	345	1684	109	85	606	446	99	215	594
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	782	350	345	1684	109	85	606	446	99	215	594
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	782	350	345	1684	109	85	606	446	99	215	594
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	782	350	345	1684	109	85	606	446	99	215	594
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	782	350	345	1684	109	85	606	446	99	215	594

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.15	0.22	0.22	0.33	0.07	0.05	0.18	0.28	0.06	0.06	0.37
Crit Moves:			****	****			****					****

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #13 Harbor Blvd and Westminster Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.682
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	B

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Street Name:	Harbor Blvd						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	3	0	1	1	0	2	1	0

Volume Module:

Base Vol:	163	1162	236	168	1460	66	121	667	19	251	541	189
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:	163	1162	236	168	1460	66	121	667	19	251	541	189
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:	163	1162	236	168	1460	66	121	667	19	251	541	189
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	1162	236	168	1460	66	121	667	19	251	541	189
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:	163	1162	236	168	1460	66	121	667	19	251	541	189

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	2.49	0.51	1.00	3.00	1.00	1.00	2.92	0.08	1.00	3.00	1.00
Final Sat.:	1600	4190	810	1600	5100	1600	1600	4867	133	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.28	0.29	0.11	0.29	0.04	0.08	0.14	0.14	0.16	0.11	0.12
Crit Moves:	****			****			****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #14 Harbor Blvd and Hazard Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.631
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	50	Level Of Service:	B

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Street Name:	Harbor Blvd						Hazard Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	1	0	1	0

Volume Module:

Base Vol:	116	1210	6	22	1907	94	118	34	172	54	56	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	1210	6	22	1907	94	118	34	172	54	56	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	116	1210	6	22	1907	94	118	34	172	54	56	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	1210	6	22	1907	94	118	34	172	54	56	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	116	1210	6	22	1907	94	118	34	172	54	56	43

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	1.00	2.99	0.01	1.00	2.86	0.14	1.00	1.00	1.00	1.00	0.57	0.43
Final Sat.:	1600	4976	24	1600	4775	225	1600	1700	1600	1600	905	695

Capacity Analysis Module:

Vol/Sat:	0.07	0.24	0.25	0.01	0.40	0.42	0.07	0.02	0.11	0.03	0.06	0.06
Crit Moves:	****					****			****	****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #15 Harbor Blvd and 5th St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.669
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	B

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Street Name:	Harbor Blvd						5th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	0	1	0	1

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Volume Module:

Base Vol:	38	1100	64	111	1952	54	102	162	85	116	124	146
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	1100	64	111	1952	54	102	162	85	116	124	146
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	1100	64	111	1952	54	102	162	85	116	124	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	1100	64	111	1952	54	102	162	85	116	124	146
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	1100	64	111	1952	54	102	162	85	116	124	146

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	1.00	2.84	0.16	1.00	2.92	0.08	1.00	0.66	0.34	1.00	1.00	1.00
Final Sat.:	1600	4736	264	1600	4871	129	1600	1049	551	1600	1700	1600

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Capacity Analysis Module:

Vol/Sat:	0.02	0.23	0.24	0.07	0.40	0.42	0.06	0.15	0.15	0.07	0.07	0.09
Crit Moves:	****					****	****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #16 Harbor Blvd and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	86	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	3	0	1	2	0	2	1	0

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Volume Module:

Base Vol:	134	966	137	153	1985	96	152	775	147	223	593	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:	134	966	137	153	1985	96	152	775	147	223	593	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:	134	966	137	153	1985	96	152	775	147	223	593	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	966	137	153	1985	96	152	775	147	223	593	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:	134	966	137	153	1985	96	152	775	147	223	593	88

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.63	0.37	1.00	3.00	1.00	2.00	2.52	0.48	2.00	2.61	0.39
Final Sat.:	1600	4404	596	1600	5100	1600	3200	4235	765	3200	4380	620

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Capacity Analysis Module:

Vol/Sat:	0.08	0.22	0.23	0.10	0.39	0.06	0.05	0.18	0.19	0.07	0.14	0.14
Crit Moves:	****			****			****	****				

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #17 Harbor Blvd and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	86	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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:	2	0	3	0	1	2	0	2	1	0	1	0	1	1	0

Volume Module:

Base Vol:	127	891	62	155	1970	69	169	403	140	161	352	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	891	62	155	1970	69	169	403	140	161	352	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	891	62	155	1970	69	169	403	140	161	352	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	891	62	155	1970	69	169	403	140	161	352	134
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	891	62	155	1970	69	169	403	140	161	352	134

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	2.00	3.00	1.00	2.00	2.90	0.10	1.00	1.48	0.52	1.00	1.45	0.55
Final Sat.:	3200	5100	1600	3200	4838	162	1600	2475	825	1600	2418	882

Capacity Analysis Module:

Vol/Sat:	0.04	0.17	0.04	0.05	0.41	0.42	0.11	0.16	0.17	0.10	0.15	0.15
Crit Moves:	****					****			****	****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #18 Harbor Blvd and Edinger Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.674
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	B

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Street Name:	Harbor Blvd						Edinger Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	3	0	1	2	0	3	0	1	2	0	2	1	0	2	0	3	0	1

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Volume Module:

Base Vol:	97	782	82	235	2070	59	92	651	208	188	387	154
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:	97	782	82	235	2070	59	92	651	208	188	387	154
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	97	782	82	235	2070	59	92	651	208	188	387	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	782	82	235	2070	59	92	651	208	188	387	154
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	97	782	82	235	2070	59	92	651	208	188	387	154

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.27	0.73	2.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	3200	3838	1162	3200	5100	1600

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Capacity Analysis Module:

Vol/Sat:	0.03	0.15	0.05	0.07	0.41	0.04	0.03	0.17	0.18	0.06	0.08	0.10
Crit Moves:	****			****			****	****				

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #19 Harbor Blvd and Warner Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.674
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Warner Ave					
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:	2	0	2	1	0	0	2	0	3	0	1	1

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Volume Module:

Base Vol:	80	639	129	397	2045	131	112	1042	286	139	469	96
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	639	129	397	2045	131	112	1042	286	139	469	96
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	639	129	397	2045	131	112	1042	286	139	469	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	639	129	397	2045	131	112	1042	286	139	469	96
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	639	129	397	2045	131	112	1042	286	139	469	96

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.50	0.50	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	4194	806	3200	5100	1600	3200	5100	1600	3200	5100	1600

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Capacity Analysis Module:

Vol/Sat:	0.03	0.15	0.16	0.12	0.40	0.08	0.04	0.20	0.18	0.04	0.09	0.06
Crit Moves:	****				****			****		****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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*****
Intersection #20 Harbor Blvd and Segerstrom Ave
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.758
Loss Time (sec):      0           Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        94          Level Of Service:                  C
*****

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Street Name:	Harbor Blvd						Segerstrom Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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:	2	0	2	1	0	2	1	0	1	1	0	2

Volume Module:

Base Vol:	93	712	69	149	2098	112	81	448	252	79	299	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:	93	712	69	149	2098	112	81	448	252	79	299	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:	93	712	69	149	2098	112	81	448	252	79	299	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	712	69	149	2098	112	81	448	252	79	299	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:	93	712	69	149	2098	112	81	448	252	79	299	94

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	2.73	0.27	1.00	2.85	0.15	1.00	1.28	0.72	1.00	2.00	1.00
Final Sat.:	3200	4576	424	1600	4757	243	1600	2148	1152	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.16	0.16	0.09	0.44	0.46	0.05	0.21	0.22	0.05	0.09	0.06
Crit Moves:	****					****			****	****		

Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #21 Harbor Blvd and MacArthur Blvd

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.736
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	86	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						MacArthur Ave					
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:	2	0	3	0	1	1	2	0	3	0	1	1

Volume Module:

Base Vol:	112	882	93	385	2147	154	111	997	311	135	365	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:	112	882	93	385	2147	154	111	997	311	135	365	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:	112	882	93	385	2147	154	111	997	311	135	365	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	882	93	385	2147	154	111	997	311	135	365	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:	112	882	93	385	2147	154	111	997	311	135	365	116

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	1600	5100	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.17	0.06	0.12	0.42	0.10	0.07	0.20	0.19	0.08	0.07	0.07
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #22 Harbor Blvd and Sunflower Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.586
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						Sunflower Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	1	0	0	2	0	3	0	1	0
	2	0	2	1	0	0	1	0	1	1	1	0

Volume Module:

Base Vol:	290	1265	135	247	2057	62	9	58	29	101	126	86
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:	290	1265	135	247	2057	62	9	58	29	101	126	86
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:	290	1265	135	247	2057	62	9	58	29	101	126	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	290	1265	135	247	2057	62	9	58	29	101	126	86
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:	290	1265	135	247	2057	62	9	58	29	101	126	86

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	2.00	2.71	0.29	2.00	3.00	1.00	1.00	1.33	0.67	1.00	1.17	0.83
Final Sat.:	3200	4537	463	3200	5100	1600	1600	2233	1067	1600	1971	1328

Capacity Analysis Module:

Vol/Sat:	0.09	0.28	0.29	0.08	0.40	0.04	0.01	0.03	0.03	0.06	0.06	0.06
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #23 Harbor Blvd and South Coast Drive

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.466
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						South Coast Drive																		
Approach:	North Bound			South Bound			East Bound			West Bound															
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Protected						Protected						Protected												
Rights:	Include						Include						Include												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	3	1	1	2	0	4	0	1	1	0	0	1	1	2	0	2	0	1	2	0	2	0	1

Volume Module:

Base Vol:	246	1757	231	72	1972	60	9	29	195	93	134	37
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:	246	1757	231	72	1972	60	9	29	195	93	134	37
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:	246	1757	231	72	1972	60	9	29	195	93	134	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1757	231	72	1972	60	9	29	195	93	134	37
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:	246	1757	231	72	1972	60	9	29	195	93	134	37

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	0.26	1.74	2.00	2.00	1.00
Final Sat.:	3200	6800	1600	3200	6800	1600	1600	414	2786	3200	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.08	0.26	0.14	0.02	0.29	0.04	0.01	0.07	0.07	0.03	0.04	0.02
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Existing Year 2013  
With Project

Level Of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #24 Harbor Blvd and NB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.641  
Loss Time (sec): 0 Average Delay (sec/veh): 17.4  
Optimal Cycle: 64 Level Of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound I-405 Off Ramp					
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:	0	0	4	0	0	4	0	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	1383	0	0	2269	0	0	0	0	493	0	865
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	1383	0	0	2269	0	0	0	0	493	0	865
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1383	0	0	2269	0	0	0	0	493	0	865
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1383	0	0	2269	0	0	0	0	493	0	865
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1383	0	0	2269	0	0	0	0	493	0	865

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.89	1.00	0.89
Lanes:	0.00	4.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	1.36	0.00	1.64
Final Sat.:	0	6916	0	0	6916	0	0	0	0	2299	0	2761

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.20	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.21	0.00	0.31
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.51	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.49	0.00	0.49
Volume/Cap:	0.00	0.39	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.44	0.00	0.64
Delay/Veh:	0.0	15.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	16.8	0.0	19.7
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:	0.0	15.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	16.8	0.0	19.7
LOS by Move:	A	B	A	A	B	A	A	A	A	B	A	B
HCM2kAvgQ:	0	7	0	0	14	0	0	0	0	7	0	13

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #25 Harbor Blvd and SB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.577  
Loss Time (sec): 0 Average Delay (sec/veh): 18.5  
Optimal Cycle: 54 Level of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Eastbound I-405 Off-Ramp					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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:	0	0	3	0	0	4	0	0	0	1	0	0

Volume Module:												
Base Vol:	0	1396	0	0	1736	0	383	0	498	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	1396	0	0	1736	0	383	0	498	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1396	0	0	1736	0	383	0	498	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1396	0	0	1736	0	383	0	498	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1396	0	0	1736	0	383	0	498	0	0	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	4.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	6916	0	3502	0	1615	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.00	0.00	0.25	0.00	0.11	0.00	0.31	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.47	0.00	0.00	0.47	0.00	0.53	0.00	0.53	0.00	0.00	0.00
Volume/Cap:	0.00	0.58	0.00	0.00	0.54	0.00	0.20	0.00	0.58	0.00	0.00	0.00
Delay/Veh:	0.0	19.9	0.0	0.0	19.2	0.0	12.2	0.0	16.7	0.0	0.0	0.0
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:	0.0	19.9	0.0	0.0	19.2	0.0	12.2	0.0	16.7	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B	A	B	A	B	A	A	A
HCM2kAvgQ:	0	12	0	0	11	0	3	0	11	0	0	0

Note: Queue reported is the number of cars per lane.  
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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #26 Fairview St and 17th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.767
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street						17th Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	2	0	1	2	0	2	0	1	1	0	3	0	1	1	0	2	1	0

Volume Module:

Base Vol:	153	953	230	467	1009	126	234	1083	189	206	437	242
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:	153	953	230	467	1009	126	234	1083	189	206	437	242
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:	153	953	230	467	1009	126	234	1083	189	206	437	242
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	953	230	467	1009	126	234	1083	189	206	437	242
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:	153	953	230	467	1009	126	234	1083	189	206	437	242

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	3400	1600	3200	3400	1600	1600	5100	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.28	0.14	0.15	0.30	0.08	0.15	0.21	0.12	0.13	0.13	0.15
Crit Moves:	****			****			****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #27 Fairview St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.829
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	133	Level Of Service:	D

\*\*\*\*\*

Street Name:	Fairview Street						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	183	1392	230	173	1441	81	209	1131	206	190	537	161
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:	183	1392	230	173	1441	81	209	1131	206	190	537	161
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:	183	1392	230	173	1441	81	209	1131	206	190	537	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	1392	230	173	1441	81	209	1131	206	190	537	161
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:	183	1392	230	173	1441	81	209	1131	206	190	537	161

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	2.84	0.16	1.00	2.54	0.46	1.00	2.31	0.69
Final Sat.:	1600	5100	1600	1600	4745	255	1600	4260	740	1600	3893	1107

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.14	0.11	0.30	0.32	0.13	0.27	0.28	0.12	0.14	0.15
Crit Moves:	****					****			****	****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Fairview St and McFadden Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.703
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	1	1	0

Volume Module:

Base Vol:	88	1162	114	142	1661	104	225	521	121	194	458	61
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	1162	114	142	1661	104	225	521	121	194	458	61
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	1162	114	142	1661	104	225	521	121	194	458	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	1162	114	142	1661	104	225	521	121	194	458	61
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	1162	114	142	1661	104	225	521	121	194	458	61

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	1.62	0.38	1.00	1.76	0.24
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	2697	603	1600	2924	376

Capacity Analysis Module:

Vol/Sat:	0.06	0.23	0.07	0.09	0.33	0.07	0.14	0.19	0.20	0.12	0.16	0.16
Crit Moves:	****			****			****	****				

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #29 Fairview St and Edinger Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.740
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview St						Edinger Ave					
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:	2	0	2	1	0		2	0	2	1	0	

Volume Module:

Base Vol:	201	1035	110	208	1648	105	274	692	200	405	585	158
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	1035	110	208	1648	105	274	692	200	405	585	158
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	1035	110	208	1648	105	274	692	200	405	585	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	1035	110	208	1648	105	274	692	200	405	585	158
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	1035	110	208	1648	105	274	692	200	405	585	158

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	2.00	2.71	0.29	2.00	2.82	0.18	2.00	2.33	0.67	2.00	2.36	0.64
Final Sat.:	3200	4539	461	3200	4712	288	3200	3924	1076	3200	3979	1021

Capacity Analysis Module:

Vol/Sat:	0.06	0.23	0.24	0.07	0.35	0.37	0.09	0.18	0.19	0.13	0.15	0.15
Crit Moves:	****					****			****	****		

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## **TRAFFIX WORKSHEETS**

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YEAR 2013 – WITH PROJECT – PM

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 Existing Year 2013  
 With Project  
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Impact Analysis Report  
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Euclid St and Westminster Ave	D	xxxxxx 0.830	D	xxxxxx 0.830	+ 0.000 V/C
# 2 Euclid St and McFadden Ave	C	xxxxxx 0.790	C	xxxxxx 0.790	+ 0.000 V/C
# 3 Euclid St and Edinger Ave	C	xxxxxx 0.755	C	xxxxxx 0.755	+ 0.000 V/C
# 4 Newhope St and Westminster Ave	D	xxxxxx 0.853	D	xxxxxx 0.853	+ 0.000 V/C
# 5 Newhope St and Hazard Ave	A	xxxxxx 0.573	A	xxxxxx 0.573	+ 0.000 V/C
# 6 Newhope St and 1st St	D	xxxxxx 0.828	D	xxxxxx 0.828	+ 0.000 V/C
# 7 Newhope St and McFadden Ave	D	xxxxxx 0.807	D	xxxxxx 0.807	+ 0.000 V/C
# 8 Newhope St and Edinger Ave	C	xxxxxx 0.783	C	xxxxxx 0.783	+ 0.000 V/C
# 9 Harbor Blvd and Garden Grove B	B	xxxxxx 0.689	B	xxxxxx 0.689	+ 0.000 V/C
# 10 Harbor Blvd and WB SR-22 Off-R	C	23.0 0.609	C	23.0 0.609	+ 0.000 D/V
# 11 Trask Ave and EB SR-22 On-Ramp	A	2.1 0.399	A	2.1 0.399	+ 0.000 D/V
# 12 Harbor Blvd and Trask Ave	B	xxxxxx 0.687	B	xxxxxx 0.687	+ 0.000 V/C
# 13 Harbor Blvd and Westminster Av	C	xxxxxx 0.775	C	xxxxxx 0.775	+ 0.000 V/C
# 14 Harbor Blvd and Hazard Ave	A	xxxxxx 0.559	A	xxxxxx 0.559	+ 0.000 V/C
# 15 Harbor Blvd and 5th St	B	xxxxxx 0.671	B	xxxxxx 0.671	+ 0.000 V/C
# 16 Harbor Blvd and 1st St	D	xxxxxx 0.803	D	xxxxxx 0.803	+ 0.000 V/C
# 17 Harbor Blvd and McFadden Ave	C	xxxxxx 0.738	C	xxxxxx 0.738	+ 0.000 V/C
# 18 Harbor Blvd and Edinger Ave	C	xxxxxx 0.708	C	xxxxxx 0.708	+ 0.000 V/C
# 19 Harbor Blvd and Warner Ave	C	xxxxxx 0.735	C	xxxxxx 0.735	+ 0.000 V/C
# 20 Harbor Blvd and Segerstrom Ave	D	xxxxxx 0.806	D	xxxxxx 0.806	+ 0.000 V/C
# 21 Harbor Blvd and MacArthur Blvd	C	xxxxxx 0.788	C	xxxxxx 0.788	+ 0.000 V/C
# 22 Harbor Blvd and Sunflower Ave	C	xxxxxx 0.794	C	xxxxxx 0.794	+ 0.000 V/C
# 23 Harbor Blvd and South Coast Dr	A	xxxxxx 0.594	A	xxxxxx 0.594	+ 0.000 V/C
# 24 Harbor Blvd and NB I-405 Off-R	C	20.3 0.758	C	20.3 0.758	+ 0.000 D/V

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Existing Year 2013  
With Project  
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Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 25 Harbor Blvd and SB I-405 Off-R	C	28.0	0.867	C 28.0	0.867	+ 0.000	D/V
# 26 Fairview St and 17th St	D	xxxxx	0.866	D xxxxx	0.866	+ 0.000	V/C
# 27 Fairview St and 1st St	D	xxxxx	0.847	D xxxxx	0.847	+ 0.000	V/C
# 28 Fairview St and McFadden Ave	C	xxxxx	0.711	C xxxxx	0.711	+ 0.000	V/C
# 29 Fairview St and Edinger Ave	B	xxxxx	0.661	B xxxxx	0.661	+ 0.000	V/C

Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #1 Euclid St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.830
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	134	Level Of Service:	D

\*\*\*\*\*

Street Name:	Euclid St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	0	3	0	1

Volume Module:

Base Vol:	315	1521	137	186	1475	120	187	666	255	175	685	156
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:	315	1521	137	186	1475	120	187	666	255	175	685	156
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:	315	1521	137	186	1475	120	187	666	255	175	685	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	1521	137	186	1475	120	187	666	255	175	685	156
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:	315	1521	137	186	1475	120	187	666	255	175	685	156

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.75	0.25	1.00	2.77	0.23	1.00	2.17	0.83	1.00	3.00	1.00
Final Sat.:	1600	4603	397	1600	4639	361	1600	3671	1329	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.20	0.33	0.35	0.12	0.32	0.33	0.12	0.18	0.19	0.11	0.13	0.10
Crit Moves:	****					****		****	****			

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #2 Euclid St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	89	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						McFadden Ave					
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			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	0	1	0	1	1	0	1

Volume Module:

Base Vol:	187	1543	87	104	1100	137	99	417	183	59	456	215
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:	187	1543	87	104	1100	137	99	417	183	59	456	215
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:	187	1543	87	104	1100	137	99	417	183	59	456	215
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	1543	87	104	1100	137	99	417	183	59	456	215
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:	187	1543	87	104	1100	137	99	417	183	59	456	215

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	1.00	2.00	1.00	1.00	2.67	0.33	1.00	1.39	0.61	1.00	1.36	0.64
Final Sat.:	1600	3400	1600	1600	4468	532	1600	2324	976	1600	2275	1025

Capacity Analysis Module:

Vol/Sat:	0.12	0.45	0.05	0.07	0.25	0.26	0.06	0.18	0.19	0.04	0.20	0.21
Crit Moves:	****			****			****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #3 Euclid St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.755
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	1	0	1

Volume Module:

Base Vol:	448	1507	119	174	844	200	196	654	176	83	813	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:	448	1507	119	174	844	200	196	654	176	83	813	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:	448	1507	119	174	844	200	196	654	176	83	813	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	448	1507	119	174	844	200	196	654	176	83	813	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:	448	1507	119	174	844	200	196	654	176	83	813	162

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.78	0.22	2.00	2.43	0.57	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	4649	351	3200	4080	920	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.14	0.32	0.34	0.05	0.21	0.22	0.12	0.19	0.11	0.05	0.24	0.10
Crit Moves:			****	****			****				****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #4 Newhope St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.853
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	155	Level Of Service:	D

\*\*\*\*\*

Street Name:	Newhope St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit			Prot+Permit			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

Volume Module:

Base Vol:	115	1217	199	112	827	90	206	706	182	227	741	276
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:	115	1217	199	112	827	90	206	706	182	227	741	276
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:	115	1217	199	112	827	90	206	706	182	227	741	276
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	1217	199	112	827	90	206	706	182	227	741	276
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:	115	1217	199	112	827	90	206	706	182	227	741	276

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	1.72	0.28	1.00	1.80	0.20	1.00	2.39	0.61	1.00	2.19	0.81
Final Sat.:	1600	2850	450	1600	2986	314	1600	4016	984	1600	3697	1303

Capacity Analysis Module:

Vol/Sat:	0.07	0.43	0.44	0.07	0.28	0.29	0.13	0.18	0.19	0.14	0.20	0.21
Crit Moves:			****	****			****					****

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #5 Newhope St and Hazard Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.573
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

\*\*\*\*\*

Street Name:	Newhope St						Hazard Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	1	0

Volume Module:

Base Vol:	121	1386	64	30	774	99	69	170	87	33	129	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	1386	64	30	774	99	69	170	87	33	129	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	121	1386	64	30	774	99	69	170	87	33	129	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	1386	64	30	774	99	69	170	87	33	129	64
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	1386	64	30	774	99	69	170	87	33	129	64

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.91	0.09	1.00	1.77	0.23	1.00	1.32	0.68	1.00	1.34	0.66
Final Sat.:	1600	3159	141	1600	2937	363	1600	2217	1083	1600	2239	1061

Capacity Analysis Module:

Vol/Sat:	0.08	0.44	0.45	0.02	0.26	0.27	0.04	0.08	0.08	0.02	0.06	0.06
Crit Moves:			****	****			****				****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #6 Newhope St and 1st St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.828
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	133	Level Of Service:	D

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Street Name:	Newhope St						1st Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			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

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Volume Module:

Base Vol:	150	1027	207	157	687	132	188	774	145	176	872	217
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	1027	207	157	687	132	188	774	145	176	872	217
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	1027	207	157	687	132	188	774	145	176	872	217
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	1027	207	157	687	132	188	774	145	176	872	217
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	1027	207	157	687	132	188	774	145	176	872	217

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.66	0.34	1.00	1.68	0.32	1.00	2.53	0.47	1.00	2.40	0.60
Final Sat.:	1600	2763	537	1600	2784	516	1600	4243	757	1600	4044	956

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Capacity Analysis Module:

Vol/Sat:	0.09	0.37	0.39	0.10	0.25	0.26	0.12	0.18	0.19	0.11	0.22	0.23
Crit Moves:			****	****			****					****

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #7 Newhope St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.807
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	118	Level Of Service:	D

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Street Name:	Newhope St						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	1	0

Volume Module:

Base Vol:	96	1214	166	142	645	105	82	497	65	118	518	238
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	1214	166	142	645	105	82	497	65	118	518	238
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	1214	166	142	645	105	82	497	65	118	518	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	1214	166	142	645	105	82	497	65	118	518	238
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	1214	166	142	645	105	82	497	65	118	518	238

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	1.00	1.76	0.24	1.00	1.72	0.28	1.00	1.77	0.23	1.00	1.37	0.63
Final Sat.:	1600	2915	385	1600	2852	448	1600	2930	370	1600	2293	1007

Capacity Analysis Module:

Vol/Sat:	0.06	0.42	0.43	0.09	0.23	0.23	0.05	0.17	0.18	0.07	0.23	0.24
Crit Moves:			****	****			****					****

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #8 Newhope St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.783
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	105	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						Edinger Ave					
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	1	0	2	1	0	2

Volume Module:

Base Vol:	111	1109	149	138	559	60	94	746	107	135	752	320
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:	111	1109	149	138	559	60	94	746	107	135	752	320
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:	111	1109	149	138	559	60	94	746	107	135	752	320
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	1109	149	138	559	60	94	746	107	135	752	320
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:	111	1109	149	138	559	60	94	746	107	135	752	320

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	1.76	0.24	1.00	1.81	0.19	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2921	379	1600	2990	310	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.38	0.39	0.09	0.19	0.19	0.06	0.22	0.07	0.08	0.22	0.20
Crit Moves:			****	****			****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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*****
Intersection #9 Harbor Blvd and Garden Grove Blvd
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.689
Loss Time (sec):      0           Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        73          Level Of Service:                B
*****

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Street Name:	Harbor Blvd						Garden Grove Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	2	0	2	1	0	2

Volume Module:

Base Vol:	326	1149	176	132	926	192	376	757	236	309	741	91
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:	326	1149	176	132	926	192	376	757	236	309	741	91
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:	326	1149	176	132	926	192	376	757	236	309	741	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	326	1149	176	132	926	192	376	757	236	309	741	91
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:	326	1149	176	132	926	192	376	757	236	309	741	91

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	2.29	0.71	2.00	2.67	0.33
Final Sat.:	1600	5100	1600	1600	5100	1600	3200	3859	1141	3200	4475	525

Capacity Analysis Module:

Vol/Sat:	0.20	0.23	0.11	0.08	0.18	0.12	0.12	0.20	0.21	0.10	0.17	0.17
Crit Moves:	****				****				****	****		

Existing Year 2013  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #10 Harbor Blvd and WB SR-22 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.609  
Loss Time (sec): 0 Average Delay (sec/veh): 23.0  
Optimal Cycle: 58 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound SR-22 Off-Ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	2	1	0	0	1	0	1

Volume Module:

Base Vol:	106	942	0	0	1283	38	70	0	83	451	89	108
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:	106	942	0	0	1283	38	70	0	83	451	89	108
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:	106	942	0	0	1283	38	70	0	83	451	89	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	942	0	0	1283	38	70	0	83	451	89	108
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:	106	942	0	0	1283	38	70	0	83	451	89	108

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.94	0.94	0.94
Lanes:	1.00	3.00	1.00	0.00	2.91	0.09	0.46	0.00	0.54	1.61	0.24	1.15
Final Sat.:	1805	5187	1900	0	5018	149	788	0	934	2885	432	2052

Capacity Analysis Module:

Vol/Sat:	0.06	0.18	0.00	0.00	0.26	0.26	0.09	0.00	0.09	0.16	0.21	0.05
Crit Moves:	****				****		****				****	
Green/Cycle:	0.10	0.52	0.00	0.00	0.42	0.42	0.15	0.00	0.15	0.34	0.34	0.34
Volume/Cap:	0.61	0.35	0.00	0.00	0.61	0.61	0.61	0.00	0.61	0.46	0.61	0.16
Delay/Veh:	49.5	14.4	0.0	0.0	23.1	23.1	44.3	0.0	44.3	26.2	28.6	23.1
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:	49.5	14.4	0.0	0.0	23.1	23.1	44.3	0.0	44.3	26.2	28.6	23.1
LOS by Move:	D	B	A	A	C	C	D	A	D	C	C	C
HCM2kAvgQ:	4	6	0	0	12	12	5	0	5	7	10	2

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #11 Trask Ave and EB SR-22 On-Ramp
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.399
Loss Time (sec):      0            Average Delay (sec/veh):        2.1
Optimal Cycle:        38            Level of Service:                A
*****

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Street Name:	Eastbound SR-22 On-Ramp						Trask Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:												
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:	0	0	0	0	0	0	2	0	1	0	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	653	759	0	0	38	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	653	759	0	0	38	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	653	759	0	0	38	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	653	759	0	0	38	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	0	0	0	653	759	0	0	38	26

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	0.95	0.85
Lanes:	0.00	0.00	1.00	0.00	0.00	0.00	2.00	1.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	1900	0	0	0	3502	1900	0	1900	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.40	0.00	0.00	0.01	0.02
Crit Moves:								****			****	
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.00	0.00	0.00	0.08	0.08
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40	0.00	0.00	0.13	0.20
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	43.0	43.8
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:	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	43.0	43.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	D	D
HCM2kAvgQ:	0	0	0	0	0	0	1	1	0	0	1	1

Note: Queue reported is the number of cars per lane.



Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #12 Harbor Blvd and Trask Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.687
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd				Trask Ave					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	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	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	3	0	1	1	0	3	0	1

Volume Module:

Base Vol:	46	901	214	276	1066	80	173	608	467	74	192	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	901	214	276	1066	80	173	608	467	74	192	172
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	901	214	276	1066	80	173	608	467	74	192	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	901	214	276	1066	80	173	608	467	74	192	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	901	214	276	1066	80	173	608	467	74	192	172

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.18	0.13	0.17	0.21	0.05	0.11	0.18	0.29	0.05	0.06	0.11
Crit Moves:	****		****		****		****		****		****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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*****
Intersection #13 Harbor Blvd and Westminster Ave
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.775
Loss Time (sec):      0           Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        101          Level Of Service:                C
*****

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Street Name:	Harbor Blvd						Westminster Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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	3	1	0	2	1	0	3

Volume Module:

Base Vol:	250	1346	261	244	1361	172	153	667	37	225	803	178
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:	250	1346	261	244	1361	172	153	667	37	225	803	178
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:	250	1346	261	244	1361	172	153	667	37	225	803	178
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	1346	261	244	1361	172	153	667	37	225	803	178
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:	250	1346	261	244	1361	172	153	667	37	225	803	178

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	2.51	0.49	1.00	3.00	1.00	1.00	2.84	0.16	1.00	3.00	1.00
Final Sat.:	1600	4220	780	1600	5100	1600	1600	4748	252	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.16	0.32	0.33	0.15	0.27	0.11	0.10	0.14	0.15	0.14	0.16	0.11
Crit Moves:			****	****					****	****		

Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #14 Harbor Blvd and Hazard Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.559
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						Hazard Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	1	0	1	0

Volume Module:

Base Vol:	170	1835	48	46	1543	121	52	47	123	30	86	31
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	1835	48	46	1543	121	52	47	123	30	86	31
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	1835	48	46	1543	121	52	47	123	30	86	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	1835	48	46	1543	121	52	47	123	30	86	31
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	1835	48	46	1543	121	52	47	123	30	86	31

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	1.00	2.92	0.08	1.00	2.78	0.22	1.00	1.00	1.00	1.00	0.74	0.26
Final Sat.:	1600	4878	122	1600	4651	349	1600	1700	1600	1600	1176	424

Capacity Analysis Module:

Vol/Sat:	0.11	0.38	0.39	0.03	0.33	0.35	0.03	0.03	0.08	0.02	0.07	0.07
Crit Moves:	****					****	****				****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #15 Harbor Blvd and 5th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.671
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						5th Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	0	0	1	0

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Volume Module:

Base Vol:	103	1607	107	147	1327	126	98	154	76	113	273	161
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	1607	107	147	1327	126	98	154	76	113	273	161
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	1607	107	147	1327	126	98	154	76	113	273	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	1607	107	147	1327	126	98	154	76	113	273	161
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	1607	107	147	1327	126	98	154	76	113	273	161

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	1.00	2.81	0.19	1.00	2.74	0.26	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1600	4700	300	1600	4584	416	1600	1071	529	1600	1700	1600

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Capacity Analysis Module:

Vol/Sat:	0.06	0.34	0.36	0.09	0.29	0.30	0.06	0.14	0.14	0.07	0.16	0.10
Crit Moves:			****	****			****				****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #16 Harbor Blvd and 1st St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.803
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	116	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	3	0	1	2	0	2	1	0

Volume Module:

Base Vol:	246	1582	136	246	1130	125	170	776	152	314	1012	115
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:	246	1582	136	246	1130	125	170	776	152	314	1012	115
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:	246	1582	136	246	1130	125	170	776	152	314	1012	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1582	136	246	1130	125	170	776	152	314	1012	115
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:	246	1582	136	246	1130	125	170	776	152	314	1012	115

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.76	0.24	1.00	3.00	1.00	2.00	2.51	0.49	2.00	2.69	0.31
Final Sat.:	1600	4620	380	1600	5100	1600	3200	4214	786	3200	4510	490

Capacity Analysis Module:

Vol/Sat:	0.15	0.34	0.36	0.15	0.22	0.08	0.05	0.18	0.19	0.10	0.22	0.23
Crit Moves:			****	****					****	****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #17 Harbor Blvd and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.738
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	87	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						McFadden Ave					
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:	2	0	3	0	1	2	0	2	1	0	1	1

Volume Module:

Base Vol:	259	1707	120	218	1245	111	233	521	97	175	480	125
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:	259	1707	120	218	1245	111	233	521	97	175	480	125
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:	259	1707	120	218	1245	111	233	521	97	175	480	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	1707	120	218	1245	111	233	521	97	175	480	125
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:	259	1707	120	218	1245	111	233	521	97	175	480	125

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	2.00	3.00	1.00	2.00	2.75	0.25	1.00	1.69	0.31	1.00	1.59	0.41
Final Sat.:	3200	5100	1600	3200	4607	393	1600	2798	502	1600	2639	661

Capacity Analysis Module:

Vol/Sat:	0.08	0.33	0.08	0.07	0.27	0.28	0.15	0.19	0.19	0.11	0.18	0.19
Crit Moves:	****			****			****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #18 Harbor Blvd and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.708
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Edinger Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	3	0	1	2	0	3	0	1	2	0	2	1	0	2	0	3	0	1

Volume Module:

Base Vol:	213	1957	108	269	1078	90	170	764	183	138	650	101
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	1957	108	269	1078	90	170	764	183	138	650	101
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	1957	108	269	1078	90	170	764	183	138	650	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	213	1957	108	269	1078	90	170	764	183	138	650	101
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	1957	108	269	1078	90	170	764	183	138	650	101

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.42	0.58	2.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	3200	4072	928	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.38	0.07	0.08	0.21	0.06	0.05	0.19	0.20	0.04	0.13	0.06
Crit Moves:	****			****			****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #19 Harbor Blvd and Warner Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	86	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Warner Ave													
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	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	2	0	2	1	0	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:

Base Vol:	346	1850	152	192	727	95	107	634	196	120	1145	260
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:	346	1850	152	192	727	95	107	634	196	120	1145	260
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:	346	1850	152	192	727	95	107	634	196	120	1145	260
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	346	1850	152	192	727	95	107	634	196	120	1145	260
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:	346	1850	152	192	727	95	107	634	196	120	1145	260

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.77	0.23	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	4636	364	3200	5100	1600	3200	5100	1600	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.40	0.42	0.06	0.14	0.06	0.03	0.12	0.12	0.04	0.22	0.16
Crit Moves:			****	****			****				****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #20 Harbor Blvd and Segerstrom Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.806
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	117	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Segerstrom Ave					
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:	2	0	2	1	0	2	1	0	1	1	0	2

Volume Module:

Base Vol:	227	2071	62	84	961	72	96	421	171	71	846	272
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:	227	2071	62	84	961	72	96	421	171	71	846	272
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:	227	2071	62	84	961	72	96	421	171	71	846	272
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	227	2071	62	84	961	72	96	421	171	71	846	272
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:	227	2071	62	84	961	72	96	421	171	71	846	272

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	2.00	2.91	0.09	1.00	2.79	0.21	1.00	1.42	0.58	1.00	2.00	1.00
Final Sat.:	3200	4860	140	1600	4665	335	1600	2376	924	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.43	0.44	0.05	0.21	0.22	0.06	0.18	0.19	0.04	0.25	0.17
Crit Moves:			****	****			****				****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

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Intersection #21 Harbor Blvd and MacArthur Blvd

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.788
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						MacArthur Ave					
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:	2	0	3	0	1		2	0	3	0	1	

Volume Module:

Base Vol:	505	1818	142	167	1077	152	136	466	204	150	1499	337
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:	505	1818	142	167	1077	152	136	466	204	150	1499	337
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:	505	1818	142	167	1077	152	136	466	204	150	1499	337
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	505	1818	142	167	1077	152	136	466	204	150	1499	337
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:	505	1818	142	167	1077	152	136	466	204	150	1499	337

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	1600	5100	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.16	0.36	0.09	0.05	0.21	0.10	0.09	0.09	0.13	0.09	0.29	0.21
Crit Moves:	****			****			****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #22 Harbor Blvd and Sunflower Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.794
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	111	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Sunflower Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Split Phase			Split Phase					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	2	0	2	1	0	2	0	3	0	1	1	0	1	1	0

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Volume Module:

Base Vol:	73	2091	145	114	1525	44	69	162	156	365	361	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:	73	2091	145	114	1525	44	69	162	156	365	361	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:	73	2091	145	114	1525	44	69	162	156	365	361	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	2091	145	114	1525	44	69	162	156	365	361	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:	73	2091	145	114	1525	44	69	162	156	365	361	201

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	2.00	2.81	0.19	2.00	3.00	1.00	1.00	1.02	0.98	1.18	1.17	0.65
Final Sat.:	3200	4689	311	3200	5100	1600	1600	1730	1570	1891	1869	1040

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Capacity Analysis Module:

Vol/Sat:	0.02	0.45	0.47	0.04	0.30	0.03	0.04	0.09	0.10	0.19	0.19	0.19
Crit Moves:			****	****					****			****

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #23 Harbor Blvd and South Coast Drive

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.594
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						South Coast Drive													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	3	1	1	2	0	4	0	1	1	0	0	1	1	2	0	2	0	1

Volume Module:

Base Vol:	318	2076	209	105	1792	157	19	42	380	319	758	219
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:	318	2076	209	105	1792	157	19	42	380	319	758	219
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:	318	2076	209	105	1792	157	19	42	380	319	758	219
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	318	2076	209	105	1792	157	19	42	380	319	758	219
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:	318	2076	209	105	1792	157	19	42	380	319	758	219

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	0.20	1.80	2.00	2.00	1.00
Final Sat.:	3200	6800	1600	3200	6800	1600	1600	318	2882	3200	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.31	0.13	0.03	0.26	0.10	0.01	0.13	0.13	0.10	0.22	0.14
Crit Moves:	****			****			****			****		

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Existing Year 2013  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #24 Harbor Blvd and NB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.758  
Loss Time (sec): 0 Average Delay (sec/veh): 20.3  
Optimal Cycle: 94 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound I-405 Off Ramp					
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:	0	0	4	0	0	4	0	0	0	1	0	1

Volume Module:

Base Vol:	0	1676	0	0	2564	0	0	0	0	998	0	987
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	1676	0	0	2564	0	0	0	0	998	0	987
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1676	0	0	2564	0	0	0	0	998	0	987
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1676	0	0	2564	0	0	0	0	998	0	987
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1676	0	0	2564	0	0	0	0	998	0	987

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.90	1.00	0.90
Lanes:	0.00	4.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	1.50	0.00	1.50
Final Sat.:	0	6916	0	0	6916	0	0	0	0	2575	0	2566

Capacity Analysis Module:

Vol/Sat:	0.00	0.24	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.39	0.00	0.38
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.49	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Volume/Cap:	0.00	0.50	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.76	0.00	0.75
Delay/Veh:	0.0	17.4	0.0	0.0	21.8	0.0	0.0	0.0	0.0	20.8	0.0	20.7
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:	0.0	17.4	0.0	0.0	21.8	0.0	0.0	0.0	0.0	20.8	0.0	20.7
LOS by Move:	A	B	A	A	C	A	A	A	A	C	A	C
HCM2kAvgQ:	0	10	0	0	19	0	0	0	0	18	0	17

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #25 Harbor Blvd and SB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.867  
Loss Time (sec): 0 Average Delay (sec/veh): 28.0  
Optimal Cycle: 172 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Eastbound I-405 Off-Ramp					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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:	0	0	3	0	0	4	0	0	0	1	0	0

Volume Module:												
Base Vol:	0	1902	0	0	2578	0	204	0	799	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	1902	0	0	2578	0	204	0	799	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1902	0	0	2578	0	204	0	799	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1902	0	0	2578	0	204	0	799	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1902	0	0	2578	0	204	0	799	0	0	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	4.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	6916	0	3502	0	1615	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.37	0.00	0.00	0.37	0.00	0.06	0.00	0.49	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.43	0.00	0.00	0.43	0.00	0.57	0.00	0.57	0.00	0.00	0.00
Volume/Cap:	0.00	0.85	0.00	0.00	0.87	0.00	0.10	0.00	0.87	0.00	0.00	0.00
Delay/Veh:	0.0	29.1	0.0	0.0	28.9	0.0	9.8	0.0	27.1	0.0	0.0	0.0
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:	0.0	29.1	0.0	0.0	28.9	0.0	9.8	0.0	27.1	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	A	A	C	A	A	A
HCM2kAvgQ:	0	22	0	0	23	0	1	0	24	0	0	0

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #26 Fairview St and 17th St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.866
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	170	Level Of Service:	D

\*\*\*\*\*

Street Name:	Fairview Street						17th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	2	0	2	0	1	1

Volume Module:

Base Vol:	265	990	139	382	1022	124	270	765	166	181	977	399
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:	265	990	139	382	1022	124	270	765	166	181	977	399
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:	265	990	139	382	1022	124	270	765	166	181	977	399
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	265	990	139	382	1022	124	270	765	166	181	977	399
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:	265	990	139	382	1022	124	270	765	166	181	977	399

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.13	0.87
Final Sat.:	3200	3400	1600	3200	3400	1600	1600	5100	1600	1600	3608	1392

Capacity Analysis Module:

Vol/Sat:	0.08	0.29	0.09	0.12	0.30	0.08	0.17	0.15	0.10	0.11	0.27	0.29
Crit Moves:	****			****			****			****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #27 Fairview St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.847
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	149	Level Of Service:	D

\*\*\*\*\*

Street Name:	Fairview Street						1st Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0	2	1	0	1	0	2	1	0

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Volume Module:

Base Vol:	234	1433	145	164	1151	246	169	1080	214	224	1259	190
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:	234	1433	145	164	1151	246	169	1080	214	224	1259	190
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:	234	1433	145	164	1151	246	169	1080	214	224	1259	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	234	1433	145	164	1151	246	169	1080	214	224	1259	190
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:	234	1433	145	164	1151	246	169	1080	214	224	1259	190

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	2.47	0.53	1.00	2.50	0.50	1.00	2.61	0.39
Final Sat.:	1600	5100	1600	1600	4155	845	1600	4206	794	1600	4371	629

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Capacity Analysis Module:

Vol/Sat:	0.15	0.28	0.09	0.10	0.28	0.29	0.11	0.26	0.27	0.14	0.29	0.30
Crit Moves:	****					****			****	****		

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Fairview St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.711
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street				McFadden Ave															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	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											
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0											
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	1	1	0	1	0	1	1	0

Volume Module:

Base Vol:	176	1493	144	126	1057	217	219	604	155	107	503	145
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:	176	1493	144	126	1057	217	219	604	155	107	503	145
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:	176	1493	144	126	1057	217	219	604	155	107	503	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	176	1493	144	126	1057	217	219	604	155	107	503	145
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:	176	1493	144	126	1057	217	219	604	155	107	503	145

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	1.59	0.41	1.00	1.55	0.45
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	2647	653	1600	2584	716

Capacity Analysis Module:

Vol/Sat:	0.11	0.29	0.09	0.08	0.21	0.14	0.14	0.23	0.24	0.07	0.19	0.20
Crit Moves:	****		****		****		****		****		****	

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Existing Year 2013  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #29 Fairview St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.661
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	B

\*\*\*\*\*

Street Name:	Fairview St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	1	0	0

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Volume Module:

Base Vol:	289	1561	147	213	902	142	145	514	123	167	735	192
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:	289	1561	147	213	902	142	145	514	123	167	735	192
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:	289	1561	147	213	902	142	145	514	123	167	735	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	289	1561	147	213	902	142	145	514	123	167	735	192
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:	289	1561	147	213	902	142	145	514	123	167	735	192

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	2.00	2.74	0.26	2.00	2.59	0.41	2.00	2.42	0.58	2.00	2.38	0.62
Final Sat.:	3200	4587	413	3200	4347	653	3200	4073	927	3200	4006	994

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Capacity Analysis Module:

Vol/Sat:	0.09	0.34	0.36	0.07	0.21	0.22	0.05	0.13	0.13	0.05	0.18	0.19
Crit Moves:			****	****			****					****

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## **TRAFFIX WORKSHEETS**

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YEAR 2035 – NO PROJECT – AM

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 Future Year 2035  
 Baseline  
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Impact Analysis Report  
 Level Of Service

Intersection	Base		Future		Change in	
	LOS	Veh C	LOS	Veh C		
# 1 Euclid St and Westminster Ave	D	xxxxxx 0.864	D	xxxxxx 0.864	+ 0.000	V/C
# 2 Euclid St and McFadden Ave	F	xxxxxx 1.258	F	xxxxxx 1.258	+ 0.000	V/C
# 3 Euclid St and Edinger Ave	F	xxxxxx 1.086	F	xxxxxx 1.086	+ 0.000	V/C
# 4 Newhope St and Westminster Ave	B	xxxxxx 0.699	B	xxxxxx 0.699	+ 0.000	V/C
# 5 Newhope St and Hazard Ave	A	xxxxxx 0.537	A	xxxxxx 0.537	+ 0.000	V/C
# 6 Newhope St and 1st St	B	xxxxxx 0.630	B	xxxxxx 0.630	+ 0.000	V/C
# 7 Newhope St and McFadden Ave	B	xxxxxx 0.607	B	xxxxxx 0.607	+ 0.000	V/C
# 8 Newhope St and Edinger Ave	B	xxxxxx 0.660	B	xxxxxx 0.660	+ 0.000	V/C
# 9 Harbor Blvd and Garden Grove B	A	xxxxxx 0.518	A	xxxxxx 0.518	+ 0.000	V/C
# 10 Harbor Blvd and WB SR-22 Off-R	C	25.4 0.657	C	25.4 0.657	+ 0.000	D/V
# 11 Trask Ave and EB SR-22 On-Ramp	A	9.0 0.454	A	9.0 0.454	+ 0.000	D/V
# 12 Harbor Blvd and Trask Ave	E	xxxxxx 0.969	E	xxxxxx 0.969	+ 0.000	V/C
# 13 Harbor Blvd and Westminster Av	B	xxxxxx 0.630	B	xxxxxx 0.630	+ 0.000	V/C
# 14 Harbor Blvd and Hazard Ave	E	xxxxxx 0.908	E	xxxxxx 0.908	+ 0.000	V/C
# 15 Harbor Blvd and 5th St	B	xxxxxx 0.690	B	xxxxxx 0.690	+ 0.000	V/C
# 16 Harbor Blvd and 1st St	C	xxxxxx 0.728	C	xxxxxx 0.728	+ 0.000	V/C
# 17 Harbor Blvd and McFadden Ave	C	xxxxxx 0.748	C	xxxxxx 0.748	+ 0.000	V/C
# 18 Harbor Blvd and Edinger Ave	B	xxxxxx 0.672	B	xxxxxx 0.672	+ 0.000	V/C
# 19 Harbor Blvd and Warner Ave	C	xxxxxx 0.707	C	xxxxxx 0.707	+ 0.000	V/C
# 20 Harbor Blvd and Segerstrom Ave	C	xxxxxx 0.721	C	xxxxxx 0.721	+ 0.000	V/C
# 21 Harbor Blvd and MacArthur Blvd	D	xxxxxx 0.871	D	xxxxxx 0.871	+ 0.000	V/C
# 22 Harbor Blvd and Sunflower Ave	A	xxxxxx 0.552	A	xxxxxx 0.552	+ 0.000	V/C
# 23 Harbor Blvd and South Coast Dr	A	xxxxxx 0.480	A	xxxxxx 0.480	+ 0.000	V/C
# 24 Harbor Blvd and NB I-405 Off-R	B	18.1 0.645	B	18.1 0.645	+ 0.000	D/V

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 Future Year 2035  
 Baseline  
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Intersection		Base		Future			Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh	C	
# 25 Harbor Blvd and SB I-405 Off-R	B	18.7	0.561	B 18.7	0.561	+ 0.000	D/V
# 26 Fairview St and 17th St	D	xxxxx	0.893	D xxxxx	0.893	+ 0.000	V/C
# 27 Fairview St and 1st St	C	xxxxx	0.797	C xxxxx	0.797	+ 0.000	V/C
# 28 Fairview St and McFadden Ave	C	xxxxx	0.722	C xxxxx	0.722	+ 0.000	V/C
# 29 Fairview St and Edinger Ave	C	xxxxx	0.789	C xxxxx	0.789	+ 0.000	V/C

Future Year 2035  
Baseline

Level Of Service Computation Report

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

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Intersection #1 Euclid St and Westminster Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.864
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	168	Level Of Service:	D

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Street Name:	Euclid St						Westminster Ave					
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	2	1	0	2	1	0	3

Volume Module:

Base Vol:	148	1163	174	121	1977	49	143	680	361	198	296	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	148	1163	174	121	1977	49	143	680	361	198	296	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	148	1163	174	121	1977	49	143	680	361	198	296	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	1163	174	121	1977	49	143	680	361	198	296	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	148	1163	174	121	1977	49	143	680	361	198	296	76

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.61	0.39	1.00	2.93	0.07	1.00	2.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4375	625	1600	4884	116	1600	3400	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.09	0.27	0.28	0.08	0.40	0.42	0.09	0.20	0.23	0.12	0.06	0.05
Crit Moves:	****					****			****	****		

\*\*\*\*\*

Future Year 2035
Baseline

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

\*\*\*\*\*
Intersection #2 Euclid St and McFadden Ave
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 1.258
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*

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

Volume Module:
Base Vol: 133 994 75 32 2439 124 240 424 906 119 314 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: 133 994 75 32 2439 124 240 424 906 119 314 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: 133 994 75 32 2439 124 240 424 906 119 314 90
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 133 994 75 32 2439 124 240 424 906 119 314 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: 133 994 75 32 2439 124 240 424 906 119 314 90

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.06 1.00 1.00 1.04 1.00 1.00 1.06 1.00 1.00 1.04 1.00
Lanes: 1.00 2.00 1.00 1.00 2.85 0.15 1.00 1.00 1.00 1.00 1.55 0.45
Final Sat.: 1600 3400 1600 1600 4768 232 1600 1700 1600 1600 2587 713

Capacity Analysis Module:
Vol/Sat: 0.08 0.29 0.05 0.02 0.51 0.53 0.15 0.25 0.57 0.07 0.12 0.13
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*
\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #3 Euclid St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	1.086
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

\*\*\*\*\*

Street Name:	Euclid St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	0	1	0

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

Volume Module:

Base Vol:	139	852	88	189	3008	200	199	664	457	142	528	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:	139	852	88	189	3008	200	199	664	457	142	528	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:	139	852	88	189	3008	200	199	664	457	142	528	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	852	88	189	3008	200	199	664	457	142	528	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:	139	852	88	189	3008	200	199	664	457	142	528	114

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

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.72	0.28	2.00	2.81	0.19	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	4551	449	3200	4701	299	1600	3400	1600	1600	3400	1600

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Capacity Analysis Module:

Vol/Sat:	0.04	0.19	0.20	0.06	0.64	0.67	0.12	0.20	0.29	0.09	0.16	0.07
Crit Moves:	****					****			****	****		

\*\*\*\*\*



Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #4 Newhope St and Westminster Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 76 Level Of Service: B
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035  
Baseline

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

\*\*\*\*\*

Intersection #5 Newhope St and Hazard Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.537  
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 40 Level Of Service: A  
\*\*\*\*\*

Street Name:	Newhope St						Hazard Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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	1	0	1	1	0	1

Volume Module:

Base Vol:	63	539	139	165	746	80	100	354	121	117	325	158
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	539	139	165	746	80	100	354	121	117	325	158
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	539	139	165	746	80	100	354	121	117	325	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	539	139	165	746	80	100	354	121	117	325	158
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	539	139	165	746	80	100	354	121	117	325	158

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	1.00	1.59	0.41	1.00	1.81	0.19	1.00	1.49	0.51	1.00	1.35	0.65
Final Sat.:	1600	2644	656	1600	2990	310	1600	2485	815	1600	2253	1047

Capacity Analysis Module:

Vol/Sat:	0.04	0.20	0.21	0.10	0.25	0.26	0.06	0.14	0.15	0.07	0.14	0.15
Crit Moves:			****	****					****	****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #6 Newhope St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.630
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	B

\*\*\*\*\*

Street Name:	Newhope St						1st Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			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	1	0	2	1	0	2

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Volume Module:												
Base Vol:	86	475	179	134	843	161	138	752	85	154	416	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:	86	475	179	134	843	161	138	752	85	154	416	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:	86	475	179	134	843	161	138	752	85	154	416	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	475	179	134	843	161	138	752	85	154	416	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:	86	475	179	134	843	161	138	752	85	154	416	95

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Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.45	0.55	1.00	1.68	0.32	1.00	2.70	0.30	1.00	2.44	0.56
Final Sat.:	1600	2424	876	1600	2787	513	1600	4513	487	1600	4108	892

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Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.08	0.30	0.31	0.09	0.17	0.17	0.10	0.10	0.11
Crit Moves:	****					****	****			****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #7 Newhope St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.607
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	B

\*\*\*\*\*

Street Name:	Newhope St						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	1	0

Volume Module:

Base Vol:	119	481	168	137	838	103	83	435	99	115	433	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:	119	481	168	137	838	103	83	435	99	115	433	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:	119	481	168	137	838	103	83	435	99	115	433	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	481	168	137	838	103	83	435	99	115	433	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:	119	481	168	137	838	103	83	435	99	115	433	102

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	1.48	0.52	1.00	1.78	0.22	1.00	1.63	0.37	1.00	1.62	0.38
Final Sat.:	1600	2472	828	1600	2950	350	1600	2707	593	1600	2690	610

Capacity Analysis Module:

Vol/Sat:	0.07	0.19	0.20	0.09	0.28	0.29	0.05	0.16	0.17	0.07	0.16	0.17
Crit Moves:	****					****	****		****	****		

\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #8 Newhope St and Edinger Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.660
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 67 Level Of Service: B
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035
Baseline

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

\*\*\*\*\*
Intersection #9 Harbor Blvd and Garden Grove Blvd
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.518
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: A
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035
Baseline

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #10 Harbor Blvd and WB SR-22 Off-Ramp
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.657
Loss Time (sec): 0 Average Delay (sec/veh): 25.4
Optimal Cycle: 66 Level of Service: C
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Harbor Blvd (North/South Bound) and Westbound SR-22 Off-Ramp (East/West Bound).

Volume Module: Table showing various volume and adjustment factors like Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

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

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

Future Year 2035  
Baseline

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #11 Trask Ave and EB SR-22 On-Ramp
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.454
Loss Time (sec):      0           Average Delay (sec/veh):          9.0
Optimal Cycle:        42           Level of Service:                  A
*****

```

Street Name:	Eastbound SR-22 On-Ramp						Trask Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:												
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:	0	0	0	0	0	0	2	0	1	0	0	1

Volume Module:												
Base Vol:	0	0	0	0	0	0	576	863	0	0	599	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:	0	0	0	0	0	0	576	863	0	0	599	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:	0	0	0	0	0	0	576	863	0	0	599	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	576	863	0	0	599	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
Final Volume:	0	0	0	0	0	0	576	863	0	0	599	110

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	0.95	0.85
Lanes:	0.00	0.00	1.00	0.00	0.00	0.00	2.00	1.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	1900	0	0	0	3502	1900	0	1900	3610	1615

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.45	0.00	0.00	0.17	0.07
Crit Moves:							****			****		
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.00	0.00	0.00	0.50	0.50
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.45	0.00	0.00	0.33	0.14
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	15.2	0.2	0.0	0.0	15.0	13.4
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:	0.0	0.0	0.0	0.0	0.0	0.0	15.2	0.2	0.0	0.0	15.0	13.4
LOS by Move:	A	A	A	A	A	A	B	A	A	A	B	B
HCM2kAvgQ:	0	0	0	0	0	0	5	1	0	0	6	2

Note: Queue reported is the number of cars per lane.



Future Year 2035
Baseline

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

\*\*\*\*\*
Intersection #12 Harbor Blvd and Trask Ave
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.969
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
\*\*\*\*\*

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

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

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

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

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Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #13 Harbor Blvd and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.630
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Westminster Ave													
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	3	0	1	1	0	2	1	0	1	0	3	0	1

Volume Module:

Base Vol:	105	952	186	221	1455	72	144	760	16	160	382	164
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:	105	952	186	221	1455	72	144	760	16	160	382	164
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:	105	952	186	221	1455	72	144	760	16	160	382	164
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	952	186	221	1455	72	144	760	16	160	382	164
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:	105	952	186	221	1455	72	144	760	16	160	382	164

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	2.51	0.49	1.00	3.00	1.00	1.00	2.94	0.06	1.00	3.00	1.00
Final Sat.:	1600	4215	785	1600	5100	1600	1600	4901	99	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.23	0.24	0.14	0.29	0.05	0.09	0.16	0.16	0.10	0.07	0.10
Crit Moves:			****	****			****			****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #14 Harbor Blvd and Hazard Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.908
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

\*\*\*\*\*

Street Name:	Harbor Blvd						Hazard Ave									
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Prot+Permit			Prot+Permit			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	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	313	835	4	10	1713	223	165	44	459	35	101	15
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:	313	835	4	10	1713	223	165	44	459	35	101	15
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:	313	835	4	10	1713	223	165	44	459	35	101	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	313	835	4	10	1713	223	165	44	459	35	101	15
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:	313	835	4	10	1713	223	165	44	459	35	101	15

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	1.00	2.99	0.01	1.00	2.65	0.35	1.00	1.00	1.00	1.00	0.87	0.13
Final Sat.:	1600	4977	23	1600	4447	553	1600	1700	1600	1600	1393	207

Capacity Analysis Module:

Vol/Sat:	0.20	0.17	0.17	0.01	0.39	0.40	0.10	0.03	0.29	0.02	0.07	0.07
Crit Moves:	****					****			****	****		

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Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #15 Harbor Blvd and 5th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.690
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						5th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	0	1	0	1

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Volume Module:

Base Vol:	21	818	33	130	2169	66	121	144	72	122	144	208
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	818	33	130	2169	66	121	144	72	122	144	208
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	21	818	33	130	2169	66	121	144	72	122	144	208
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	818	33	130	2169	66	121	144	72	122	144	208
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	818	33	130	2169	66	121	144	72	122	144	208

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	1.00	2.88	0.12	1.00	2.91	0.09	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1600	4814	186	1600	4858	142	1600	1067	533	1600	1700	1600

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Capacity Analysis Module:

Vol/Sat:	0.01	0.17	0.18	0.08	0.45	0.47	0.08	0.13	0.14	0.08	0.08	0.13
Crit Moves:	****					****		****	****	****	****	

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Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #16 Harbor Blvd and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.728
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	84	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	3	0	1	2	0	2	1	0

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Volume Module:

Base Vol:	97	723	231	362	2056	84	81	916	92	172	390	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:	97	723	231	362	2056	84	81	916	92	172	390	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:	97	723	231	362	2056	84	81	916	92	172	390	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	723	231	362	2056	84	81	916	92	172	390	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:	97	723	231	362	2056	84	81	916	92	172	390	59

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.27	0.73	1.00	3.00	1.00	2.00	2.73	0.27	2.00	2.61	0.39
Final Sat.:	1600	3838	1162	1600	5100	1600	3200	4562	438	3200	4369	631

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Capacity Analysis Module:

Vol/Sat:	0.06	0.19	0.20	0.23	0.40	0.05	0.03	0.20	0.21	0.05	0.09	0.09
Crit Moves:	****			****			****	****				

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #17 Harbor Blvd and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						McFadden Ave					
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:	2	0	3	0	1	1	2	0	2	1	0	1
	0	1	0	1	0	0	1	1	0	1	1	0

Volume Module:

Base Vol:	174	843	79	132	1945	65	140	439	175	132	293	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:	174	843	79	132	1945	65	140	439	175	132	293	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:	174	843	79	132	1945	65	140	439	175	132	293	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	843	79	132	1945	65	140	439	175	132	293	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:	174	843	79	132	1945	65	140	439	175	132	293	73

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	2.00	3.00	1.00	2.00	2.90	0.10	1.00	1.43	0.57	1.00	1.60	0.40
Final Sat.:	3200	5100	1600	3200	4845	155	1600	2388	912	1600	2662	638

Capacity Analysis Module:

Vol/Sat:	0.05	0.17	0.05	0.04	0.40	0.42	0.09	0.18	0.19	0.08	0.11	0.11
Crit Moves:	****					****			****	****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

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Intersection #18 Harbor Blvd and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.672
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Edinger Ave					
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:	2	0	3	0	1	1	2	0	2	1	0	1

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Volume Module:

Base Vol:	81	778	147	370	1927	48	68	820	145	217	388	181
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	778	147	370	1927	48	68	820	145	217	388	181
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	778	147	370	1927	48	68	820	145	217	388	181
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	778	147	370	1927	48	68	820	145	217	388	181
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	778	147	370	1927	48	68	820	145	217	388	181

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.55	0.45	2.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	3200	4279	721	3200	5100	1600

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Capacity Analysis Module:

Vol/Sat:	0.03	0.15	0.09	0.12	0.38	0.03	0.02	0.19	0.20	0.07	0.08	0.11
Crit Moves:	****				****				****	****		

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Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #19 Harbor Blvd and Warner Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.707
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	C

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Street Name:	Harbor Blvd						Warner Ave					
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:	2	0	2	1	0	0	2	0	3	0	1	0

Volume Module:

Base Vol:	80	593	135	326	2056	102	104	1085	373	146	375	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	593	135	326	2056	102	104	1085	373	146	375	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	593	135	326	2056	102	104	1085	373	146	375	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	593	135	326	2056	102	104	1085	373	146	375	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	593	135	326	2056	102	104	1085	373	146	375	73

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.44	0.56	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	4110	890	3200	5100	1600	3200	5100	1600	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.14	0.15	0.10	0.40	0.06	0.03	0.21	0.23	0.05	0.07	0.05
Crit Moves:	****				****			****	****			

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Future Year 2035  
Baseline

Level Of Service Computation Report

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

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Intersection #20 Harbor Blvd and Segerstrom Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.721
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Segerstrom Ave					
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:	2	0	2	1	0	2	1	0	1	1	0	2

Volume Module:

Base Vol:	72	675	74	295	2037	156	79	496	143	67	360	141
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	675	74	295	2037	156	79	496	143	67	360	141
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	675	74	295	2037	156	79	496	143	67	360	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	675	74	295	2037	156	79	496	143	67	360	141
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	675	74	295	2037	156	79	496	143	67	360	141

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	2.00	2.70	0.30	1.00	2.79	0.21	1.00	1.55	0.45	1.00	2.00	1.00
Final Sat.:	3200	4526	474	1600	4659	341	1600	2584	716	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.15	0.16	0.18	0.44	0.46	0.05	0.19	0.20	0.04	0.11	0.09
Crit Moves:	****					****			****	****		

\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #21 Harbor Blvd and MacArthur Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.871
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 177 Level Of Service: D
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #22 Harbor Blvd and Sunflower Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.552
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: A
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #23 Harbor Blvd and South Coast Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.480
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035
Baseline

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #24 Harbor Blvd and NB I-405 Off-Ramp
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.645
Loss Time (sec): 0 Average Delay (sec/veh): 18.1
Optimal Cycle: 64 Level of Service: B
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Harbor Blvd (North/South Bound) and Westbound I-405 Off Ramp (East/West Bound).

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

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

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for each approach.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

Future Year 2035
Baseline

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #25 Harbor Blvd and SB I-405 Off-Ramp
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.561
Loss Time (sec): 0 Average Delay (sec/veh): 18.7
Optimal Cycle: 52 Level of Service: B
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Harbor Blvd (North/South Bound) and Eastbound I-405 Off-Ramp (East/West Bound).

Volume Module: Table showing various volume adjustment factors like Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different movements.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #26 Fairview St and 17th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.893
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Fairview Street, 17th Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

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

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

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

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #27 Fairview St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street						1st Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0	2	1	0					

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Volume Module:

Base Vol:	142	1584	126	144	1493	95	447	1200	262	101	330	142
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:	142	1584	126	144	1493	95	447	1200	262	101	330	142
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:	142	1584	126	144	1493	95	447	1200	262	101	330	142
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	1584	126	144	1493	95	447	1200	262	101	330	142
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:	142	1584	126	144	1493	95	447	1200	262	101	330	142

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	2.82	0.18	1.00	2.46	0.54	1.00	2.10	0.90
Final Sat.:	1600	5100	1600	1600	4713	287	1600	4140	860	1600	3556	1444

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Capacity Analysis Module:

Vol/Sat:	0.09	0.31	0.08	0.09	0.32	0.33	0.28	0.29	0.30	0.06	0.09	0.10
Crit Moves:	****					****	****					****

\*\*\*\*\*



Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Fairview St and McFadden Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.722
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: C
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035
Baseline

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

\*\*\*\*\*
Intersection #29 Fairview St and Edinger Ave
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.789
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 108 Level Of Service: C
\*\*\*\*\*

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

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

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

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

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## **TRAFFIX WORKSHEETS**

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YEAR 2035 – NO PROJECT – PM

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 Future Year 2035  
 Baseline  
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Impact Analysis Report  
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Euclid St and Westminster Ave	D	xxxxxx 0.807	D	xxxxxx 0.807	+ 0.000 V/C
# 2 Euclid St and McFadden Ave	C	xxxxxx 0.715	C	xxxxxx 0.715	+ 0.000 V/C
# 3 Euclid St and Edinger Ave	E	xxxxxx 0.901	E	xxxxxx 0.901	+ 0.000 V/C
# 4 Newhope St and Westminster Ave	D	xxxxxx 0.830	D	xxxxxx 0.830	+ 0.000 V/C
# 5 Newhope St and Hazard Ave	C	xxxxxx 0.737	C	xxxxxx 0.737	+ 0.000 V/C
# 6 Newhope St and 1st St	D	xxxxxx 0.816	D	xxxxxx 0.816	+ 0.000 V/C
# 7 Newhope St and McFadden Ave	C	xxxxxx 0.714	C	xxxxxx 0.714	+ 0.000 V/C
# 8 Newhope St and Edinger Ave	C	xxxxxx 0.791	C	xxxxxx 0.791	+ 0.000 V/C
# 9 Harbor Blvd and Garden Grove B	D	xxxxxx 0.868	D	xxxxxx 0.868	+ 0.000 V/C
# 10 Harbor Blvd and WB SR-22 Off-R	C	24.7 0.678	C	24.7 0.678	+ 0.000 D/V
# 11 Trask Ave and EB SR-22 On-Ramp	B	12.9 0.463	B	12.9 0.463	+ 0.000 D/V
# 12 Harbor Blvd and Trask Ave	F	xxxxxx 1.431	F	xxxxxx 1.431	+ 0.000 V/C
# 13 Harbor Blvd and Westminster Av	C	xxxxxx 0.712	C	xxxxxx 0.712	+ 0.000 V/C
# 14 Harbor Blvd and Hazard Ave	C	xxxxxx 0.717	C	xxxxxx 0.717	+ 0.000 V/C
# 15 Harbor Blvd and 5th St	C	xxxxxx 0.737	C	xxxxxx 0.737	+ 0.000 V/C
# 16 Harbor Blvd and 1st St	D	xxxxxx 0.863	D	xxxxxx 0.863	+ 0.000 V/C
# 17 Harbor Blvd and McFadden Ave	B	xxxxxx 0.680	B	xxxxxx 0.680	+ 0.000 V/C
# 18 Harbor Blvd and Edinger Ave	B	xxxxxx 0.694	B	xxxxxx 0.694	+ 0.000 V/C
# 19 Harbor Blvd and Warner Ave	C	xxxxxx 0.720	C	xxxxxx 0.720	+ 0.000 V/C
# 20 Harbor Blvd and Segerstrom Ave	D	xxxxxx 0.853	D	xxxxxx 0.853	+ 0.000 V/C
# 21 Harbor Blvd and MacArthur Blvd	D	xxxxxx 0.841	D	xxxxxx 0.841	+ 0.000 V/C
# 22 Harbor Blvd and Sunflower Ave	D	xxxxxx 0.815	D	xxxxxx 0.815	+ 0.000 V/C
# 23 Harbor Blvd and South Coast Dr	B	xxxxxx 0.611	B	xxxxxx 0.611	+ 0.000 V/C
# 24 Harbor Blvd and NB I-405 Off-R	B	18.5 0.636	B	18.5 0.636	+ 0.000 D/V

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 Future Year 2035  
 Baseline  
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Intersection		Base		Future			Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 25 Harbor Blvd and SB I-405 Off-R	C	24.9	0.799	C 24.9	0.799	+ 0.000	D/V
# 26 Fairview St and 17th St	F	xxxxx	1.064	F xxxxx	1.064	+ 0.000	V/C
# 27 Fairview St and 1st St	F	xxxxx	1.032	F xxxxx	1.032	+ 0.000	V/C
# 28 Fairview St and McFadden Ave	B	xxxxx	0.683	B xxxxx	0.683	+ 0.000	V/C
# 29 Fairview St and Edinger Ave	C	xxxxx	0.783	C xxxxx	0.783	+ 0.000	V/C

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Euclid St and Westminster Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.807
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 118 Level Of Service: D
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Euclid St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.715
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						McFadden Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	498	1822	191	88	1107	150	32	227	116	27	248	47
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:	498	1822	191	88	1107	150	32	227	116	27	248	47
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:	498	1822	191	88	1107	150	32	227	116	27	248	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	498	1822	191	88	1107	150	32	227	116	27	248	47
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:	498	1822	191	88	1107	150	32	227	116	27	248	47

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.04	1.00
Lanes:	1.00	2.00	1.00	1.00	2.64	0.36	1.00	1.32	0.68	1.00	1.68	0.32
Final Sat.:	1600	3400	1600	1600	4427	573	1600	2218	1082	1600	2790	510

Capacity Analysis Module:

Vol/Sat:	0.31	0.54	0.12	0.06	0.25	0.26	0.02	0.10	0.11	0.02	0.09	0.09
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #3 Euclid St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.901
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

\*\*\*\*\*

Street Name:	Euclid St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	0	1	0

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Volume Module:

Base Vol:	453	2028	122	164	912	186	218	565	174	108	902	239
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:	453	2028	122	164	912	186	218	565	174	108	902	239
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:	453	2028	122	164	912	186	218	565	174	108	902	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	453	2028	122	164	912	186	218	565	174	108	902	239
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:	453	2028	122	164	912	186	218	565	174	108	902	239

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.83	0.17	2.00	2.49	0.51	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	4728	272	3200	4187	813	1600	3400	1600	1600	3400	1600

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Capacity Analysis Module:

Vol/Sat:	0.14	0.43	0.45	0.05	0.22	0.23	0.14	0.17	0.11	0.07	0.27	0.15
Crit Moves:			****	****			****				****	

\*\*\*\*\*



Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #4 Newhope St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.830
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	134	Level Of Service:	D

\*\*\*\*\*

Street Name:	Newhope St						Westminster Ave													
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			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:	170	1324	200	76	808	83	160	538	198	239	777	214
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	1324	200	76	808	83	160	538	198	239	777	214
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	1324	200	76	808	83	160	538	198	239	777	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	1324	200	76	808	83	160	538	198	239	777	214
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	1324	200	76	808	83	160	538	198	239	777	214

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.74	0.26	1.00	1.81	0.19	1.00	2.19	0.81	1.00	2.35	0.65
Final Sat.:	1600	2880	420	1600	3002	298	1600	3709	1291	1600	3963	1037

Capacity Analysis Module:

Vol/Sat:	0.11	0.46	0.48	0.05	0.27	0.28	0.10	0.15	0.15	0.15	0.20	0.21
Crit Moves:			****	****			****					****

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #5 Newhope St and Hazard Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.737
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						Hazard Ave													
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	1	0	1	1	0					

Volume Module:

Base Vol:	80	1401	100	129	695	155	81	298	42	37	254	207
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	1401	100	129	695	155	81	298	42	37	254	207
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	1401	100	129	695	155	81	298	42	37	254	207
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	1401	100	129	695	155	81	298	42	37	254	207
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	1401	100	129	695	155	81	298	42	37	254	207

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	1.87	0.13	1.00	1.64	0.36	1.00	1.75	0.25	1.00	1.10	0.90
Final Sat.:	1600	3087	213	1600	2716	584	1600	2905	395	1600	1863	1437

Capacity Analysis Module:

Vol/Sat:	0.05	0.45	0.47	0.08	0.26	0.27	0.05	0.10	0.11	0.02	0.14	0.14
Crit Moves:			****	****			****				****	

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Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #6 Newhope St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.816
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	124	Level Of Service:	D

\*\*\*\*\*

Street Name:	Newhope St						1st Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	2	1	0	1	0	2	1	0

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Volume Module:

Base Vol:	145	1041	177	147	588	145	153	540	92	149	947	244
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:	145	1041	177	147	588	145	153	540	92	149	947	244
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:	145	1041	177	147	588	145	153	540	92	149	947	244
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	1041	177	147	588	145	153	540	92	149	947	244
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:	145	1041	177	147	588	145	153	540	92	149	947	244

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

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.71	0.29	1.00	1.60	0.40	1.00	2.56	0.44	1.00	2.39	0.61
Final Sat.:	1600	2835	465	1600	2667	633	1600	4301	699	1600	4017	983

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

Capacity Analysis Module:

Vol/Sat:	0.09	0.37	0.38	0.09	0.22	0.23	0.10	0.13	0.13	0.09	0.24	0.25
Crit Moves:			****	****			****					****

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #7 Newhope St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.714
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	80	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						McFadden Ave					
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	1	0	1	1	0	1

Volume Module:

Base Vol:	58	1155	113	127	513	88	105	453	53	71	323	229
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	1155	113	127	513	88	105	453	53	71	323	229
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	1155	113	127	513	88	105	453	53	71	323	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	1155	113	127	513	88	105	453	53	71	323	229
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	1155	113	127	513	88	105	453	53	71	323	229

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.05	1.00
Lanes:	1.00	1.82	0.18	1.00	1.71	0.29	1.00	1.79	0.21	1.00	1.17	0.83
Final Sat.:	1600	3015	285	1600	2831	469	1600	2965	335	1600	1972	1328

Capacity Analysis Module:

Vol/Sat:	0.04	0.38	0.40	0.08	0.18	0.19	0.07	0.15	0.16	0.04	0.16	0.17
Crit Moves:			****	****			****					****

\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*
Intersection #8 Newhope St and Edinger Ave
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.791
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 109 Level Of Service: C
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #9 Harbor Blvd and Garden Grove Blvd

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.868
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	172	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Garden Grove Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	1	0	3	0	1	1	0	3	0	1	2	0	2	1	0	2	0	2	1	0

Volume Module:

Base Vol:	377	1254	117	145	939	375	547	683	196	219	976	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:	377	1254	117	145	939	375	547	683	196	219	976	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:	377	1254	117	145	939	375	547	683	196	219	976	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	377	1254	117	145	939	375	547	683	196	219	976	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:	377	1254	117	145	939	375	547	683	196	219	976	112

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	2.33	0.67	2.00	2.69	0.31
Final Sat.:	1600	5100	1600	1600	5100	1600	3200	3930	1070	3200	4506	494

Capacity Analysis Module:

Vol/Sat:	0.24	0.25	0.07	0.09	0.18	0.23	0.17	0.17	0.18	0.07	0.22	0.23
Crit Moves:	****					****	****					****

\*\*\*\*\*

Future Year 2035  
Baseline

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #10 Harbor Blvd and WB SR-22 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.678  
Loss Time (sec): 0 Average Delay (sec/veh): 24.7  
Optimal Cycle: 71 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound SR-22 Off-Ramp					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	2	1	0	0	1	0	1

Volume Module:

Base Vol:	112	1682	0	0	1355	34	80	0	73	552	91	186
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	1682	0	0	1355	34	80	0	73	552	91	186
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	1682	0	0	1355	34	80	0	73	552	91	186
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	1682	0	0	1355	34	80	0	73	552	91	186
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	1682	0	0	1355	34	80	0	73	552	91	186

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.94	0.94	0.94
Lanes:	1.00	3.00	1.00	0.00	2.93	0.07	0.52	0.00	0.48	1.60	0.20	1.20
Final Sat.:	1805	5187	1900	0	5040	126	907	0	827	2843	351	2136

Capacity Analysis Module:

Vol/Sat:	0.06	0.32	0.00	0.00	0.27	0.27	0.09	0.00	0.09	0.19	0.26	0.09
Crit Moves:	****				****		****				****	
Green/Cycle:	0.09	0.49	0.00	0.00	0.40	0.40	0.13	0.00	0.13	0.38	0.38	0.38
Volume/Cap:	0.68	0.66	0.00	0.00	0.68	0.68	0.68	0.00	0.68	0.51	0.68	0.23
Delay/Veh:	54.8	20.1	0.0	0.0	25.8	25.8	49.5	0.0	49.5	24.0	27.3	21.0
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:	54.8	20.1	0.0	0.0	25.8	25.8	49.5	0.0	49.5	24.0	27.3	21.0
LOS by Move:	D	C	A	A	C	C	D	A	D	C	C	C
HCM2kAvgQ:	5	15	0	0	14	14	6	0	6	8	13	3

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Future Year 2035
Baseline

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #11 Trask Ave and EB SR-22 On-Ramp
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.463
Loss Time (sec): 0 Average Delay (sec/veh): 12.9
Optimal Cycle: 42 Level of Service: B
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Eastbound SR-22 On-Ramp and Trask Ave with North and South Bound details.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across various lanes.

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

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ values.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*



Future Year 2035  
Baseline

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

```

*****
Intersection #12 Harbor Blvd and Trask Ave
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          1.431
Loss Time (sec):      0           Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        180          Level Of Service:                F
*****

```

Street Name:	Harbor Blvd						Trask Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	76	1004	569	357	1176	74	86	493	326	193	318	1278
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:	76	1004	569	357	1176	74	86	493	326	193	318	1278
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:	76	1004	569	357	1176	74	86	493	326	193	318	1278
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	1004	569	357	1176	74	86	493	326	193	318	1278
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:	76	1004	569	357	1176	74	86	493	326	193	318	1278

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.20	0.36	0.22	0.23	0.05	0.05	0.15	0.20	0.12	0.09	0.80
Crit Moves:			****	****			****					****

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #13 Harbor Blvd and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.712
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Westminster Ave					
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	3	0	1	1	0	1	0

Volume Module:

Base Vol:	231	1320	194	218	1156	195	156	511	27	172	831	196
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:	231	1320	194	218	1156	195	156	511	27	172	831	196
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:	231	1320	194	218	1156	195	156	511	27	172	831	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	231	1320	194	218	1156	195	156	511	27	172	831	196
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:	231	1320	194	218	1156	195	156	511	27	172	831	196

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	2.62	0.38	1.00	3.00	1.00	1.00	2.85	0.15	1.00	3.00	1.00
Final Sat.:	1600	4385	615	1600	5100	1600	1600	4759	241	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.14	0.30	0.32	0.14	0.23	0.12	0.10	0.11	0.11	0.11	0.16	0.12
Crit Moves:			****	****			****				****	

\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #14 Harbor Blvd and Hazard Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.717
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 81 Level Of Service: C
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #15 Harbor Blvd and 5th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.737
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	87	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						5th Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	0	0	1	0

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Volume Module:

Base Vol:	91	1743	124	231	1076	142	106	175	44	57	234	167
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:	91	1743	124	231	1076	142	106	175	44	57	234	167
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:	91	1743	124	231	1076	142	106	175	44	57	234	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	1743	124	231	1076	142	106	175	44	57	234	167
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:	91	1743	124	231	1076	142	106	175	44	57	234	167

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	1.00	2.80	0.20	1.00	2.65	0.35	1.00	0.80	0.20	1.00	1.00	1.00
Final Sat.:	1600	4681	319	1600	4440	560	1600	1279	321	1600	1700	1600

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Capacity Analysis Module:

Vol/Sat:	0.06	0.37	0.39	0.14	0.24	0.25	0.07	0.14	0.14	0.04	0.14	0.10
Crit Moves:			****	****			****				****	

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #16 Harbor Blvd and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.863
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	167	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	3	0	1	2	0	2	1	0

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Volume Module:

Base Vol:	152	1648	128	237	828	76	148	616	94	424	1171	263
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:	152	1648	128	237	828	76	148	616	94	424	1171	263
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:	152	1648	128	237	828	76	148	616	94	424	1171	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	1648	128	237	828	76	148	616	94	424	1171	263
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:	152	1648	128	237	828	76	148	616	94	424	1171	263

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.78	0.22	1.00	3.00	1.00	2.00	2.60	0.40	2.00	2.45	0.55
Final Sat.:	1600	4654	346	1600	5100	1600	3200	4365	635	3200	4120	880

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Capacity Analysis Module:

Vol/Sat:	0.10	0.35	0.37	0.15	0.16	0.05	0.05	0.14	0.15	0.13	0.28	0.30
Crit Moves:			****	****			****					****

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #17 Harbor Blvd and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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:	2	0	3	0	1	2	0	2	1	0	1	0	1	1	0

Volume Module:

Base Vol:	168	1654	88	135	1123	64	228	410	91	233	388	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:	168	1654	88	135	1123	64	228	410	91	233	388	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:	168	1654	88	135	1123	64	228	410	91	233	388	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	1654	88	135	1123	64	228	410	91	233	388	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:	168	1654	88	135	1123	64	228	410	91	233	388	160

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	2.00	3.00	1.00	2.00	2.84	0.16	1.00	1.64	0.36	1.00	1.42	0.58
Final Sat.:	3200	5100	1600	3200	4741	259	1600	2719	581	1600	2366	934

Capacity Analysis Module:

Vol/Sat:	0.05	0.32	0.06	0.04	0.24	0.25	0.14	0.15	0.16	0.15	0.16	0.17
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #18 Harbor Blvd and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.694
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Edinger Ave													
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:	2	0	3	0	1	2	0	3	0	1	2	0	2	1	0	2	0	3	0	1

Volume Module:

Base Vol:	142	1741	140	345	920	64	118	748	115	209	775	154
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:	142	1741	140	345	920	64	118	748	115	209	775	154
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:	142	1741	140	345	920	64	118	748	115	209	775	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	1741	140	345	920	64	118	748	115	209	775	154
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:	142	1741	140	345	920	64	118	748	115	209	775	154

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.60	0.40	2.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	3200	4360	640	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.34	0.09	0.11	0.18	0.04	0.04	0.17	0.18	0.07	0.15	0.10
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #19 Harbor Blvd and Warner Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: C
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*



Future Year 2035
Baseline

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

\*\*\*\*\*
Intersection #20 Harbor Blvd and Segerstrom Ave
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.853
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 155 Level Of Service: D
\*\*\*\*\*

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

Volume Module:
Base Vol: 128 1937 63 99 869 47 89 436 137 111 933 510
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: 128 1937 63 99 869 47 89 436 137 111 933 510
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: 128 1937 63 99 869 47 89 436 137 111 933 510
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 128 1937 63 99 869 47 89 436 137 111 933 510
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: 128 1937 63 99 869 47 89 436 137 111 933 510

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.04 1.00 1.00 1.04 1.00 1.00 1.04 1.00 1.00 1.06 1.00
Lanes: 2.00 2.91 0.09 1.00 2.85 0.15 1.00 1.52 0.48 1.00 2.00 1.00
Final Sat.: 3200 4849 151 1600 4754 246 1600 2535 765 1600 3400 1600

Capacity Analysis Module:
Vol/Sat: 0.04 0.40 0.42 0.06 0.18 0.19 0.06 0.17 0.18 0.07 0.27 0.32
Crit Moves: \*\*\*\* \*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #21 Harbor Blvd and MacArthur Blvd

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.841
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	143	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						MacArthur Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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:	2	0	3	0	1	2	0	3	0	1	1	0	3	0	1

Volume Module:

Base Vol:	730	1604	121	138	931	210	146	490	225	108	1728	238
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:	730	1604	121	138	931	210	146	490	225	108	1728	238
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:	730	1604	121	138	931	210	146	490	225	108	1728	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	730	1604	121	138	931	210	146	490	225	108	1728	238
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:	730	1604	121	138	931	210	146	490	225	108	1728	238

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	1600	5100	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.23	0.31	0.08	0.04	0.18	0.13	0.09	0.10	0.14	0.07	0.34	0.15
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #22 Harbor Blvd and Sunflower Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.815
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	123	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Sunflower Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Split Phase			Split Phase					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	2	0	2	1	0	2	0	3	0	1	1	0	1	1	0

Volume Module:

Base Vol:	89	2096	138	96	1390	48	81	177	188	357	421	191
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	2096	138	96	1390	48	81	177	188	357	421	191
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	2096	138	96	1390	48	81	177	188	357	421	191
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	2096	138	96	1390	48	81	177	188	357	421	191
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	2096	138	96	1390	48	81	177	188	357	421	191

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	2.00	2.81	0.19	2.00	3.00	1.00	1.00	1.00	1.00	1.10	1.31	0.59
Final Sat.:	3200	4703	297	3200	5100	1600	1600	1700	1600	1764	2085	951

Capacity Analysis Module:

Vol/Sat:	0.03	0.45	0.47	0.03	0.27	0.03	0.05	0.10	0.12	0.20	0.20	0.20
Crit Moves:			****	****					****	****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #23 Harbor Blvd and South Coast Drive

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.611
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						South Coast Drive									
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			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:	2	0	3	1	1	2	0	4	0	1	1	2	0	2	0	1

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Volume Module:

Base Vol:	352	2118	264	106	1666	141	17	46	377	361	835	221
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:	352	2118	264	106	1666	141	17	46	377	361	835	221
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:	352	2118	264	106	1666	141	17	46	377	361	835	221
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	352	2118	264	106	1666	141	17	46	377	361	835	221
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:	352	2118	264	106	1666	141	17	46	377	361	835	221

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	0.22	1.78	2.00	2.00	1.00
Final Sat.:	3200	6800	1600	3200	6800	1600	1600	348	2852	3200	3400	1600

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Capacity Analysis Module:

Vol/Sat:	0.11	0.31	0.17	0.03	0.25	0.09	0.01	0.13	0.13	0.11	0.25	0.14
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Future Year 2035  
Baseline

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #24 Harbor Blvd and NB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.636  
Loss Time (sec): 0 Average Delay (sec/veh): 18.5  
Optimal Cycle: 63 Level of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound I-405 Off Ramp					
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:	0	0	4	0	0	4	0	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	1987	0	0	2183	0	0	0	0	834	0	785
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	1987	0	0	2183	0	0	0	0	834	0	785
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1987	0	0	2183	0	0	0	0	834	0	785
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1987	0	0	2183	0	0	0	0	834	0	785
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1987	0	0	2183	0	0	0	0	834	0	785

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.90	1.00	0.90
Lanes:	0.00	4.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	1.52	0.00	1.48
Final Sat.:	0	6916	0	0	6916	0	0	0	0	2602	0	2550

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.29	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.32	0.00	0.31
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.50	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.50	0.00	0.50
Volume/Cap:	0.00	0.58	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.64	0.00	0.61
Delay/Veh:	0.0	18.1	0.0	0.0	18.9	0.0	0.0	0.0	0.0	18.7	0.0	18.2
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:	0.0	18.1	0.0	0.0	18.9	0.0	0.0	0.0	0.0	18.7	0.0	18.2
LOS by Move:	A	B	A	A	B	A	A	A	A	B	A	B
HCM2kAvgQ:	0	12	0	0	14	0	0	0	0	13	0	12

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Future Year 2035
Baseline

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #25 Harbor Blvd and SB I-405 Off-Ramp
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.799
Loss Time (sec): 0 Average Delay (sec/veh): 24.9
Optimal Cycle: 114 Level of Service: C
\*\*\*\*\*

Table with columns for Street Name (Harbor Blvd, Eastbound I-405 Off-Ramp), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and various timing parameters like Min. Green, Y+R, and Lanes.

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

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

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for each movement.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #26 Fairview St and 17th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.064
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*

Table with columns for Street Name (Fairview Street, 17th Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

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

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

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

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #27 Fairview St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	1.032
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

\*\*\*\*\*

Street Name:	Fairview Street						1st Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	307	1520	78	137	1354	507	243	811	220	129	1291	153
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:	307	1520	78	137	1354	507	243	811	220	129	1291	153
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:	307	1520	78	137	1354	507	243	811	220	129	1291	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	1520	78	137	1354	507	243	811	220	129	1291	153
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:	307	1520	78	137	1354	507	243	811	220	129	1291	153

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	2.18	0.82	1.00	2.36	0.64	1.00	2.68	0.32
Final Sat.:	1600	5100	1600	1600	3692	1308	1600	3976	1024	1600	4491	509

Capacity Analysis Module:

Vol/Sat:	0.19	0.30	0.05	0.09	0.37	0.39	0.15	0.20	0.21	0.08	0.29	0.30
Crit Moves:	****					****	****					****

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Future Year 2035
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Fairview St and McFadden Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: B
\*\*\*\*\*

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

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

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

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

\*\*\*\*\*

Future Year 2035  
Baseline

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #29 Fairview St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.783
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	105	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview St						Edinger Ave													
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:	2	0	2	1	0	2	0	2	1	0	2	0	2	1	0					

Volume Module:

Base Vol:	240	1515	135	273	836	167	177	590	101	196	1091	340
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:	240	1515	135	273	836	167	177	590	101	196	1091	340
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:	240	1515	135	273	836	167	177	590	101	196	1091	340
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	240	1515	135	273	836	167	177	590	101	196	1091	340
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:	240	1515	135	273	836	167	177	590	101	196	1091	340

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	2.00	2.75	0.25	2.00	2.50	0.50	2.00	2.56	0.44	2.00	2.29	0.71
Final Sat.:	3200	4607	393	3200	4201	799	3200	4298	702	3200	3860	1140

Capacity Analysis Module:

Vol/Sat:	0.08	0.33	0.34	0.09	0.20	0.21	0.06	0.14	0.14	0.06	0.28	0.30
Crit Moves:			****	****			****					****

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## **TRAFFIX WORKSHEETS**

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YEAR 2035 – WITH PROJECT – AM

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 Future Year 2035  
 With Project  
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Impact Analysis Report  
 Level Of Service

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 1 Euclid St and Westminster Ave	D	xxxxxx 0.844	D	xxxxxx 0.844	+ 0.000	V/C
# 2 Euclid St and McFadden Ave	F	xxxxxx 1.249	F	xxxxxx 1.249	+ 0.000	V/C
# 3 Euclid St and Edinger Ave	F	xxxxxx 1.093	F	xxxxxx 1.093	+ 0.000	V/C
# 4 Newhope St and Westminster Ave	C	xxxxxx 0.732	C	xxxxxx 0.732	+ 0.000	V/C
# 5 Newhope St and Hazard Ave	A	xxxxxx 0.536	A	xxxxxx 0.536	+ 0.000	V/C
# 6 Newhope St and 1st St	B	xxxxxx 0.644	B	xxxxxx 0.644	+ 0.000	V/C
# 7 Newhope St and McFadden Ave	B	xxxxxx 0.612	B	xxxxxx 0.612	+ 0.000	V/C
# 8 Newhope St and Edinger Ave	C	xxxxxx 0.741	C	xxxxxx 0.741	+ 0.000	V/C
# 9 Harbor Blvd and Garden Grove B	A	xxxxxx 0.517	A	xxxxxx 0.517	+ 0.000	V/C
# 10 Harbor Blvd and WB SR-22 Off-R	C	25.7 0.658	C	25.7 0.658	+ 0.000	D/V
# 11 Trask Ave and EB SR-22 On-Ramp	A	9.0 0.445	A	9.0 0.445	+ 0.000	D/V
# 12 Harbor Blvd and Trask Ave	E	xxxxxx 0.939	E	xxxxxx 0.939	+ 0.000	V/C
# 13 Harbor Blvd and Westminster Av	B	xxxxxx 0.660	B	xxxxxx 0.660	+ 0.000	V/C
# 14 Harbor Blvd and Hazard Ave	E	xxxxxx 0.904	E	xxxxxx 0.904	+ 0.000	V/C
# 15 Harbor Blvd and 5th St	C	xxxxxx 0.703	C	xxxxxx 0.703	+ 0.000	V/C
# 16 Harbor Blvd and 1st St	C	xxxxxx 0.741	C	xxxxxx 0.741	+ 0.000	V/C
# 17 Harbor Blvd and McFadden Ave	C	xxxxxx 0.747	C	xxxxxx 0.747	+ 0.000	V/C
# 18 Harbor Blvd and Edinger Ave	B	xxxxxx 0.674	B	xxxxxx 0.674	+ 0.000	V/C
# 19 Harbor Blvd and Warner Ave	B	xxxxxx 0.692	B	xxxxxx 0.692	+ 0.000	V/C
# 20 Harbor Blvd and Segerstrom Ave	C	xxxxxx 0.729	C	xxxxxx 0.729	+ 0.000	V/C
# 21 Harbor Blvd and MacArthur Blvd	D	xxxxxx 0.865	D	xxxxxx 0.865	+ 0.000	V/C
# 22 Harbor Blvd and Sunflower Ave	A	xxxxxx 0.551	A	xxxxxx 0.551	+ 0.000	V/C
# 23 Harbor Blvd and South Coast Dr	A	xxxxxx 0.487	A	xxxxxx 0.487	+ 0.000	V/C
# 24 Harbor Blvd and NB I-405 Off-R	B	17.9 0.644	B	17.9 0.644	+ 0.000	D/V

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 Future Year 2035  
 With Project  
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Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 25 Harbor Blvd and SB I-405 Off-R	B	18.5	0.555	B 18.5	0.555	+ 0.000	D/V
# 26 Fairview St and 17th St	E	xxxxx	0.906	E xxxxx	0.906	+ 0.000	V/C
# 27 Fairview St and 1st St	D	xxxxx	0.817	D xxxxx	0.817	+ 0.000	V/C
# 28 Fairview St and McFadden Ave	C	xxxxx	0.720	C xxxxx	0.720	+ 0.000	V/C
# 29 Fairview St and Edinger Ave	C	xxxxx	0.797	C xxxxx	0.797	+ 0.000	V/C

Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #1 Euclid St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.844
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	146	Level Of Service:	D

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Street Name:	Euclid St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	0	3	0	1

Volume Module:

Base Vol:	160	1235	182	126	1948	53	136	637	320	203	332	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:	160	1235	182	126	1948	53	136	637	320	203	332	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:	160	1235	182	126	1948	53	136	637	320	203	332	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	160	1235	182	126	1948	53	136	637	320	203	332	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:	160	1235	182	126	1948	53	136	637	320	203	332	83

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.61	0.39	1.00	2.92	0.08	1.00	2.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4383	617	1600	4873	127	1600	3400	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.28	0.30	0.08	0.40	0.42	0.09	0.19	0.20	0.13	0.07	0.05
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #2 Euclid St and McFadden Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	1.249
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

\*\*\*\*\*

Street Name:	Euclid St						McFadden Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	142	1004	83	37	2465	136	236	460	870	119	339	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:	142	1004	83	37	2465	136	236	460	870	119	339	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:	142	1004	83	37	2465	136	236	460	870	119	339	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	1004	83	37	2465	136	236	460	870	119	339	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:	142	1004	83	37	2465	136	236	460	870	119	339	92

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.04	1.00
Lanes:	1.00	2.00	1.00	1.00	2.84	0.16	1.00	1.00	1.00	1.00	1.57	0.43
Final Sat.:	1600	3400	1600	1600	4749	251	1600	1700	1600	1600	2617	683

Capacity Analysis Module:

Vol/Sat:	0.09	0.30	0.05	0.02	0.52	0.54	0.15	0.27	0.54	0.07	0.13	0.13
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #3 Euclid St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	1.093
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

\*\*\*\*\*

Street Name:	Euclid St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	0	1	0

Volume Module:

Base Vol:	136	861	106	239	2848	204	255	1022	526	137	548	122
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	861	106	239	2848	204	255	1022	526	137	548	122
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	861	106	239	2848	204	255	1022	526	137	548	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	861	106	239	2848	204	255	1022	526	137	548	122
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	861	106	239	2848	204	255	1022	526	137	548	122

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.67	0.33	2.00	2.80	0.20	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	4474	526	3200	4679	321	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.19	0.20	0.07	0.61	0.64	0.16	0.30	0.33	0.09	0.16	0.08
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #4 Newhope St and Westminster Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit			Prot+Permit			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

Volume Module:

Base Vol:	89	696	262	249	864	86	125	815	106	136	340	131
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	696	262	249	864	86	125	815	106	136	340	131
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	696	262	249	864	86	125	815	106	136	340	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	696	262	249	864	86	125	815	106	136	340	131
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	696	262	249	864	86	125	815	106	136	340	131

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	1.45	0.55	1.00	1.82	0.18	1.00	2.65	0.35	1.00	2.17	0.83
Final Sat.:	1600	2425	875	1600	3010	290	1600	4448	552	1600	3665	1335

Capacity Analysis Module:

Vol/Sat:	0.06	0.29	0.30	0.16	0.29	0.30	0.08	0.18	0.19	0.09	0.09	0.10
Crit Moves:			****	****					****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #5 Newhope St and Hazard Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.536
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	40	Level Of Service:	A

\*\*\*\*\*

Street Name:	Newhope St						Hazard Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	1	0

Volume Module:

Base Vol:	73	568	141	146	748	81	86	294	114	133	377	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	568	141	146	748	81	86	294	114	133	377	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	73	568	141	146	748	81	86	294	114	133	377	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	568	141	146	748	81	86	294	114	133	377	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	73	568	141	146	748	81	86	294	114	133	377	165

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	1.60	0.40	1.00	1.80	0.20	1.00	1.44	0.56	1.00	1.39	0.61
Final Sat.:	1600	2664	636	1600	2987	313	1600	2406	894	1600	2326	974

Capacity Analysis Module:

Vol/Sat:	0.05	0.21	0.22	0.09	0.25	0.26	0.05	0.12	0.13	0.08	0.16	0.17
Crit Moves:			****	****			****					****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #6 Newhope St and 1st St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.644
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	B

\*\*\*\*\*

Street Name:	Newhope St						1st Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			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	1	0	2	1	0	2

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Volume Module:

Base Vol:	99	495	174	120	847	172	138	698	89	171	492	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:	99	495	174	120	847	172	138	698	89	171	492	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:	99	495	174	120	847	172	138	698	89	171	492	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	495	174	120	847	172	138	698	89	171	492	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:	99	495	174	120	847	172	138	698	89	171	492	102

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.48	0.52	1.00	1.66	0.34	1.00	2.66	0.34	1.00	2.48	0.52
Final Sat.:	1600	2468	832	1600	2760	540	1600	4457	543	1600	4176	824

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Capacity Analysis Module:

Vol/Sat:	0.06	0.20	0.21	0.08	0.31	0.32	0.09	0.16	0.16	0.11	0.12	0.12
Crit Moves:	****					****	****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #7 Newhope St and McFadden Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.612
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	B

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Street Name:	Newhope St						McFadden Ave					
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	1	0	1	1	0	1

Volume Module:

Base Vol:	127	506	169	135	861	108	81	407	96	116	446	103
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:	127	506	169	135	861	108	81	407	96	116	446	103
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:	127	506	169	135	861	108	81	407	96	116	446	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	506	169	135	861	108	81	407	96	116	446	103
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:	127	506	169	135	861	108	81	407	96	116	446	103

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	1.50	0.50	1.00	1.78	0.22	1.00	1.62	0.38	1.00	1.62	0.38
Final Sat.:	1600	2499	801	1600	2943	357	1600	2689	611	1600	2700	600

Capacity Analysis Module:

Vol/Sat:	0.08	0.20	0.21	0.08	0.29	0.30	0.05	0.15	0.16	0.07	0.17	0.17
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #8 Newhope St and Edinger Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	C

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Street Name:	Newhope St						Edinger Ave					
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	1	0	2	1	0	2

Volume Module:

Base Vol:	62	416	152	325	896	76	50	905	67	151	561	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:	62	416	152	325	896	76	50	905	67	151	561	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:	62	416	152	325	896	76	50	905	67	151	561	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	416	152	325	896	76	50	905	67	151	561	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:	62	416	152	325	896	76	50	905	67	151	561	109

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	1.46	0.54	1.00	1.84	0.16	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2444	856	1600	3050	250	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.17	0.18	0.20	0.29	0.30	0.03	0.27	0.04	0.09	0.17	0.07
Crit Moves:			****	****			****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #9 Harbor Blvd and Garden Grove Blvd

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.517
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	A

\*\*\*\*\*

Street Name:	Harbor Blvd						Garden Grove Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	2	0	2	1	0	2

Volume Module:

Base Vol:	189	951	124	96	837	188	385	761	246	81	308	26
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:	189	951	124	96	837	188	385	761	246	81	308	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	189	951	124	96	837	188	385	761	246	81	308	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	951	124	96	837	188	385	761	246	81	308	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	189	951	124	96	837	188	385	761	246	81	308	26

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	2.27	0.73	2.00	2.77	0.23
Final Sat.:	1600	5100	1600	1600	5100	1600	3200	3827	1173	3200	4626	374

Capacity Analysis Module:

Vol/Sat:	0.12	0.19	0.08	0.06	0.16	0.12	0.12	0.20	0.21	0.03	0.07	0.07
Crit Moves:	****				****				****	****		

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Future Year 2035  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #10 Harbor Blvd and WB SR-22 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.658  
Loss Time (sec): 0 Average Delay (sec/veh): 25.7  
Optimal Cycle: 67 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound SR-22 Off-Ramp					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	2	1	0	0	1	0	1

Volume Module:

Base Vol:	48	1061	0	0	1293	15	61	0	130	717	61	115
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	1061	0	0	1293	15	61	0	130	717	61	115
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	1061	0	0	1293	15	61	0	130	717	61	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	1061	0	0	1293	15	61	0	130	717	61	115
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	1061	0	0	1293	15	61	0	130	717	61	115

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.91	0.89	1.00	0.89	0.94	0.94	0.94
Lanes:	1.00	3.00	0.00	0.00	2.97	0.03	0.32	0.00	0.68	1.75	0.13	1.12
Final Sat.:	1805	5187	0	0	5117	59	542	0	1155	3137	229	2007

Capacity Analysis Module:

Vol/Sat:	0.03	0.20	0.00	0.00	0.25	0.25	0.11	0.00	0.11	0.23	0.27	0.06
Crit Moves:	****				****		****				****	
Green/Cycle:	0.04	0.42	0.00	0.00	0.38	0.38	0.17	0.00	0.17	0.39	0.40	0.40
Volume/Cap:	0.66	0.48	0.00	0.00	0.66	0.66	0.66	0.00	0.66	0.59	0.66	0.14
Delay/Veh:	67.2	21.0	0.0	0.0	26.2	26.2	44.2	0.0	44.2	25.1	25.4	18.8
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:	67.2	21.0	0.0	0.0	26.2	26.2	44.2	0.0	44.2	25.1	25.4	18.8
LOS by Move:	E	C	A	A	C	C	D	A	D	C	C	B
HCM2kAvgQ:	3	9	0	0	13	13	7	0	7	10	13	2

Note: Queue reported is the number of cars per lane.  
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Future Year 2035  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #11 Trask Ave and EB SR-22 On-Ramp
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.445
Loss Time (sec):      0            Average Delay (sec/veh):          9.0
Optimal Cycle:        41            Level Of Service:          A
*****

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Street Name:	Eastbound SR-22 On-Ramp						Trask Ave									
	North Bound			South Bound			East Bound			West Bound						
Approach:																
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:	0	0	0	0	0	0	2	0	1	0	0	1	0	2	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	580	846	0	0	566	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:	0	0	0	0	0	0	580	846	0	0	566	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:	0	0	0	0	0	0	580	846	0	0	566	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	580	846	0	0	566	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
Final Volume:	0	0	0	0	0	0	580	846	0	0	566	106

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	0.95	0.85
Lanes:	0.00	0.00	1.00	0.00	0.00	0.00	2.00	1.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	1900	0	0	0	3502	1900	0	1900	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.45	0.00	0.00	0.16	0.07
Crit Moves:								****			****	
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.51	1.00	0.00	0.00	0.49	0.49
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.45	0.00	0.00	0.32	0.13
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.2	0.0	0.0	15.8	14.2
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:	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.2	0.0	0.0	15.8	14.2
LOS by Move:	A	A	A	A	A	A	B	A	A	A	B	B
HCM2kAvgQ:	0	0	0	0	0	0	5	1	0	0	6	2

Note: Queue reported is the number of cars per lane.



Future Year 2035  
With Project

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

\*\*\*\*\*  
Intersection #12 Harbor Blvd and Trask Ave  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.939  
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 180 Level Of Service: E  
\*\*\*\*\*

Street Name:	Harbor Blvd						Trask Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	35	623	422	314	1580	54	65	691	521	187	203	702
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	623	422	314	1580	54	65	691	521	187	203	702
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	623	422	314	1580	54	65	691	521	187	203	702
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	623	422	314	1580	54	65	691	521	187	203	702
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	623	422	314	1580	54	65	691	521	187	203	702

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.12	0.26	0.20	0.31	0.03	0.04	0.20	0.33	0.12	0.06	0.44
Crit Moves:			****	****			****					****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #13 Harbor Blvd and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.660
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Westminster Ave					
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	3	1	0	2	1	0	3

Volume Module:

Base Vol:	109	997	197	232	1401	74	138	737	14	175	443	193
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:	109	997	197	232	1401	74	138	737	14	175	443	193
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:	109	997	197	232	1401	74	138	737	14	175	443	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	997	197	232	1401	74	138	737	14	175	443	193
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:	109	997	197	232	1401	74	138	737	14	175	443	193

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	2.51	0.49	1.00	3.00	1.00	1.00	2.94	0.06	1.00	3.00	1.00
Final Sat.:	1600	4208	792	1600	5100	1600	1600	4911	89	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.24	0.25	0.15	0.27	0.05	0.09	0.15	0.16	0.11	0.09	0.12
Crit Moves:			****	****					****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #14 Harbor Blvd and Hazard Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

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Street Name:	Harbor Blvd						Hazard Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	1	0	1	0

Volume Module:

Base Vol:	345	874	4	10	1643	229	162	43	443	34	103	15
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:	345	874	4	10	1643	229	162	43	443	34	103	15
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:	345	874	4	10	1643	229	162	43	443	34	103	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	874	4	10	1643	229	162	43	443	34	103	15
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:	345	874	4	10	1643	229	162	43	443	34	103	15

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	1.00	2.99	0.01	1.00	2.63	0.37	1.00	1.00	1.00	1.00	0.87	0.13
Final Sat.:	1600	4978	22	1600	4413	587	1600	1700	1600	1600	1397	203

Capacity Analysis Module:

Vol/Sat:	0.22	0.18	0.18	0.01	0.37	0.39	0.10	0.03	0.28	0.02	0.07	0.07
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #15 Harbor Blvd and 5th St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.703
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	77	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						5th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	0	1	0	1

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Volume Module:

Base Vol:	20	853	31	129	2103	67	141	154	75	126	155	240
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:	20	853	31	129	2103	67	141	154	75	126	155	240
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:	20	853	31	129	2103	67	141	154	75	126	155	240
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	853	31	129	2103	67	141	154	75	126	155	240
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:	20	853	31	129	2103	67	141	154	75	126	155	240

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	1.00	2.89	0.11	1.00	2.91	0.09	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1600	4832	168	1600	4852	148	1600	1076	524	1600	1700	1600

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Capacity Analysis Module:

Vol/Sat:	0.01	0.18	0.18	0.08	0.43	0.45	0.09	0.14	0.14	0.08	0.09	0.15
Crit Moves:	****					****	****					****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #16 Harbor Blvd and 1st St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	3	0	1	2	0	2	1	0

Volume Module:												
Base Vol:	109	745	231	310	2016	80	86	938	108	190	419	58
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:	109	745	231	310	2016	80	86	938	108	190	419	58
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:	109	745	231	310	2016	80	86	938	108	190	419	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	745	231	310	2016	80	86	938	108	190	419	58
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:	109	745	231	310	2016	80	86	938	108	190	419	58

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.29	0.71	1.00	3.00	1.00	2.00	2.69	0.31	2.00	2.64	0.36
Final Sat.:	1600	3864	1136	1600	5100	1600	3200	4504	496	3200	4416	584

Capacity Analysis Module:												
Vol/Sat:	0.07	0.19	0.20	0.19	0.40	0.05	0.03	0.21	0.22	0.06	0.09	0.10
Crit Moves:	****			****			****	****				

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #17 Harbor Blvd and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.747
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						McFadden Ave					
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:	2	0	3	0	1		2	0	2	1	0	
	0	1		0		1	0	1	1	0	1	1
	0		1		0	0	0	0	0	1	0	1
	1	1	0	1	1	0	1	0	1	1	1	0

Volume Module:

Base Vol:	184	841	72	131	1975	75	149	428	175	118	293	69
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	841	72	131	1975	75	149	428	175	118	293	69
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	841	72	131	1975	75	149	428	175	118	293	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	184	841	72	131	1975	75	149	428	175	118	293	69
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	841	72	131	1975	75	149	428	175	118	293	69

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	2.00	3.00	1.00	2.00	2.89	0.11	1.00	1.42	0.58	1.00	1.62	0.38
Final Sat.:	3200	5100	1600	3200	4824	176	1600	2371	929	1600	2690	610

Capacity Analysis Module:

Vol/Sat:	0.06	0.16	0.05	0.04	0.41	0.43	0.09	0.18	0.19	0.07	0.11	0.11
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #18 Harbor Blvd and Edinger Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.674
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						Edinger Ave					
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:	2	0	3	0	1		2	0	3	0	1	

Volume Module:

Base Vol:	78	772	139	396	1965	52	72	827	140	202	383	185
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	772	139	396	1965	52	72	827	140	202	383	185
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	772	139	396	1965	52	72	827	140	202	383	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	772	139	396	1965	52	72	827	140	202	383	185
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	772	139	396	1965	52	72	827	140	202	383	185

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.57	0.43	2.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	3200	4305	695	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.15	0.09	0.12	0.39	0.03	0.02	0.19	0.20	0.06	0.08	0.12
Crit Moves:	****			****			****	****		****	****	

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #19 Harbor Blvd and Warner Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.692
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	B

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Street Name:	Harbor Blvd						Warner Ave					
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:	2	0	2	1	0	0	2	0	3	0	1	1

Volume Module:

Base Vol:	79	595	133	357	2086	113	107	1101	351	135	379	74
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	595	133	357	2086	113	107	1101	351	135	379	74
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	595	133	357	2086	113	107	1101	351	135	379	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	595	133	357	2086	113	107	1101	351	135	379	74
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	595	133	357	2086	113	107	1101	351	135	379	74

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.45	0.55	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	4123	877	3200	5100	1600	3200	5100	1600	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.14	0.15	0.11	0.41	0.07	0.03	0.22	0.22	0.04	0.07	0.05
Crit Moves:	****			****			****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #20 Harbor Blvd and Segerstrom Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.729
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	84	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Segerstrom Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	2	1	0	1	0	2	1	0	1	0	1	1	0	1	0	2	0	1

Volume Module:

Base Vol:	74	680	77	286	2048	149	78	505	152	68	348	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	680	77	286	2048	149	78	505	152	68	348	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	74	680	77	286	2048	149	78	505	152	68	348	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	680	77	286	2048	149	78	505	152	68	348	134
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	680	77	286	2048	149	78	505	152	68	348	134

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	2.00	2.69	0.31	1.00	2.80	0.20	1.00	1.54	0.46	1.00	2.00	1.00
Final Sat.:	3200	4512	488	1600	4674	326	1600	2560	740	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.15	0.16	0.18	0.44	0.46	0.05	0.20	0.21	0.04	0.10	0.08
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #21 Harbor Blvd and MacArthur Blvd

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.865
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	168	Level Of Service:	D

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Street Name:	Harbor Blvd						MacArthur Ave					
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:	2	0	3	0	1	1	2	0	3	0	1	1

Volume Module:

Base Vol:	134	845	72	267	1974	162	187	1348	576	121	372	96
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:	134	845	72	267	1974	162	187	1348	576	121	372	96
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:	134	845	72	267	1974	162	187	1348	576	121	372	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	845	72	267	1974	162	187	1348	576	121	372	96
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:	134	845	72	267	1974	162	187	1348	576	121	372	96

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	1600	5100	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.17	0.05	0.08	0.39	0.10	0.12	0.26	0.36	0.08	0.07	0.06
Crit Moves:	****				****				****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #22 Harbor Blvd and Sunflower Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.551
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	A

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Street Name:	Harbor Blvd						Sunflower Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	1	0	0	2	0	3	0	1	1
	0	1	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	253	1206	155	338	1938	64	10	84	28	75	104	78
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:	253	1206	155	338	1938	64	10	84	28	75	104	78
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:	253	1206	155	338	1938	64	10	84	28	75	104	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	253	1206	155	338	1938	64	10	84	28	75	104	78
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:	253	1206	155	338	1938	64	10	84	28	75	104	78

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	2.00	2.66	0.34	2.00	3.00	1.00	1.00	1.50	0.50	1.00	1.09	0.91
Final Sat.:	3200	4453	547	3200	5100	1600	1600	2500	800	1600	1832	1463

Capacity Analysis Module:

Vol/Sat:	0.08	0.27	0.28	0.11	0.38	0.04	0.01	0.03	0.04	0.05	0.06	0.05
Crit Moves:	****			****			****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #23 Harbor Blvd and South Coast Drive

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.487
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

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Street Name:	Harbor Blvd						South Coast Drive									
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			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:	2	0	3	1	1	2	0	4	0	1	1	2	0	2	0	1

Volume Module:

Base Vol:	308	1714	324	56	1895	41	6	28	228	103	109	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:	308	1714	324	56	1895	41	6	28	228	103	109	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:	308	1714	324	56	1895	41	6	28	228	103	109	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	308	1714	324	56	1895	41	6	28	228	103	109	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:	308	1714	324	56	1895	41	6	28	228	103	109	23

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	0.22	1.78	2.00	2.00	1.00
Final Sat.:	3200	6800	1600	3200	6800	1600	1600	350	2850	3200	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.25	0.20	0.02	0.28	0.03	0.00	0.08	0.08	0.03	0.03	0.01
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Future Year 2035  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #24 Harbor Blvd and NB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.644  
Loss Time (sec): 0 Average Delay (sec/veh): 17.9  
Optimal Cycle: 64 Level of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound I-405 Off Ramp					
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:	0	0	4	0	0	4	0	0	0	1	0	1

Volume Module:

Base Vol:	0	1477	0	0	2208	0	0	0	0	492	0	902
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	1477	0	0	2208	0	0	0	0	492	0	902
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1477	0	0	2208	0	0	0	0	492	0	902
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1477	0	0	2208	0	0	0	0	492	0	902
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1477	0	0	2208	0	0	0	0	492	0	902

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.89	1.00	0.89
Lanes:	0.00	4.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	1.35	0.00	1.65
Final Sat.:	0	6916	0	0	6916	0	0	0	0	2282	0	2778

Capacity Analysis Module:

Vol/Sat:	0.00	0.21	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.22	0.00	0.32
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.50	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.50	0.00	0.50
Volume/Cap:	0.00	0.43	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.43	0.00	0.64
Delay/Veh:	0.0	16.3	0.0	0.0	19.1	0.0	0.0	0.0	0.0	15.8	0.0	18.9
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:	0.0	16.3	0.0	0.0	19.1	0.0	0.0	0.0	0.0	15.8	0.0	18.9
LOS by Move:	A	B	A	A	B	A	A	A	A	B	A	B
HCM2kAvgQ:	0	8	0	0	14	0	0	0	0	7	0	13

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Future Year 2035  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #25 Harbor Blvd and SB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.555  
Loss Time (sec): 0 Average Delay (sec/veh): 18.5  
Optimal Cycle: 51 Level of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Eastbound I-405 Off-Ramp					
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:	0	0	3	0	0	4	2	0	0	0	0	0

Volume Module:	Harbor Blvd			Harbor Blvd			Eastbound I-405 Off-Ramp			Eastbound I-405 Off-Ramp		
Base Vol:	0	1314	0	0	1645	0	371	0	487	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	1314	0	0	1645	0	371	0	487	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1314	0	0	1645	0	371	0	487	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1314	0	0	1645	0	371	0	487	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1314	0	0	1645	0	371	0	487	0	0	0

Saturation Flow Module:	Harbor Blvd			Harbor Blvd			Eastbound I-405 Off-Ramp			Eastbound I-405 Off-Ramp		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	4.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	6916	0	3502	0	1615	0	0	0

Capacity Analysis Module:	Harbor Blvd			Harbor Blvd			Eastbound I-405 Off-Ramp			Eastbound I-405 Off-Ramp		
Vol/Sat:	0.00	0.25	0.00	0.00	0.24	0.00	0.11	0.00	0.30	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.46	0.00	0.00	0.46	0.00	0.54	0.00	0.54	0.00	0.00	0.00
Volume/Cap:	0.00	0.55	0.00	0.00	0.52	0.00	0.19	0.00	0.55	0.00	0.00	0.00
Delay/Veh:	0.0	20.1	0.0	0.0	19.5	0.0	11.7	0.0	15.7	0.0	0.0	0.0
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:	0.0	20.1	0.0	0.0	19.5	0.0	11.7	0.0	15.7	0.0	0.0	0.0
LOS by Move:	A	C	A	A	B	A	B	A	B	A	A	A
HCM2kAvgQ:	0	11	0	0	10	0	3	0	10	0	0	0

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #26 Fairview St and 17th St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.906
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

\*\*\*\*\*

Street Name:	Fairview Street						17th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	2	0	2	0	1	1

Volume Module:												
Base Vol:	143	1327	252	553	1542	129	279	1025	227	228	325	269
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:	143	1327	252	553	1542	129	279	1025	227	228	325	269
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:	143	1327	252	553	1542	129	279	1025	227	228	325	269
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	1327	252	553	1542	129	279	1025	227	228	325	269
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:	143	1327	252	553	1542	129	279	1025	227	228	325	269

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	3400	1600	3200	3400	1600	1600	5100	1600	1600	3400	1600

Capacity Analysis Module:												
Vol/Sat:	0.04	0.39	0.16	0.17	0.45	0.08	0.17	0.20	0.14	0.14	0.10	0.17
Crit Moves:	****			****			****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #27 Fairview St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.817
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	125	Level Of Service:	D

\*\*\*\*\*

Street Name:	Fairview Street						1st Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0

Volume Module:

Base Vol:	157	1586	130	140	1497	99	465	1283	289	103	350	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:	157	1586	130	140	1497	99	465	1283	289	103	350	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:	157	1586	130	140	1497	99	465	1283	289	103	350	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	157	1586	130	140	1497	99	465	1283	289	103	350	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:	157	1586	130	140	1497	99	465	1283	289	103	350	137

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	2.81	0.19	1.00	2.45	0.55	1.00	2.16	0.84
Final Sat.:	1600	5100	1600	1600	4702	298	1600	4118	882	1600	3650	1350

Capacity Analysis Module:

Vol/Sat:	0.10	0.31	0.08	0.09	0.32	0.33	0.29	0.31	0.33	0.06	0.10	0.10
Crit Moves:	****					****	****				****	

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Fairview St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	1	1	0

Volume Module:

Base Vol:	104	1288	128	130	1776	97	223	522	145	157	321	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	1288	128	130	1776	97	223	522	145	157	321	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	104	1288	128	130	1776	97	223	522	145	157	321	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	1288	128	130	1776	97	223	522	145	157	321	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	104	1288	128	130	1776	97	223	522	145	157	321	43

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	1.57	0.43	1.00	1.76	0.24
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	2604	696	1600	2922	378

Capacity Analysis Module:

Vol/Sat:	0.07	0.25	0.08	0.08	0.35	0.06	0.14	0.20	0.21	0.10	0.11	0.11
Crit Moves:	****				****				****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #29 Fairview St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	1	0	0

Volume Module:

Base Vol:	171	1097	168	383	1546	109	308	1114	164	423	683	229
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	171	1097	168	383	1546	109	308	1114	164	423	683	229
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	171	1097	168	383	1546	109	308	1114	164	423	683	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	171	1097	168	383	1546	109	308	1114	164	423	683	229
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	171	1097	168	383	1546	109	308	1114	164	423	683	229

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	2.60	0.40	2.00	2.80	0.20	2.00	2.62	0.38	2.00	2.25	0.75
Final Sat.:	3200	4363	637	3200	4684	316	3200	4384	616	3200	3795	1205

Capacity Analysis Module:

Vol/Sat:	0.05	0.25	0.26	0.12	0.33	0.34	0.10	0.25	0.27	0.13	0.18	0.19
Crit Moves:	****					****			****	****		

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## **TRAFFIX WORKSHEETS**

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YEAR 2035 – WITH PROJECT – PM

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 Future Year 2035  
 With Project  
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Impact Analysis Report  
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Euclid St and Westminster Ave	D	xxxxxx 0.827	D	xxxxxx 0.827	+ 0.000 V/C
# 2 Euclid St and McFadden Ave	C	xxxxxx 0.733	C	xxxxxx 0.733	+ 0.000 V/C
# 3 Euclid St and Edinger Ave	D	xxxxxx 0.891	D	xxxxxx 0.891	+ 0.000 V/C
# 4 Newhope St and Westminster Ave	D	xxxxxx 0.877	D	xxxxxx 0.877	+ 0.000 V/C
# 5 Newhope St and Hazard Ave	C	xxxxxx 0.734	C	xxxxxx 0.734	+ 0.000 V/C
# 6 Newhope St and 1st St	D	xxxxxx 0.813	D	xxxxxx 0.813	+ 0.000 V/C
# 7 Newhope St and McFadden Ave	C	xxxxxx 0.747	C	xxxxxx 0.747	+ 0.000 V/C
# 8 Newhope St and Edinger Ave	C	xxxxxx 0.754	C	xxxxxx 0.754	+ 0.000 V/C
# 9 Harbor Blvd and Garden Grove B	D	xxxxxx 0.867	D	xxxxxx 0.867	+ 0.000 V/C
# 10 Harbor Blvd and WB SR-22 Off-R	C	23.3 0.579	C	23.3 0.579	+ 0.000 D/V
# 11 Trask Ave and EB SR-22 On-Ramp	A	8.8 0.311	A	8.8 0.311	+ 0.000 D/V
# 12 Harbor Blvd and Trask Ave	D	xxxxxx 0.895	D	xxxxxx 0.895	+ 0.000 V/C
# 13 Harbor Blvd and Westminster Av	C	xxxxxx 0.726	C	xxxxxx 0.726	+ 0.000 V/C
# 14 Harbor Blvd and Hazard Ave	C	xxxxxx 0.773	C	xxxxxx 0.773	+ 0.000 V/C
# 15 Harbor Blvd and 5th St	C	xxxxxx 0.769	C	xxxxxx 0.769	+ 0.000 V/C
# 16 Harbor Blvd and 1st St	D	xxxxxx 0.859	D	xxxxxx 0.859	+ 0.000 V/C
# 17 Harbor Blvd and McFadden Ave	B	xxxxxx 0.694	B	xxxxxx 0.694	+ 0.000 V/C
# 18 Harbor Blvd and Edinger Ave	C	xxxxxx 0.720	C	xxxxxx 0.720	+ 0.000 V/C
# 19 Harbor Blvd and Warner Ave	C	xxxxxx 0.726	C	xxxxxx 0.726	+ 0.000 V/C
# 20 Harbor Blvd and Segerstrom Ave	D	xxxxxx 0.851	D	xxxxxx 0.851	+ 0.000 V/C
# 21 Harbor Blvd and MacArthur Blvd	D	xxxxxx 0.860	D	xxxxxx 0.860	+ 0.000 V/C
# 22 Harbor Blvd and Sunflower Ave	D	xxxxxx 0.823	D	xxxxxx 0.823	+ 0.000 V/C
# 23 Harbor Blvd and South Coast Dr	B	xxxxxx 0.608	B	xxxxxx 0.608	+ 0.000 V/C
# 24 Harbor Blvd and NB I-405 Off-R	B	18.8 0.646	B	18.8 0.646	+ 0.000 D/V

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 Future Year 2035  
 With Project  
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Intersection		Base		Future			Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 25 Harbor Blvd and SB I-405 Off-R	C	25.0	0.796	C 25.0	0.796	+ 0.000	D/V
# 26 Fairview St and 17th St	F	xxxxx	1.112	F xxxxx	1.112	+ 0.000	V/C
# 27 Fairview St and 1st St	F	xxxxx	1.080	F xxxxx	1.080	+ 0.000	V/C
# 28 Fairview St and McFadden Ave	C	xxxxx	0.700	C xxxxx	0.700	+ 0.000	V/C
# 29 Fairview St and Edinger Ave	C	xxxxx	0.794	C xxxxx	0.794	+ 0.000	V/C

Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #1 Euclid St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.827
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	132	Level Of Service:	D

\*\*\*\*\*

Street Name:	Euclid St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	0	2	1	0

Volume Module:

Base Vol:	340	1543	174	183	1498	100	111	502	198	218	689	147
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:	340	1543	174	183	1498	100	111	502	198	218	689	147
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:	340	1543	174	183	1498	100	111	502	198	218	689	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	340	1543	174	183	1498	100	111	502	198	218	689	147
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:	340	1543	174	183	1498	100	111	502	198	218	689	147

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.70	0.30	1.00	2.81	0.19	1.00	2.15	0.85	1.00	3.00	1.00
Final Sat.:	1600	4514	486	1600	4700	300	1600	3642	1358	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.21	0.34	0.36	0.11	0.32	0.33	0.07	0.14	0.15	0.14	0.14	0.09
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Euclid St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.733
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	C

\*\*\*\*\*

Street Name:	Euclid St						McFadden Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	0	1	1	0	2	1	0	1	0	1	1	0

Volume Module:

Base Vol:	517	1766	183	91	1108	170	39	274	135	25	263	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:	517	1766	183	91	1108	170	39	274	135	25	263	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:	517	1766	183	91	1108	170	39	274	135	25	263	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	517	1766	183	91	1108	170	39	274	135	25	263	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:	517	1766	183	91	1108	170	39	274	135	25	263	46

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.04	1.00
Lanes:	1.00	2.00	1.00	1.00	2.60	0.40	1.00	1.34	0.66	1.00	1.70	0.30
Final Sat.:	1600	3400	1600	1600	4362	638	1600	2244	1056	1600	2824	476

Capacity Analysis Module:

Vol/Sat:	0.32	0.52	0.11	0.06	0.25	0.27	0.02	0.12	0.13	0.02	0.09	0.10
Crit Moves:	****					****			****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #3 Euclid St and Edinger Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

\*\*\*\*\*

Street Name:	Euclid St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	1	0	1

Volume Module:

Base Vol:	437	1999	114	165	933	193	232	571	179	102	863	234
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:	437	1999	114	165	933	193	232	571	179	102	863	234
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:	437	1999	114	165	933	193	232	571	179	102	863	234
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	437	1999	114	165	933	193	232	571	179	102	863	234
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:	437	1999	114	165	933	193	232	571	179	102	863	234

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.84	0.16	2.00	2.49	0.51	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	4741	259	3200	4177	823	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.14	0.42	0.44	0.05	0.22	0.23	0.15	0.17	0.11	0.06	0.25	0.15
Crit Moves:			****	****			****				****	

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #4 Newhope St and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.877
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

\*\*\*\*\*

Street Name:	Newhope St						Westminster Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit			Prot+Permit			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

Volume Module:

Base Vol:	166	1308	236	81	829	73	151	608	215	276	769	215
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:	166	1308	236	81	829	73	151	608	215	276	769	215
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:	166	1308	236	81	829	73	151	608	215	276	769	215
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	1308	236	81	829	73	151	608	215	276	769	215
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:	166	1308	236	81	829	73	151	608	215	276	769	215

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.69	0.31	1.00	1.84	0.16	1.00	2.22	0.78	1.00	2.34	0.66
Final Sat.:	1600	2811	489	1600	3041	259	1600	3746	1254	1600	3951	1049

Capacity Analysis Module:

Vol/Sat:	0.10	0.47	0.48	0.05	0.27	0.28	0.09	0.16	0.17	0.17	0.19	0.20
Crit Moves:			****	****					****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #5 Newhope St and Hazard Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.734
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	70	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						Hazard Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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	1	0	1	1	0

Volume Module:

Base Vol:	81	1389	107	123	699	140	81	323	48	40	247	197
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	1389	107	123	699	140	81	323	48	40	247	197
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	1389	107	123	699	140	81	323	48	40	247	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	1389	107	123	699	140	81	323	48	40	247	197
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	1389	107	123	699	140	81	323	48	40	247	197

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	1.86	0.14	1.00	1.67	0.33	1.00	1.74	0.26	1.00	1.11	0.89
Final Sat.:	1600	3071	229	1600	2766	534	1600	2886	414	1600	1880	1420

Capacity Analysis Module:

Vol/Sat:	0.05	0.45	0.47	0.08	0.25	0.26	0.05	0.11	0.12	0.03	0.13	0.14
Crit Moves:			****	****			****					****

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Future Year 2035  
With Project

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

\*\*\*\*\*  
Intersection #6 Newhope St and 1st St  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.813  
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 122 Level Of Service: D  
\*\*\*\*\*

Street Name:	Newhope St						1st Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			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	1	0	2	1	0	2

Volume Module:

Base Vol:	165	1064	202	137	613	134	158	624	120	162	910	210
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:	165	1064	202	137	613	134	158	624	120	162	910	210
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:	165	1064	202	137	613	134	158	624	120	162	910	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1064	202	137	613	134	158	624	120	162	910	210
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:	165	1064	202	137	613	134	158	624	120	162	910	210

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	1.68	0.32	1.00	1.64	0.36	1.00	2.52	0.48	1.00	2.44	0.56
Final Sat.:	1600	2789	511	1600	2726	574	1600	4226	774	1600	4100	900

Capacity Analysis Module:

Vol/Sat:	0.10	0.38	0.40	0.09	0.22	0.23	0.10	0.15	0.15	0.10	0.22	0.23
Crit Moves:			****	****			****					****

Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #7 Newhope St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.747
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						McFadden Ave					
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	1	0	1	1	0	1

Volume Module:

Base Vol:	55	1198	122	142	558	86	109	488	55	79	321	248
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	1198	122	142	558	86	109	488	55	79	321	248
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	1198	122	142	558	86	109	488	55	79	321	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	1198	122	142	558	86	109	488	55	79	321	248
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	1198	122	142	558	86	109	488	55	79	321	248

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00
Lanes:	1.00	1.82	0.18	1.00	1.73	0.27	1.00	1.80	0.20	1.00	1.13	0.87
Final Sat.:	1600	3004	296	1600	2873	427	1600	2976	324	1600	1905	1395

Capacity Analysis Module:

Vol/Sat:	0.03	0.40	0.41	0.09	0.19	0.20	0.07	0.16	0.17	0.05	0.17	0.18
Crit Moves:			****	****			****					****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #8 Newhope St and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.754
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	C

\*\*\*\*\*

Street Name:	Newhope St						Edinger Ave					
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	1	0	2	1	0	2

Volume Module:

Base Vol:	99	1053	135	121	483	50	88	666	94	141	857	350
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:	99	1053	135	121	483	50	88	666	94	141	857	350
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:	99	1053	135	121	483	50	88	666	94	141	857	350
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	1053	135	121	483	50	88	666	94	141	857	350
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:	99	1053	135	121	483	50	88	666	94	141	857	350

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	1.77	0.23	1.00	1.81	0.19	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2936	364	1600	3000	300	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.36	0.37	0.08	0.16	0.17	0.06	0.20	0.06	0.09	0.25	0.22
Crit Moves:			****	****			****				****	

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #9 Harbor Blvd and Garden Grove Blvd

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.867
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	172	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Garden Grove Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	2	0	2	1	0	2

Volume Module:

Base Vol:	372	1263	119	147	983	369	564	708	211	234	980	115
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:	372	1263	119	147	983	369	564	708	211	234	980	115
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:	372	1263	119	147	983	369	564	708	211	234	980	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	372	1263	119	147	983	369	564	708	211	234	980	115
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:	372	1263	119	147	983	369	564	708	211	234	980	115

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	2.31	0.69	2.00	2.68	0.32
Final Sat.:	1600	5100	1600	1600	5100	1600	3200	3898	1102	3200	4496	504

Capacity Analysis Module:

Vol/Sat:	0.23	0.25	0.07	0.09	0.19	0.23	0.18	0.18	0.19	0.07	0.22	0.23
Crit Moves:	****					****	****					****

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Future Year 2035  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #10 Harbor Blvd and WB SR-22 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.579  
Loss Time (sec): 0 Average Delay (sec/veh): 23.3  
Optimal Cycle: 54 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound SR-22 Off-Ramp					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	2	1	0	0	1	0	1

Volume Module:

Base Vol:	107	1031	0	0	1172	38	74	0	79	410	89	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:	107	1031	0	0	1172	38	74	0	79	410	89	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:	107	1031	0	0	1172	38	74	0	79	410	89	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	1031	0	0	1172	38	74	0	79	410	89	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:	107	1031	0	0	1172	38	74	0	79	410	89	116

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.94	0.94	0.94
Lanes:	1.00	3.00	0.00	0.00	2.91	0.09	0.48	0.00	0.52	1.59	0.25	1.16
Final Sat.:	1805	5187	0	0	4999	162	834	0	890	2829	452	2082

Capacity Analysis Module:

Vol/Sat:	0.06	0.20	0.00	0.00	0.23	0.23	0.09	0.00	0.09	0.14	0.20	0.06
Crit Moves:	****			****			****			****		
Green/Cycle:	0.10	0.51	0.00	0.00	0.40	0.40	0.15	0.00	0.15	0.31	0.34	0.34
Volume/Cap:	0.58	0.39	0.00	0.00	0.58	0.58	0.58	0.00	0.58	0.47	0.58	0.16
Delay/Veh:	47.4	15.3	0.0	0.0	23.6	23.6	42.6	0.0	42.6	28.5	27.9	23.1
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:	47.4	15.3	0.0	0.0	23.6	23.6	42.6	0.0	42.6	28.5	27.9	23.1
LOS by Move:	D	B	A	A	C	C	D	A	D	C	C	C
HCM2kAvgQ:	4	7	0	0	11	11	5	0	5	7	9	2

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Future Year 2035  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #11 Trask Ave and EB SR-22 On-Ramp
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.311
Loss Time (sec):      0           Average Delay (sec/veh):          8.8
Optimal Cycle:        33           Level Of Service:          A
*****

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Street Name:	Eastbound SR-22 On-Ramp						Trask Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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:	0	0	0	0	0	0	2	0	1	0	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	605	591	0	0	388	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	605	591	0	0	388	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	605	591	0	0	388	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	605	591	0	0	388	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	0	0	0	605	591	0	0	388	21

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	0.95	0.85
Lanes:	0.00	0.00	1.00	0.00	0.00	0.00	2.00	1.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	1900	0	0	0	3502	1900	0	1900	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.31	0.00	0.00	0.11	0.01
Crit Moves:								****			****	
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.62	1.00	0.00	0.00	0.38	0.38
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.31	0.00	0.00	0.28	0.03
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.1	0.0	0.0	21.4	19.3
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:	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.1	0.0	0.0	21.4	19.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	C	B
HCM2kAvgQ:	0	0	0	0	0	0	4	0	0	0	4	0

Note: Queue reported is the number of cars per lane.



Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #12 Harbor Blvd and Trask Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Trask Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	29	711	347	271	1031	35	114	563	431	105	95	700
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:	29	711	347	271	1031	35	114	563	431	105	95	700
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:	29	711	347	271	1031	35	114	563	431	105	95	700
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	711	347	271	1031	35	114	563	431	105	95	700
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:	29	711	347	271	1031	35	114	563	431	105	95	700

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	3400	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.14	0.22	0.17	0.20	0.02	0.07	0.17	0.27	0.07	0.03	0.44
Crit Moves:			****	****			****					****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #13 Harbor Blvd and Westminster Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.726
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Westminster Ave					
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	3	0	1	1	0	1	0

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Volume Module:

Base Vol:	225	1253	212	253	1199	202	157	594	28	175	841	193
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	1253	212	253	1199	202	157	594	28	175	841	193
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	1253	212	253	1199	202	157	594	28	175	841	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	225	1253	212	253	1199	202	157	594	28	175	841	193
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	1253	212	253	1199	202	157	594	28	175	841	193

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	2.57	0.43	1.00	3.00	1.00	1.00	2.86	0.14	1.00	3.00	1.00
Final Sat.:	1600	4305	695	1600	5100	1600	1600	4784	216	1600	5100	1600

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Capacity Analysis Module:

Vol/Sat:	0.14	0.29	0.31	0.16	0.24	0.13	0.10	0.12	0.13	0.11	0.16	0.12
Crit Moves:			****	****			****				****	

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Future Year 2035  
With Project

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

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*****
Intersection #14 Harbor Blvd and Hazard Ave
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.773
Loss Time (sec):      0           Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        82          Level Of Service:                C
*****

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Street Name:	Harbor Blvd						Hazard Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	1	1	0	1

Volume Module:

Base Vol:	410	1702	50	20	1310	144	75	74	315	27	108	12
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:	410	1702	50	20	1310	144	75	74	315	27	108	12
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:	410	1702	50	20	1310	144	75	74	315	27	108	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	410	1702	50	20	1310	144	75	74	315	27	108	12
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:	410	1702	50	20	1310	144	75	74	315	27	108	12

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	1.00	2.91	0.09	1.00	2.70	0.30	1.00	1.00	1.00	1.00	0.90	0.10
Final Sat.:	1600	4863	137	1600	4525	475	1600	1700	1600	1600	1440	160

Capacity Analysis Module:

Vol/Sat:	0.26	0.35	0.37	0.01	0.29	0.30	0.05	0.04	0.20	0.02	0.08	0.08
Crit Moves:	****					****			****	****		

Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #15 Harbor Blvd and 5th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.769
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						5th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	1	0	0	1	0	1

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Volume Module:

Base Vol:	103	1698	119	253	1088	183	121	198	46	51	267	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	1698	119	253	1088	183	121	198	46	51	267	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	1698	119	253	1088	183	121	198	46	51	267	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	1698	119	253	1088	183	121	198	46	51	267	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	1698	119	253	1088	183	121	198	46	51	267	165

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	1.00	2.80	0.20	1.00	2.57	0.43	1.00	0.81	0.19	1.00	1.00	1.00
Final Sat.:	1600	4686	314	1600	4309	691	1600	1298	302	1600	1700	1600

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Capacity Analysis Module:

Vol/Sat:	0.06	0.36	0.38	0.16	0.25	0.26	0.08	0.15	0.15	0.03	0.16	0.10
Crit Moves:			****	****			****				****	

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Future Year 2035  
With Project

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

\*\*\*\*\*  
Intersection #16 Harbor Blvd and 1st St  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.859  
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 162 Level Of Service: D  
\*\*\*\*\*

Street Name:	Harbor Blvd						1st Street					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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	3	2	0	2	1	0	2

Volume Module:

Base Vol:	173	1637	139	228	862	77	150	683	113	450	1204	235
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:	173	1637	139	228	862	77	150	683	113	450	1204	235
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:	173	1637	139	228	862	77	150	683	113	450	1204	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	173	1637	139	228	862	77	150	683	113	450	1204	235
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:	173	1637	139	228	862	77	150	683	113	450	1204	235

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.77	0.23	1.00	3.00	1.00	2.00	2.57	0.43	2.00	2.51	0.49
Final Sat.:	1600	4624	376	1600	5100	1600	3200	4319	681	3200	4216	784

Capacity Analysis Module:

Vol/Sat:	0.11	0.35	0.37	0.14	0.17	0.05	0.05	0.16	0.17	0.14	0.29	0.30
Crit Moves:			****	****			****					****

Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #17 Harbor Blvd and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.694
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						McFadden Ave					
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:	2	0	3	0	1		2	0	2	1	0	

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Volume Module:

Base Vol:	216	1695	80	111	1193	75	270	434	124	218	398	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:	216	1695	80	111	1193	75	270	434	124	218	398	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:	216	1695	80	111	1193	75	270	434	124	218	398	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	216	1695	80	111	1193	75	270	434	124	218	398	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:	216	1695	80	111	1193	75	270	434	124	218	398	130

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	2.00	3.00	1.00	2.00	2.82	0.18	1.00	1.56	0.44	1.00	1.51	0.49
Final Sat.:	3200	5100	1600	3200	4716	284	1600	2589	711	1600	2512	788

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Capacity Analysis Module:

Vol/Sat:	0.07	0.33	0.05	0.03	0.25	0.26	0.17	0.17	0.17	0.14	0.16	0.16
Crit Moves:	****			****			****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #18 Harbor Blvd and Edinger Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Edinger Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	3	0	1	2	0	3	0	1	2	0	2	1	0	2	0	3	0	1

Volume Module:

Base Vol:	143	1841	134	371	969	72	131	752	113	200	797	166
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:	143	1841	134	371	969	72	131	752	113	200	797	166
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:	143	1841	134	371	969	72	131	752	113	200	797	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	1841	134	371	969	72	131	752	113	200	797	166
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:	143	1841	134	371	969	72	131	752	113	200	797	166

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.61	0.39	2.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	3200	4373	627	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.36	0.08	0.12	0.19	0.05	0.04	0.17	0.18	0.06	0.16	0.10
Crit Moves:	****			****			****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #19 Harbor Blvd and Warner Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.726
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	C

\*\*\*\*\*

Street Name:	Harbor Blvd						Warner Ave					
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:	2	0	2	1	0	0	2	0	3	0	1	1

Volume Module:

Base Vol:	427	1836	165	166	645	93	96	618	196	110	1161	215
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:	427	1836	165	166	645	93	96	618	196	110	1161	215
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:	427	1836	165	166	645	93	96	618	196	110	1161	215
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	427	1836	165	166	645	93	96	618	196	110	1161	215
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:	427	1836	165	166	645	93	96	618	196	110	1161	215

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.75	0.25	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	4604	396	3200	5100	1600	3200	5100	1600	3200	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.13	0.40	0.42	0.05	0.13	0.06	0.03	0.12	0.12	0.03	0.23	0.13
Crit Moves:			****	****			****				****	

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #20 Harbor Blvd and Segerstrom Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.851
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	153	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Segerstrom Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	2	1	0	1	0	2	1	0	1	0	1	1	0	1	0	2	0	1

Volume Module:

Base Vol:	132	1970	65	100	892	47	88	432	137	110	913	495
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	1970	65	100	892	47	88	432	137	110	913	495
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	1970	65	100	892	47	88	432	137	110	913	495
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	1970	65	100	892	47	88	432	137	110	913	495
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	1970	65	100	892	47	88	432	137	110	913	495

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	2.00	2.90	0.10	1.00	2.85	0.15	1.00	1.52	0.48	1.00	2.00	1.00
Final Sat.:	3200	4847	153	1600	4760	240	1600	2530	770	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.41	0.42	0.06	0.19	0.20	0.06	0.17	0.18	0.07	0.27	0.31
Crit Moves:			****	****			****					****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #21 Harbor Blvd and MacArthur Blvd

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.860
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	162	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						MacArthur Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	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:	2	0	3	0	1	2	0	3	0	1	1	0	3	0	1

Volume Module:

Base Vol:	741	1646	122	139	948	215	148	484	224	111	1783	249
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:	741	1646	122	139	948	215	148	484	224	111	1783	249
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:	741	1646	122	139	948	215	148	484	224	111	1783	249
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	741	1646	122	139	948	215	148	484	224	111	1783	249
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:	741	1646	122	139	948	215	148	484	224	111	1783	249

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3200	5100	1600	3200	5100	1600	1600	5100	1600	1600	5100	1600

Capacity Analysis Module:

Vol/Sat:	0.23	0.32	0.08	0.04	0.19	0.13	0.09	0.09	0.14	0.07	0.35	0.16
Crit Moves:	****				****		****				****	

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #22 Harbor Blvd and Sunflower Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.823
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	129	Level Of Service:	D

\*\*\*\*\*

Street Name:	Harbor Blvd						Sunflower Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Split Phase			Split Phase					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	2	0	2	1	0	2	0	3	0	1	1	0	1	1	0

Volume Module:

Base Vol:	91	2139	144	104	1404	50	80	181	179	349	428	195
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	2139	144	104	1404	50	80	181	179	349	428	195
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	2139	144	104	1404	50	80	181	179	349	428	195
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	2139	144	104	1404	50	80	181	179	349	428	195
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	2139	144	104	1404	50	80	181	179	349	428	195

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	2.00	2.81	0.19	2.00	3.00	1.00	1.00	1.01	0.99	1.08	1.32	0.60
Final Sat.:	3200	4697	303	3200	5100	1600	1600	1709	1591	1722	2113	965

Capacity Analysis Module:

Vol/Sat:	0.03	0.46	0.48	0.03	0.28	0.03	0.05	0.11	0.11	0.20	0.20	0.20
Crit Moves:			****	****					****	****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #23 Harbor Blvd and South Coast Drive

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.608
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	B

\*\*\*\*\*

Street Name:	Harbor Blvd						South Coast Drive																		
Approach:	North Bound			South Bound			East Bound			West Bound															
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Protected						Protected						Protected												
Rights:	Include						Include						Include												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	3	1	1	2	0	4	0	1	1	0	0	1	1	2	0	2	0	1	2	0	2	0	1

Volume Module:

Base Vol:	367	2175	266	101	1678	138	16	43	376	369	829	216
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:	367	2175	266	101	1678	138	16	43	376	369	829	216
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:	367	2175	266	101	1678	138	16	43	376	369	829	216
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	367	2175	266	101	1678	138	16	43	376	369	829	216
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:	367	2175	266	101	1678	138	16	43	376	369	829	216

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	0.21	1.79	2.00	2.00	1.00
Final Sat.:	3200	6800	1600	3200	6800	1600	1600	328	2872	3200	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.32	0.17	0.03	0.25	0.09	0.01	0.13	0.13	0.12	0.24	0.14
Crit Moves:	****			****			****			****		

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Future Year 2035  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #24 Harbor Blvd and NB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.646  
Loss Time (sec): 0 Average Delay (sec/veh): 18.8  
Optimal Cycle: 64 Level of Service: B  
\*\*\*\*\*

Street Name:	Harbor Blvd						Westbound I-405 Off Ramp					
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:	0	0	4	0	0	4	0	0	0	1	0	1

Volume Module:

Base Vol:	0	2056	0	0	2198	0	0	0	0	853	0	803
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	2056	0	0	2198	0	0	0	0	853	0	803
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	2056	0	0	2198	0	0	0	0	853	0	803
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2056	0	0	2198	0	0	0	0	853	0	803
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	2056	0	0	2198	0	0	0	0	853	0	803

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.90	1.00	0.90
Lanes:	0.00	4.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	1.52	0.00	1.48
Final Sat.:	0	6916	0	0	6916	0	0	0	0	2602	0	2550

Capacity Analysis Module:

Vol/Sat:	0.00	0.30	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.33	0.00	0.31
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.49	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Volume/Cap:	0.00	0.60	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.65	0.00	0.62
Delay/Veh:	0.0	18.7	0.0	0.0	19.3	0.0	0.0	0.0	0.0	18.6	0.0	18.1
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:	0.0	18.7	0.0	0.0	19.3	0.0	0.0	0.0	0.0	18.6	0.0	18.1
LOS by Move:	A	B	A	A	B	A	A	A	A	B	A	B
HCM2kAvgQ:	0	13	0	0	14	0	0	0	0	13	0	12

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Future Year 2035  
With Project

Level of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #25 Harbor Blvd and SB I-405 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.796  
Loss Time (sec): 0 Average Delay (sec/veh): 25.0  
Optimal Cycle: 112 Level of Service: C  
\*\*\*\*\*

Street Name:	Harbor Blvd						Eastbound I-405 Off-Ramp					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
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:	0	0	3	0	0	4	0	0	0	1	0	0

Volume Module:												
Base Vol:	0	1815	0	0	2387	0	245	0	728	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	1815	0	0	2387	0	245	0	728	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1815	0	0	2387	0	245	0	728	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1815	0	0	2387	0	245	0	728	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1815	0	0	2387	0	245	0	728	0	0	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	4.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	6916	0	3502	0	1615	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.35	0.00	0.00	0.35	0.00	0.07	0.00	0.45	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.43	0.00	0.00	0.43	0.00	0.57	0.00	0.57	0.00	0.00	0.00
Volume/Cap:	0.00	0.81	0.00	0.00	0.80	0.00	0.12	0.00	0.80	0.00	0.00	0.00
Delay/Veh:	0.0	26.9	0.0	0.0	26.0	0.0	10.1	0.0	22.0	0.0	0.0	0.0
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:	0.0	26.9	0.0	0.0	26.0	0.0	10.1	0.0	22.0	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	B	A	C	A	A	A
HCM2kAvgQ:	0	20	0	0	19	0	2	0	19	0	0	0

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #26 Fairview St and 17th St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	1.112
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

\*\*\*\*\*

Street Name:	Fairview Street						17th Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	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:	2	0	2	0	1	2	0	2	0	1	1	0	3	0	1	1	0	2	1	0

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Volume Module:

Base Vol:	268	1550	140	413	1401	134	314	592	163	204	865	529
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:	268	1550	140	413	1401	134	314	592	163	204	865	529
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:	268	1550	140	413	1401	134	314	592	163	204	865	529
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	268	1550	140	413	1401	134	314	592	163	204	865	529
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:	268	1550	140	413	1401	134	314	592	163	204	865	529

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	3400	1600	3200	3400	1600	1600	5100	1600	1600	3400	1600

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Capacity Analysis Module:

Vol/Sat:	0.08	0.46	0.09	0.13	0.41	0.08	0.20	0.12	0.10	0.13	0.25	0.33
Crit Moves:	****			****			****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #27 Fairview St and 1st St

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	1.080
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

\*\*\*\*\*

Street Name:	Fairview Street						1st Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	336	1531	81	134	1346	525	255	875	241	133	1390	151
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	336	1531	81	134	1346	525	255	875	241	133	1390	151
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:	336	1531	81	134	1346	525	255	875	241	133	1390	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	336	1531	81	134	1346	525	255	875	241	133	1390	151
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:	336	1531	81	134	1346	525	255	875	241	133	1390	151

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	2.16	0.84	1.00	2.35	0.65	1.00	2.71	0.29
Final Sat.:	1600	5100	1600	1600	3653	1347	1600	3963	1037	1600	4530	470

Capacity Analysis Module:

Vol/Sat:	0.21	0.30	0.05	0.08	0.37	0.39	0.16	0.22	0.23	0.08	0.31	0.32
Crit Moves:	****					****	****					****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Fairview St and McFadden Ave

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.700
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	C

\*\*\*\*\*

Street Name:	Fairview Street				McFadden Ave										
Approach:	North Bound		South Bound		East Bound		West Bound								
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected		Protected		Protected		Protected								
Rights:	Include		Include		Include		Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	1	1	0

Volume Module:

Base Vol:	182	1607	129	119	1122	235	195	449	129	97	465	140
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:	182	1607	129	119	1122	235	195	449	129	97	465	140
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:	182	1607	129	119	1122	235	195	449	129	97	465	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	182	1607	129	119	1122	235	195	449	129	97	465	140
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:	182	1607	129	119	1122	235	195	449	129	97	465	140

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	1.55	0.45	1.00	1.54	0.46
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	2586	714	1600	2560	740

Capacity Analysis Module:

Vol/Sat:	0.11	0.32	0.08	0.07	0.22	0.15	0.12	0.17	0.18	0.06	0.18	0.19
Crit Moves:	****		****		****		****		****		****	

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Future Year 2035  
With Project

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #29 Fairview St and Edinger Ave

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.794
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	111	Level Of Service:	C

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Street Name:	Fairview St						Edinger Ave					
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:	2	0	2	1	0	0	2	0	2	1	0	0

Volume Module:

Base Vol:	248	1527	147	282	844	163	169	607	102	208	1121	340
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:	248	1527	147	282	844	163	169	607	102	208	1121	340
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:	248	1527	147	282	844	163	169	607	102	208	1121	340
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	248	1527	147	282	844	163	169	607	102	208	1121	340
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:	248	1527	147	282	844	163	169	607	102	208	1121	340

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	2.00	2.74	0.26	2.00	2.51	0.49	2.00	2.57	0.43	2.00	2.30	0.70
Final Sat.:	3200	4578	422	3200	4223	777	3200	4309	691	3200	3883	1117

Capacity Analysis Module:

Vol/Sat:	0.08	0.33	0.35	0.09	0.20	0.21	0.05	0.14	0.15	0.07	0.29	0.30
Crit Moves:			****	****			****					****

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## **TRAFFIX WORKSHEETS**

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YEAR 2035 – WITH PROJECT – MITIGATION  
MEASURES

Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #26 Fairview Street and 17th Street

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.841
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	143	Level Of Service:	D

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Street Name:	Fairview Street						17th Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	2	0	3	0	1	2	0	2	0	1	1	0	3	0	1	1	0	2	1	0

Volume Module:												
Base Vol:	143	1327	252	553	1542	129	279	1025	227	228	325	269
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:	143	1327	252	553	1542	129	279	1025	227	228	325	269
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:	143	1327	252	553	1542	129	279	1025	227	228	325	269
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	1327	252	553	1542	129	279	1025	227	228	325	269
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:	143	1327	252	553	1542	129	279	1025	227	228	325	269

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	5100	1600	3200	3400	1600	1600	5100	1600	1600	3400	1600

Capacity Analysis Module:												
Vol/Sat:	0.04	0.26	0.16	0.17	0.45	0.08	0.17	0.20	0.14	0.14	0.10	0.17
Crit Moves:	****				****		****					****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #26 Fairview Street and 17th Street

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Cycle (sec):	100	Critical Vol./Cap.(X):	1.023
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

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Street Name:	Fairview Street						17th Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	2	0	3	0	1	2	0	2	0	1	1	0	3	0	1	1	0	2	1	0

Volume Module:

Base Vol:	268	1550	140	413	1401	134	314	592	163	204	865	529
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:	268	1550	140	413	1401	134	314	592	163	204	865	529
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:	268	1550	140	413	1401	134	314	592	163	204	865	529
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	268	1550	140	413	1401	134	314	592	163	204	865	529
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:	268	1550	140	413	1401	134	314	592	163	204	865	529

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3200	5100	1600	3200	3400	1600	1600	5100	1600	1600	3400	1600

Capacity Analysis Module:

Vol/Sat:	0.08	0.30	0.09	0.13	0.41	0.08	0.20	0.12	0.10	0.13	0.25	0.33
Crit Moves:	****			****			****			****		****

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #27 Fairview St and 1st St

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.785
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	106	Level Of Service:	C

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Street Name:	Fairview Street						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	2	1	0

Volume Module:

Base Vol:	157	1586	130	140	1497	99	465	1283	289	103	350	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:	157	1586	130	140	1497	99	465	1283	289	103	350	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:	157	1586	130	140	1497	99	465	1283	289	103	350	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	157	1586	130	140	1497	99	465	1283	289	103	350	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:	157	1586	130	140	1497	99	465	1283	289	103	350	137

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.45	0.55	1.00	2.16	0.84
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	4118	882	1600	3650	1350

Capacity Analysis Module:

Vol/Sat:	0.10	0.31	0.08	0.09	0.29	0.06	0.29	0.31	0.33	0.06	0.10	0.10
Crit Moves:	****			****			****			****		

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Future Year 2035  
With Project

Level Of Service Computation Report

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

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Intersection #27 Fairview St and 1st St

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Cycle (sec):	100	Critical Vol./Cap.(X):	1.019
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

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Street Name:	Fairview Street						1st Street								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	2	1	0

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Volume Module:

Base Vol:	336	1531	81	134	1346	525	255	875	241	133	1390	151
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	336	1531	81	134	1346	525	255	875	241	133	1390	151
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:	336	1531	81	134	1346	525	255	875	241	133	1390	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	336	1531	81	134	1346	525	255	875	241	133	1390	151
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:	336	1531	81	134	1346	525	255	875	241	133	1390	151

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	2.35	0.65	1.00	2.71	0.29
Final Sat.:	1600	5100	1600	1600	5100	1600	1600	3963	1037	1600	4530	470

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Capacity Analysis Module:

Vol/Sat:	0.21	0.30	0.05	0.08	0.26	0.33	0.16	0.22	0.23	0.08	0.31	0.32
Crit Moves:	****					****	****					****

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