

**Fullerton-Roosevelt
An Olson Company Residential Subdivision
in Fullerton, California**

Traffic Technical Memorandum

Prepared for:
Comprehensive Planning Services
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License #: 1433/Expiration December 31, 2014

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revision



Project Description

The Olson Company proposes to redevelop an existing church site located east of Euclid Street and north of the Fullerton Relief Channel in the city of Fullerton. The Fullerton-Roosevelt subdivision is located at the south end of Roosevelt Avenue (a cul-de-sac). It is bounded on the south by the Fullerton Relief Channel. This project is bounded on the west by commercial lots along Euclid St. The project consists of 19 single-family dwelling units; 14 units will have access from the south end of Roosevelt Ave. 5 units will be located on the west side of Jefferson Ave.

The project will replace the existing Redeemer Alliance Church. The church site includes 2 buildings containing approximately 8700 ft.²

The project is expected to be built out in 2014.

The project location is shown on Figure 1, and a project site plan is shown as Figure 2.

Existing Circulation System

Roosevelt Ave. is a 35 ft wide residential street located between Euclid Street to the west and Jefferson Ave. to the east. Roosevelt Ave. can be accessed from Euclid Ave. via West Ave. (160 ft north of the project). The speed limit on Roosevelt Ave. is a prima facie 25 mph.

Jefferson Ave. is a 35 ft wide residential street. Jefferson Ave. can be accessed from Maplewood Ave. which can be accessed from Woods Ave.. The speed limit on Jefferson Ave. is a prima facie 25 mph.

Euclid Street is designated as a Primary Arterial between Valencia Drive and Orangethorpe Ave.. It has 2 northbound lanes, 2 southbound lanes, and a two-way left turn lane. It is 63 ft wide with an 80 – 84 ft right-of-way. Curbside parking is allowed only in the northbound direction. The speed limit on Euclid Street is 35 mph.

Figure 3 shows existing daily traffic volumes in the vicinity of the project.

Project Trip Generation and Trip Distribution

The project consists of 19 single-family dwelling units; 14 of these will be taking access from Roosevelt Ave. and 5 will take access from Jefferson Ave.

The project will replace the existing Redeemer Alliance Church which consists of 2 buildings. The main building contains the church sanctuary of 4500 ft.² and an administrative office of 424 ft.².

The second building contains classroom space of 3780 ft.². During weekdays this space is primarily used for church related activities such as choir practice and Bible study. For the trip generation analysis, this space has been analyzed as a church annex.

Trip generation for the existing and proposed site uses have been calculated using the ITE trip generation rates from the ITE Trip Generation Manual, 9th Edition.

The proposed project will generate 181 daily trips, with 14 trips in the a.m. peak hour and 19 trips in the p.m. peak hour. It replaces the existing project which is estimated to generate 80 daily trips, with 5 trips in the a.m. peak hour and one trip in the p.m. peak hour. The project will generate a net increase of 101 daily trips, 9 a.m. peak hour trips and 18 p.m. peak hour trips.

The project trip distribution is shown as Figure 4. Approximately 30% of the project generated trips will be taking access to the circulation system on Jefferson Avenue, with 70% taking access on Roosevelt Ave.. The project trip distribution assumptions shown on Figure 3 have been approved by the city traffic engineering consultant.

Future Daily Traffic Volumes

Future daily traffic volumes at year of project build out, 2014, are shown on the table below. This table shows future daily traffic volumes at 2 intersections where traffic counts were taken recently. These are Euclid at West Ave. and Maplewood Ave. at Woods Ave.

Roosevelt-Fullerton Residential Subdivision				
Future Daily Traffic-2014				
Segment	Existing	2014	Project traffic	2014 with Project
Euclid s/b at West	19470	19665	5	19670
Euclid n/b at West	19231	19423	35	19458
West w/b at Euclid	484	484	40	524
West e/b at Euclid	303	303	0	303
Woods s/b at Maplewood	686	686	5	691
Woods n/b at Maplewood	703	703	0	703
Maplewood w/b at Woods	117	117	0	117
Maplewood e/b at Woods	299	299	5	304

In 2014, it is assumed there will be a growth in traffic on Euclid St. of 1%. The other streets, including West Ave., Maplewood Ave., and Woods Ave. are residential streets in buildout areas and are not expected to experience background traffic growth.

The table shows the additional daily traffic generated by the project distributed to the 2 intersections based on the distribution factors shown on Figure 3. The table also shows the cumulative daily traffic for 2014 with the additional traffic generated by the project.

The project will add the most traffic on West Ave., east of Euclid St. On a two-way basis, 80 new daily trips will be added to this segment. In the a.m. peak hour, 7 new two-way trips will be added to this segment. In the p.m. peak hour, 14 new two-way trips will be added to this segment.

On Euclid St., the project will add 70 new daily trips. Nominal additional trips will be added on other streets segments within the vicinity of the project. The additional traffic generated by the project will not have a significant traffic impact on the streets and intersections providing access to the project site.

Project Parking Requirements

Parking requirements for the project are based on the proposed Roosevelt Fullerton Specific Plan (draft October 2013). The specific plan proposes:

- Garage: 38 spaces (2 per unit)
- Driveways: 38 spaces (2 per unit)
- Guest: 6 spaces. All 6 guest parking spaces will be located in common areas.
- Total Spaces: 82
- Spaces/Unit 4.32

For comparison, Table 15.17.050.E of the City of Fullerton Municipal Code requires 2 garage spaces for single family homes with under 5 bedrooms. This would result in a total off street parking requirement of 50 spaces with a ratio of 2 spaces/unit.

The total of 82 parking spaces proposed by the specific plan exceeds the parking requirement pursuant to either Table 15.17.050.E of the Municipal Code.

Additionally, 10 parking spaces will be provided west of the project site cul-de-sac as an existing parking easement for a commercial property at 614 S. Euclid. These additional parking spaces are not included in the count of 82 on-site parking spaces.

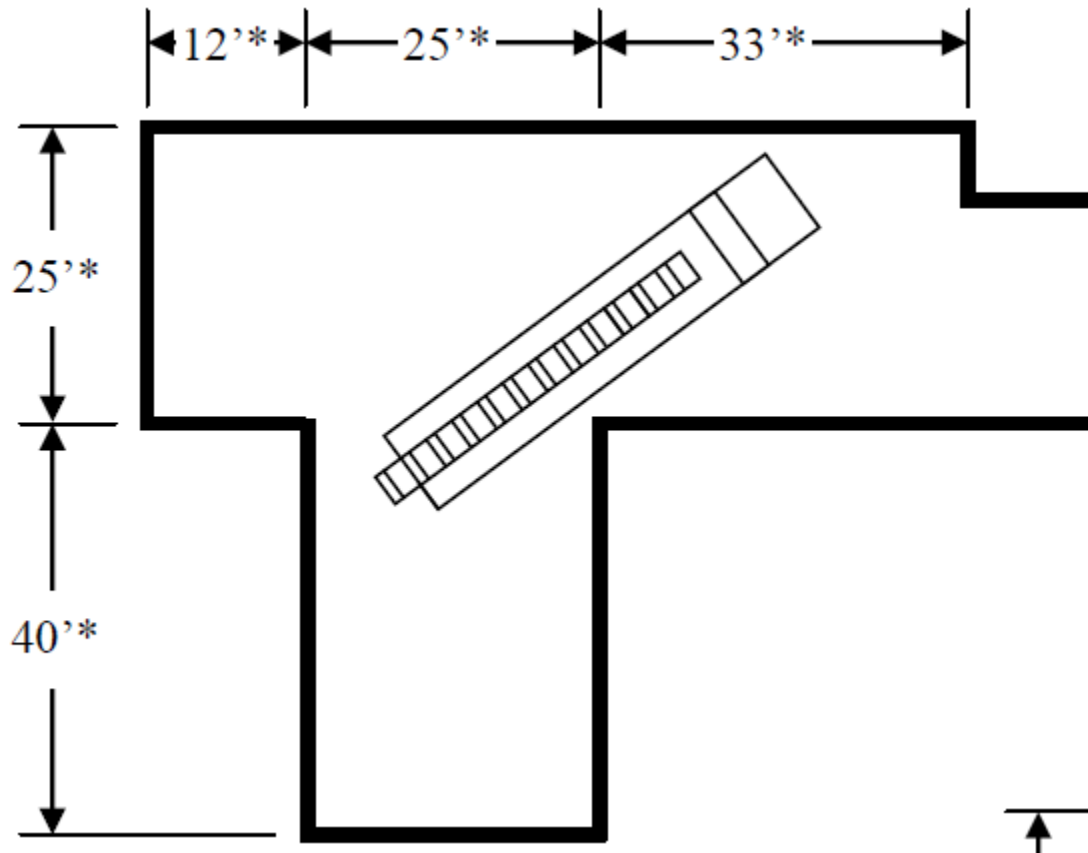
The total number of on-site parking spaces exceeds the code requirement of 50 spaces by 32 spaces. Consequently, potential impacts from spillover parking to the project's internal vehicular circulation will not be significant.

Emergency Vehicle Access

An emergency vehicle turnaround is required for the project private drive taking access from Roosevelt St. A turnaround is defined as a roadway, unobstructed by parking, which allows for a safe opposite change in direction for emergency equipment. Design of such area may be a hammerhead/T or terminus bulb.

A Hammerhead is defined as a roadway that provides a "T" shaped, three-point turnabout space for emergency equipment, being no narrower than the road that serves it.

The Orange County Fire Department provides the following standards for a Hammerhead:



NOTE: Parking is not permitted in any of these hammerheads at the dimensions shown.

* Wherever possible, increase this dimension by five feet.

The project site plan provides a Hammerhead near the southern terminus of the private drive accessing Roosevelt Ave. The Hammerhead is consistent with design standards.

Summary of Findings

The Olson Company proposes to redevelop an existing church site located east of Euclid Street and North of the Fullerton Relief Channel in the city of Fullerton. The

project consists of 19 single-family dwelling units; 14 units will have access from the south end of Roosevelt Ave. 5 units will be located on the west side of Jefferson Ave.

The project is expected to be built out in 2014.

The proposed project will generate 181 daily trips, with 14 trips in the a.m. peak hour and 19 trips in the p.m. peak hour. It replaces the existing project which is estimated to generate 80 daily trips, with 5 trips in the a.m. peak hour and one trip in the p.m. peak hour. The project will generate a net increase of 101 daily trips, 9 a.m. peak hour trips and 18 p.m. peak hour trips.

The project will add the most traffic on West Ave., east of Euclid St. On a two-way basis, 80 new daily trips will be added to this segment. In the a.m. peak hour, 7 new two-way trips will be added to this segment. In the p.m. peak hour, 14 new two-way trips will be added to this segment.

On Euclid St., the project will add 70 new daily trips. Nominal additional trips will be added on other streets segments within the vicinity of the project.

The additional traffic generated by the project will not have a significant traffic impact on the streets and intersections providing access to the project site.

Parking requirements for the project are based on the proposed Roosevelt Fullerton Specific Plan (draft October 2013). The specific plan proposes:

- Garage: 38 spaces (2 per unit)
- Driveways: 38 spaces (2 per unit)
- Guest: 6 spaces. All 6 guest parking spaces will be located in common areas.
- Total Spaces: 82
- Spaces/Unit 4.32

For comparison, Table 15.17.050.E of the City of Fullerton Municipal Code requires 2 garage spaces for single family homes with under 5 bedrooms. This would result in a total off street parking requirement of 50 spaces with a ratio of 2 spaces/unit.

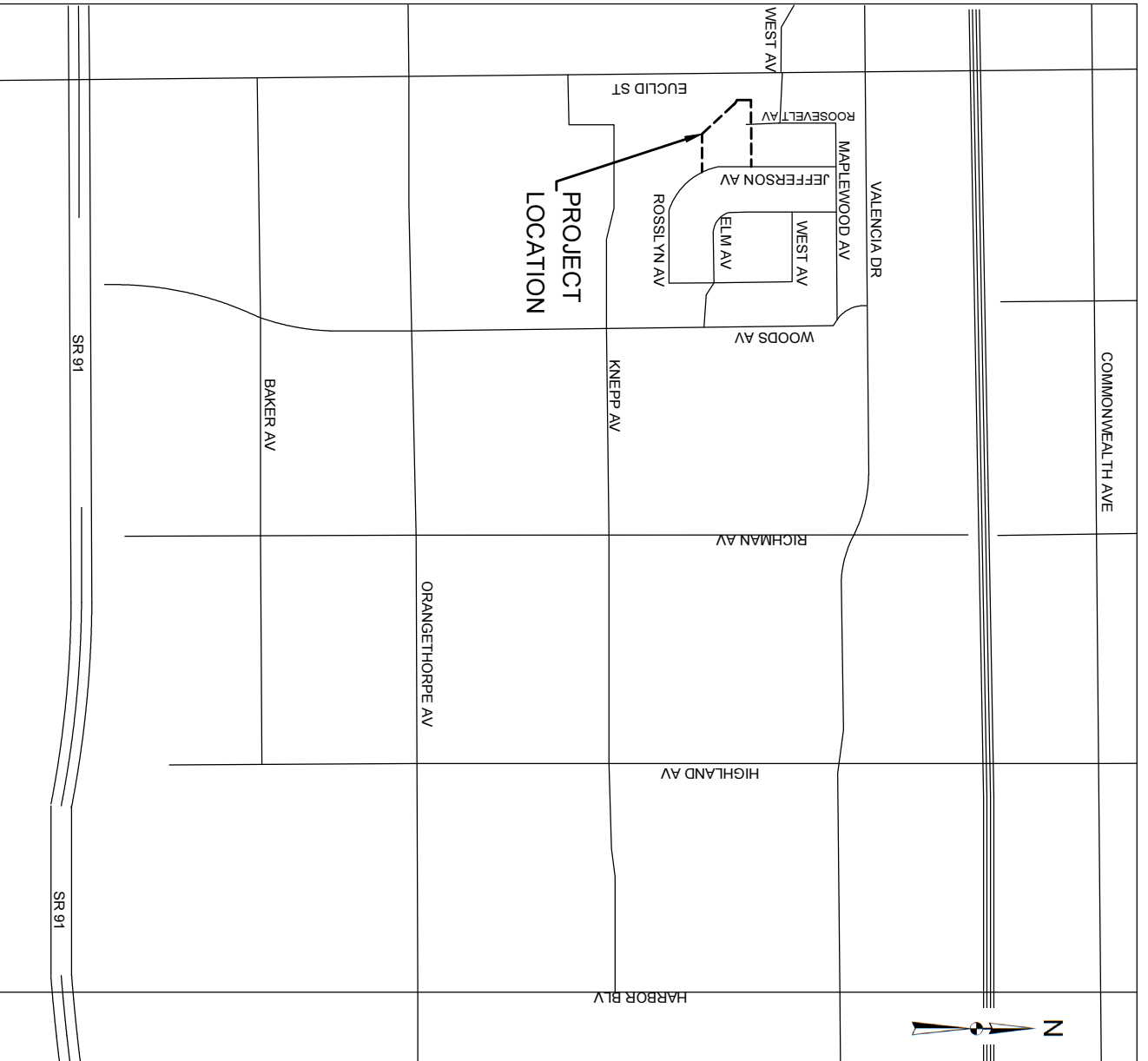
The total of 82 parking spaces proposed by the specific plan exceeds the parking requirement pursuant to either Table 15.17.050.E or 15.20.060.A of the Municipal Code.

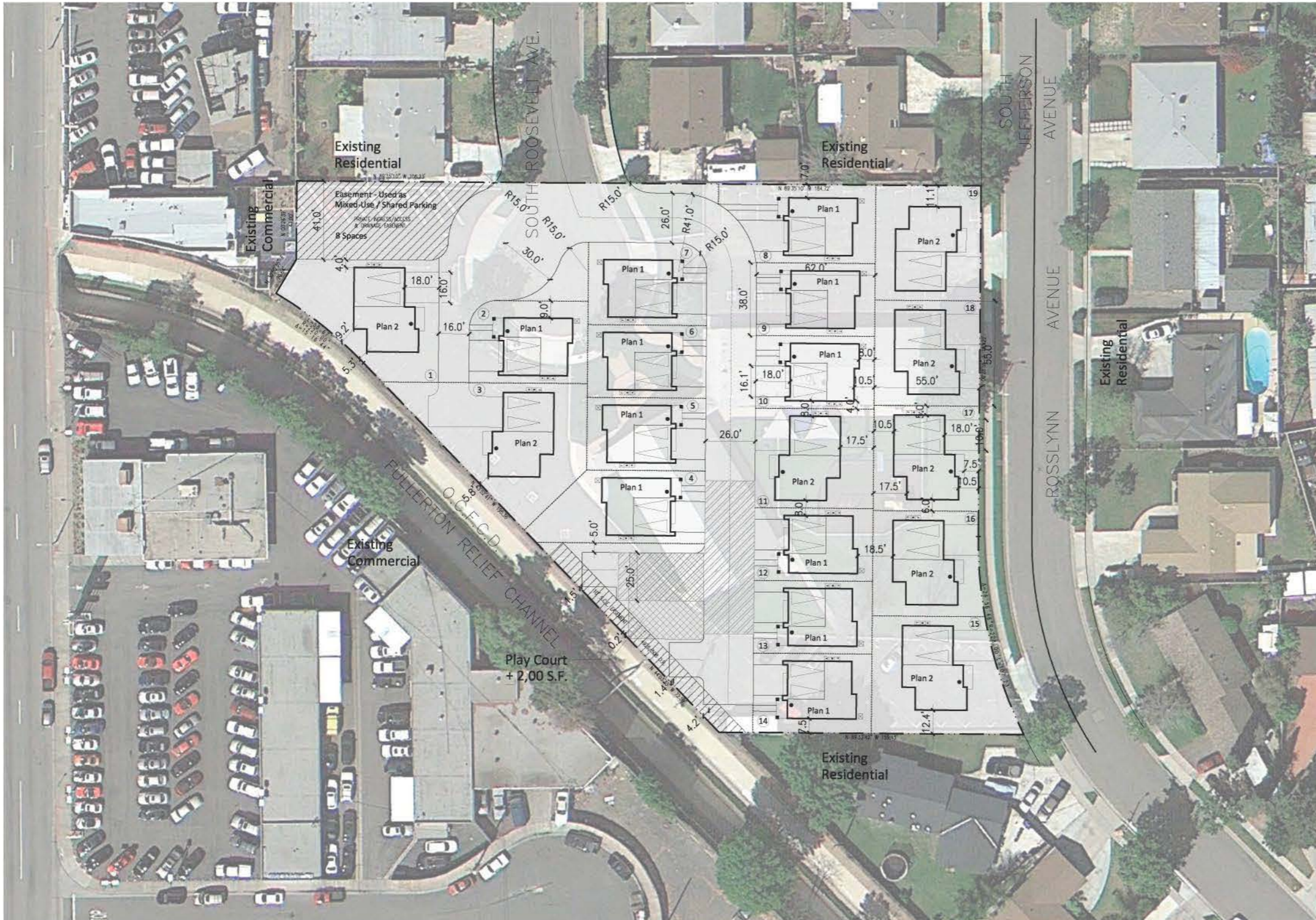
Additionally, 10 parking spaces will be provided west of the project site cul-de-sac as an existing parking easement for a commercial property at 614 S. Euclid. These additional parking spaces are not included in the count of 82 on-site parking spaces.

The total number of on-site parking spaces exceeds the code requirement of 61 spaces by 21 spaces. Consequently, potential impacts from spillover parking to the project's internal vehicular circulation will not be significant.

An emergency vehicle turnaround is required for the project private drive taking access from Roosevelt St. The project site plan provides a Hammerhead near the southern terminus of the private drive accessing Roosevelt Ave. The Hammerhead is consistent with design standards.

FIGURE 1: LOCATION MAP
 ROOSEVELT FULLERTON
 RESIDENTIAL SUBDIVISION
 THE OLSON COMPANY





Project Summary

- Total Site Area: 1.53 Acres ±
- Total Units: 19 Homes
 - (11) Plan 1 - 38' x 60' Lots
 - (8) Plan 2 - 55' x 55' Lots
- Net Density: 12.4 Homes per Acre
- Parking: 88 Spaces Total (4.63 per home)
 - Garage: 38 Spaces
 - Driveways: 38 Spaces (2 sp/drive)
 - Head In: 4 Spaces
 - Mixed Use Easement: 8 Spaces

Product Notes

- Typical 2 Story SFD
- 2 Garage Spaces per Home
- (11) Plan 1
 - 38' x 62' Lots
 - 1,572 S.F.
 - 3 Bdrm. / 2.5 Ba.
 - 19' x 19' Garage
- (8) Plan 2
 - 55' x 55' Lots
 - 1,914 S.F.
 - 4 Bdrm. / 3 Ba.
 - 20' x 26' Garage
 - Lot 11 is 53' x 55'

- Notes:
1. Site plan is for conceptual purposes only.
 2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
 3. Base information per civil engineer.
 4. Civil engineer to verify all setbacks and grading information.
 5. Building Footprints might change due to the final design elevation style.
 6. Open space area is subject to change due to the balcony design of the elevation.
 7. Building setbacks are measured from property lines to building foundation lines.

Conceptual Site Plan

Fullerton - Roosevelt
Fullerton, CA
The Olson Company

WILLIAM HEZMALHALCH ARCHITECTS, INC. © 2013

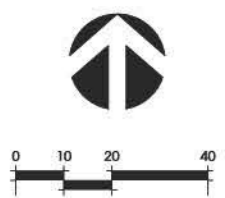


Figure 2

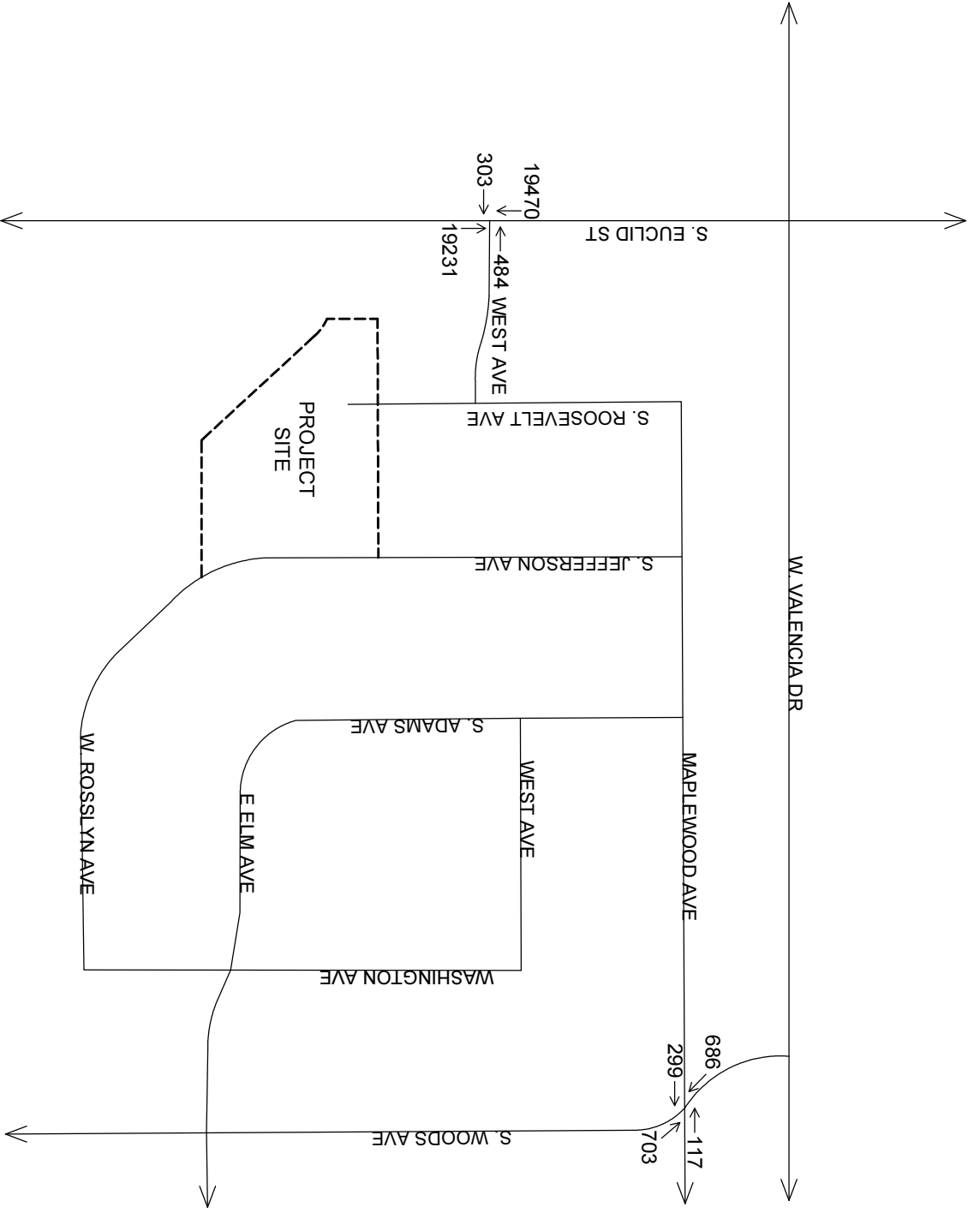


FIGURE 3 - EXISTING (2013) DAILY TRAFFIC VOLUME
ROOSEVELT FULLERTON
RESIDENTIAL SUBDIVISION
THE OLSON COMPANY

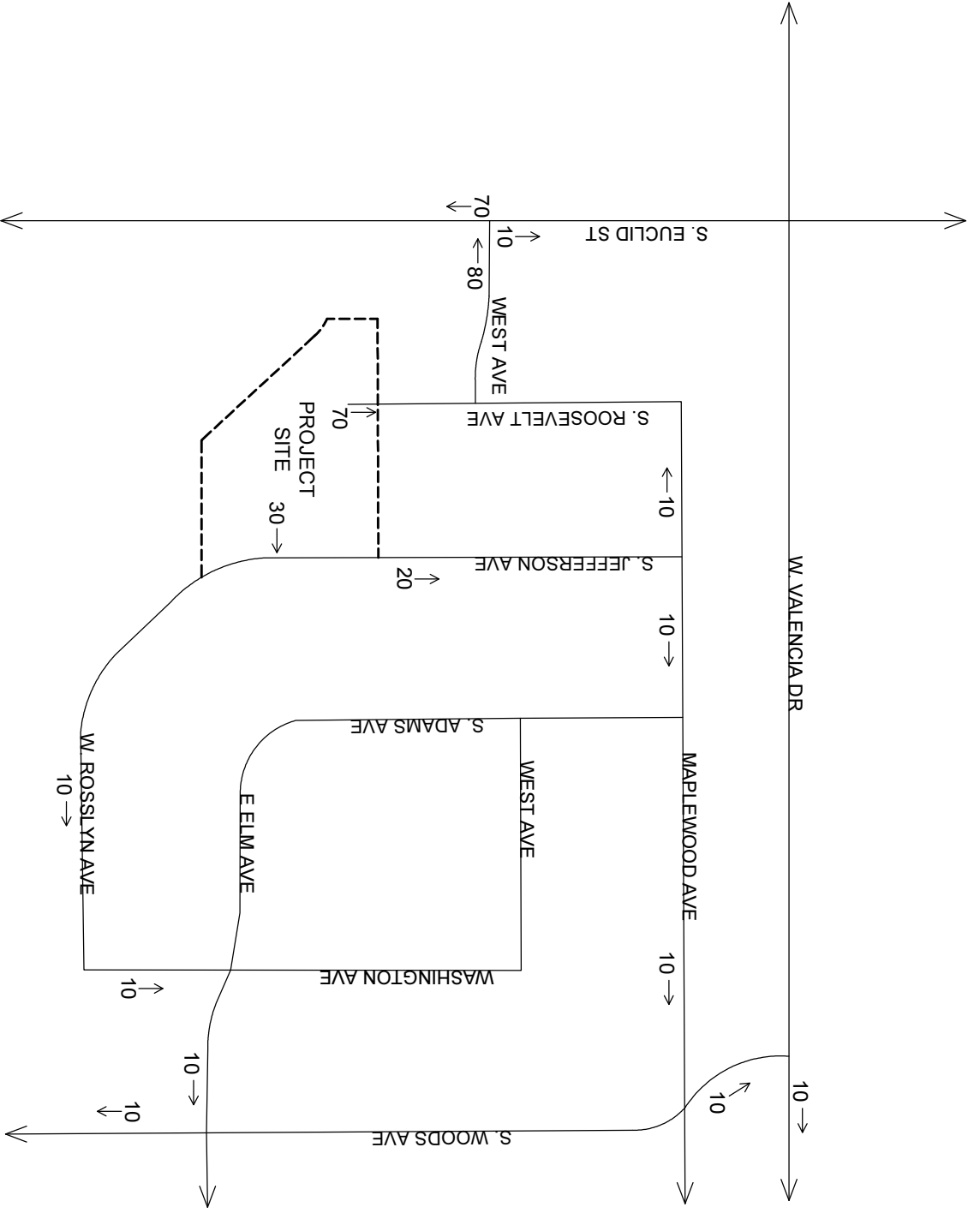


FIGURE 4 - PROJECT TRIP DISTRIBUTION
ROOSEVELT FULLERTON
RESIDENTIAL SUBDIVISION
THE OLSON COMPANY

XX → % PROJECT TRIPS, TWO WAY

Traffic Counts

City of Fullerton
 N/S: Woods Avenue
 E/W: Maplewood Avenue
 24 Hour Entering Volume Count

FLNWOMAEW
 Site Code: 054-13307
 Date Start: 15-Aug-13
 Date End: 15-Aug-13

Start Time	15-Aug-13 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	9			0	1				
12:15		0	7			0	1				
12:30		0	5			0	3				
12:45		1	3	1	24	1	1	1	6	2	30
01:00		1	2			1	1				
01:15		0	2			0	4				
01:30		0	3			0	1				
01:45		1	5	2	12	0	2	1	8	3	20
02:00		0	3			0	2				
02:15		0	6			1	1				
02:30		0	7			0	1				
02:45		0	5	0	21	0	2	1	6	1	27
03:00		1	2			0	0				
03:15		0	5			0	5				
03:30		0	3			0	1				
03:45		1	7	2	17	0	2	0	8	2	25
04:00		0	6			0	5				
04:15		2	12			0	0				
04:30		1	4			2	1				
04:45		0	8	3	30	1	2	3	8	6	38
05:00		0	4			2	1				
05:15		1	7			1	2				
05:30		1	5			2	3				
05:45		2	2	4	18	0	4	5	10	9	28
06:00		2	6			0	1				
06:15		0	4			1	4				
06:30		4	9			2	3				
06:45		2	2	8	21	2	1	5	9	13	30
07:00		2	4			2	2				
07:15		7	3			1	1				
07:30		6	7			2	0				
07:45		7	1	22	15	3	0	8	3	30	18
08:00		7	5			0	0				
08:15		4	3			1	2				
08:30		9	2			3	1				
08:45		9	3	29	13	2	2	6	5	35	18
09:00		6	1			2	2				
09:15		3	1			0	0				
09:30		4	4			0	0				
09:45		4	2	17	8	1	2	3	4	20	12
10:00		3	1			1	0				
10:15		2	1			2	0				
10:30		2	2			3	0				
10:45		4	3	11	7	3	1	9	1	20	8
11:00		1	3			3	0				
11:15		3	0			3	0				
11:30		1	0			0	0				
11:45		5	1	10	4	1	0	7	0	17	4
Total		109	190	109	190	49	68	49	68	158	258
Combined Total		299		299		117		117		416	
AM Peak		08:00				10:30					
Vol.		29				12					
P.H.F.		0.806				1.000					
PM Peak			04:00				03:15				
Vol.			30				13				
P.H.F.			0.625				0.650				
Percentage		36.5%	63.5%			41.9%	58.1%				
ADT/AADT		ADT 416		AADT 416							

City of Fullerton
 N/S: Euclid Street
 E/W: West Avenue
 24 Hour Entering Volume Count

FLNEUWENS
 Site Code: 054-13307
 Date Start: 15-Aug-13
 Date End: 15-Aug-13

Start Time	15-Aug-13 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		51	248			48	259				
12:15		33	223			45	313				
12:30		29	270			31	265				
12:45		36	281	149	1022	19	270	143	1107	292	2129
01:00		27	236			19	240				
01:15		25	265			24	233				
01:30		23	328			19	255				
01:45		24	302	99	1131	20	276	82	1004	181	2135
02:00		17	320			17	285				
02:15		14	302			12	294				
02:30		18	341			20	252				
02:45		19	342	68	1305	19	332	68	1163	136	2468
03:00		15	345			14	388				
03:15		18	337			16	374				
03:30		22	306			20	339				
03:45		18	330	73	1318	25	336	75	1437	148	2755
04:00		19	347			16	286				
04:15		20	350			20	306				
04:30		22	375			44	294				
04:45		37	394	98	1466	53	323	133	1209	231	2675
05:00		44	416			61	342				
05:15		50	392			99	422				
05:30		91	391			120	315				
05:45		110	391	295	1590	150	354	430	1433	725	3023
06:00		108	425			160	337				
06:15		132	377			208	305				
06:30		170	345			242	272				
06:45		204	327	614	1474	294	250	904	1164	1518	2638
07:00		210	343			337	275				
07:15		306	323			370	241				
07:30		332	259			405	235				
07:45		325	203	1173	1128	403	213	1515	964	2688	2092
08:00		277	197			367	200				
08:15		284	189			354	212				
08:30		258	202			389	174				
08:45		238	157	1057	745	322	186	1432	772	2489	1517
09:00		239	175			268	182				
09:15		223	162			300	178				
09:30		259	168			280	150				
09:45		266	160	987	665	279	112	1127	622	2114	1287
10:00		250	152			260	108				
10:15		250	102			247	111				
10:30		241	111			255	77				
10:45		228	109	969	474	264	72	1026	368	1995	842
11:00		274	97			253	80				
11:15		225	80			262	63				
11:30		250	77			238	68				
11:45		252	76	1001	330	268	60	1021	271	2022	601
Total		6583	12648	6583	12648	7956	11514	7956	11514	14539	24162
Combined Total		19231		19231		19470		19470		38701	
AM Peak		07:15				07:15					
Vol.		1240				1545					
P.H.F.		0.934				0.954					
PM Peak			05:15				03:00				
Vol.			1599				1437				
P.H.F.			0.941				0.926				
Percentage		34.2%	65.8%			40.9%	59.1%				
ADT/AADT		ADT 38,701		AADT 38,701							

City of Fullerton
 N/S: Euclid Street
 E/W: West Avenue
 24 Hour Entering Volume Count

FLNEUWEEW
 Site Code: 054-13307
 Date Start: 15-Aug-13
 Date End: 15-Aug-13

Start Time	15-Aug-13 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		4	3			1	1				
12:15		1	2			0	8				
12:30		3	8			1	7				
12:45		5	3	13	16	1	8	3	24	16	40
01:00		1	1			0	5				
01:15		0	1			0	2				
01:30		1	2			0	6				
01:45		0	5	2	9	1	8	1	21	3	30
02:00		1	0			2	8				
02:15		1	5			1	2				
02:30		0	2			0	13				
02:45		0	3	2	10	0	13	3	36	5	46
03:00		0	11			1	6				
03:15		0	3			0	3				
03:30		0	5			2	6				
03:45		0	6	0	25	1	5	4	20	4	45
04:00		0	5			0	1				
04:15		0	4			1	4				
04:30		0	9			4	5				
04:45		0	2	0	20	2	11	7	21	7	41
05:00		2	5			4	1				
05:15		3	7			3	9				
05:30		0	10			2	7				
05:45		0	4	5	26	7	3	16	20	21	46
06:00		3	7			4	2				
06:15		2	6			6	5				
06:30		4	3			5	6				
06:45		1	6	10	22	4	6	19	19	29	41
07:00		2	4			4	3				
07:15		5	7			8	13				
07:30		4	7			2	6				
07:45		8	6	19	24	8	7	22	29	41	53
08:00		4	4			6	3				
08:15		3	1			13	8				
08:30		4	6			12	14				
08:45		3	1	14	12	8	10	39	35	53	47
09:00		3	1			10	8				
09:15		3	4			6	9				
09:30		0	7			8	10				
09:45		5	3	11	15	5	12	29	39	40	54
10:00		3	4			7	2				
10:15		3	0			4	6				
10:30		3	0			5	4				
10:45		4	1	13	5	10	5	26	17	39	22
11:00		8	3			7	2				
11:15		3	0			5	0				
11:30		9	1			9	0				
11:45		4	2	24	6	8	3	29	5	53	11
Total		113	190	113	190	198	286	198	286	311	476
Combined Total		303		303		484		484		787	
AM Peak		10:45				08:15					
Vol.		24				43					
P.H.F.		0.667				0.827					
PM Peak			05:15				08:30				
Vol.			28				41				
P.H.F.			0.700				0.732				
Percentage		37.3%	62.7%			40.9%	59.1%				
ADT/AADT		ADT 787		AADT 787							

