APPENDIX E -
TRAFFIC AND CIRCULATION STUDY

Camino Ruiz Residential Project

Revised Traffic and Circulation Study

City of Camarillo, CA

December 7, 2018

W.O. 2064164000

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INTRODUCTION

Stantec, in coordination with the City of Camarillo, has prepared the following Revised Traffic and Circulation Study for the Camino Ruiz Residential Project. The study includes an assessment of the existing, near-term future and buildout traffic conditions within the study area, outlines the trip generation estimates and trip distribution for the project and recommends feasible mitigations for any identified impacts. The traffic study also reviews the project's access, internal circulation system and parking plan and provides recommendations where applicable.

PROJECT DESCRIPTION

The Camino Ruiz Residential Project site is located on the southeast corner of the Camino Ruiz and Lewis Road in the City of Camarillo. The location of the project site is illustrated in Exhibit 1. The site currently zoned Industrial and contains several vacant buildings. The project includes a General Plan Amendment to High Density Residential to allow redevelopment of the site with 386 apartments. The site is shown in Exhibit 2. Access to the project site is proposed via one driveway on Camino Ruiz and two driveways on Verdugo Way, of which one driveway provides access to the parking garage.

TRAFFIC SCENARIOS

The traffic analysis focuses on the following traffic scenarios:

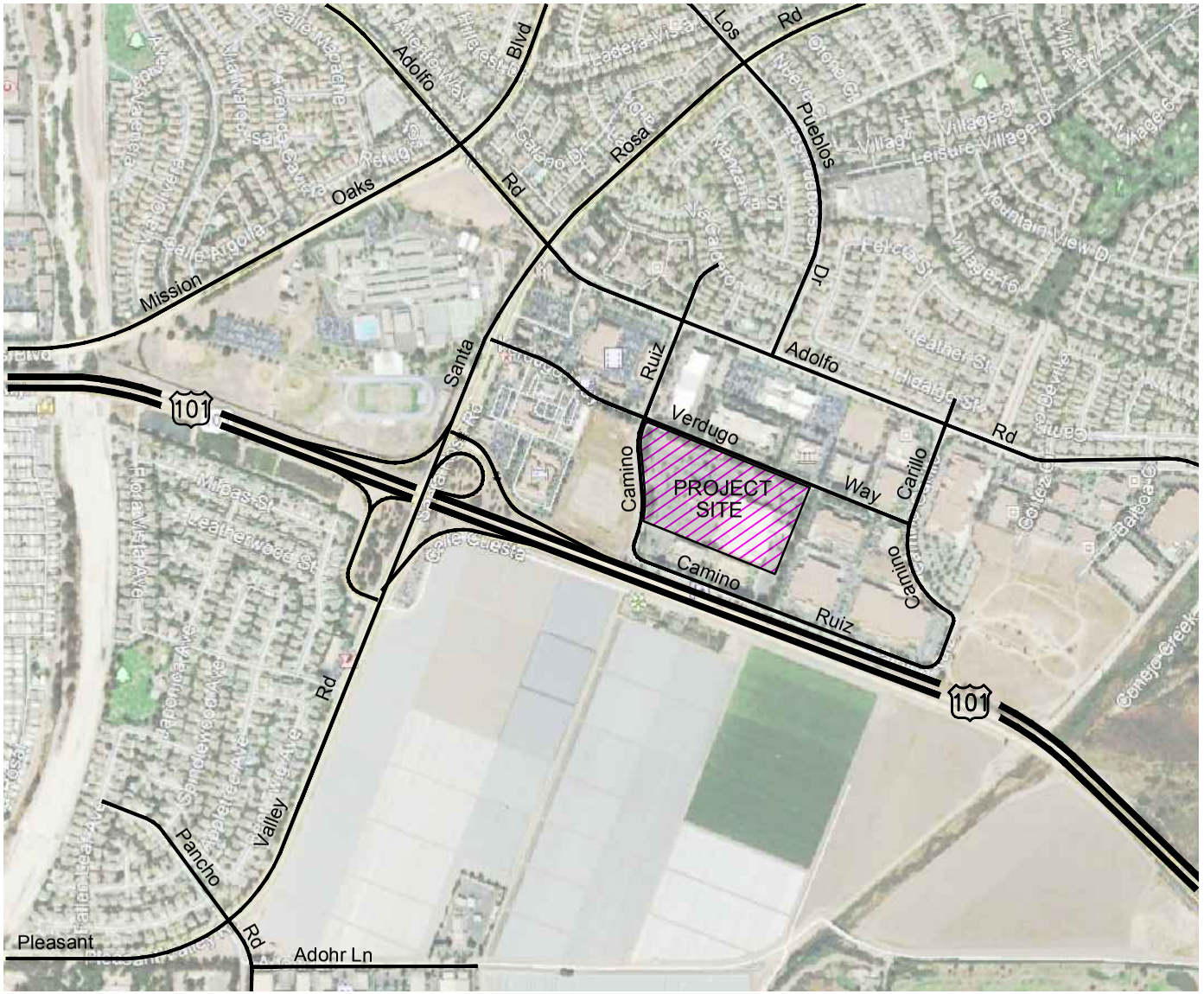
- Existing conditions
- Future (Existing + Approved Projects)
- Future (Existing + Approved Projects) + Project
- Buildout conditions
- Buildout + Project conditions

STUDY AREA

The study area is generally bound by Los Pueblos Drive to the north, Pleasant Valley Road to south, Mission Oaks Boulevard to the west and Camino Carillo to the east. Table 1 shows the list of intersections included in the analysis, which was determined through consultation with City staff.

Table 1
Study Area Intersections

Intersections	
1. Mission Oaks Blvd/Adolfo Rd	6. Pleasant Valley Rd/U.S. 101 SB Ramps
2. Santa Rosa Rd/Los Pueblos Dr	7. Pleasant Valley Rd/Pancho Rd
3. Santa Rosa Rd/Adolfo Rd	8. Camino Ruiz/Adolfo Rd
4. Santa Rosa Rd/Verdugo Way	9. Camino Ruiz/Verdugo Way
5. Santa Rosa Rd /U.S. 101 NB Ramps	



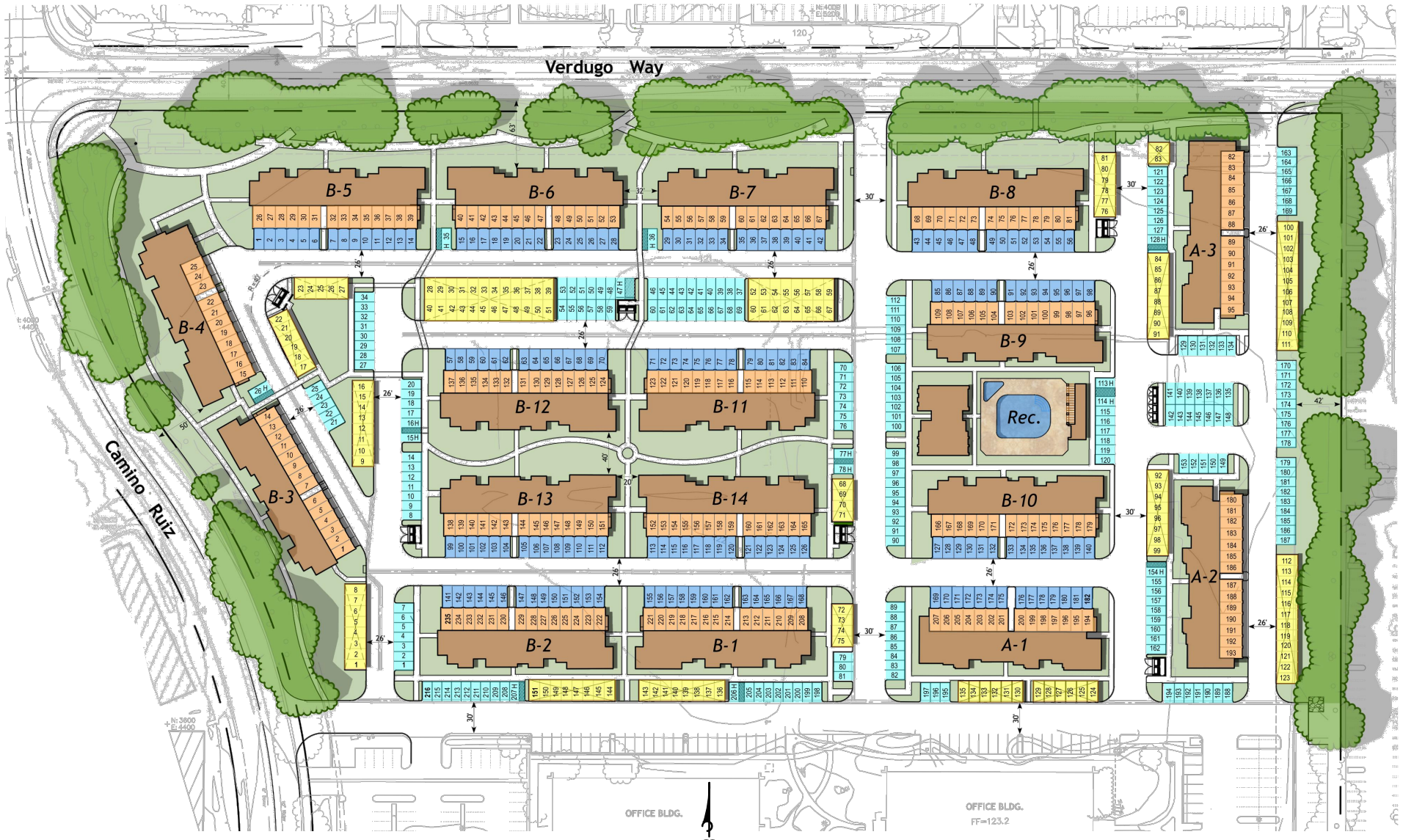
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EXHIBIT 1

EXISTING STREET NETWORK/ PROJECT SITE LOCATION

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EXHIBIT 2

CONCEPTUAL SITE PLAN

CAMINO RUIZ RESIDENTIAL PROJECT

STUDY METHODOLOGY

Level of Service Criteria

Since traffic flows in the study area are most constrained at the intersections, the traffic analysis focuses on the operating conditions at key intersections during peak travel periods which typically occur during the morning and afternoon commute hours.

To determine the operating conditions at the study intersections, a level of service (LOS) ranking scale is used. This scale compares traffic volumes to capacity and assigns a letter value to this relationship. The letter scale ranges from A to F with LOS A representing free flow conditions and LOS F representing congested conditions. Pursuant to City requirements, the Intersection Capacity Utilization Methodology (ICU) was used to analyze signalized intersections and the results are shown as a volume-to-capacity ratio. Levels of service for unsignalized intersections were calculated using methodologies outlined in the Highway Capacity Manual (HCM)[1] and the results are presented as seconds of delay. The level of service criteria are summarized in Table 2 below.

Table 2
Intersection Level of Service Criteria

LOS	**Signalized intersections** (V/C Ratio)	**Unsignalized intersections** (Sec. of delay)	Definition
A	< 0.60	≤ 10	Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles.
B	0.61 – 0.70	> 10 and ≤ 15	Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.
C	0.71- 0.80	> 15 and ≤ 25	Conditions of stable flow, delays are low to moderate, full use of peak direction signal phases is experienced.
D	0.81 – 0.90	> 25 and ≤ 35	Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.
E	0.91 – 1.00	> 35 and ≤ 50	Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, congestion exists for extended duration throughout the peak period.
F	> 1.00	> 50	Conditions of forced flow, travel speeds are low and volumes are well above capacity. This condition is often caused when vehicles released by an upstream signal are unable to proceed because of back-ups from a downstream signal

[1] *Highway Capacity Manual*, 6th Edition, Transportation Research Board, 2016.

City of Camarillo Traffic Impact Thresholds

The City's acceptable level of service for intersections is LOS C or better, with LOS D (V/C 0.83) allowed for short periods of time during peak hour periods. Project impacts are significant and must be mitigated if they exceed the following thresholds:

- 30 per lane peak hour critical movement trips for LOS D
- 20 per lane peak hour critical movement trips for LOS E
- 10 per lane peak hour critical movement trips for LOS F

Mitigation measures should provide a level of service equal or better than baseline conditions.

EXISTING CONDITIONS

Existing Roadway Network

The project site is served by a circulation system comprised of highways, arterial streets, and collector streets, as shown in Exhibit 1. A description of the study-area roadways is provided below.

U.S. Highway 101 (U.S. 101), located south of the site, is a multi-lane freeway which serves as a major arterial for the City and is the principal intercity route along this portion of the Pacific Coast. It provides regional access to the project area via the Santa Rosa Road interchange. Although it is a north-south highway in the State freeway system, U.S. 101 is aligned in the east-west direction in the vicinity of the City. U.S. Highway 101 is a 6-lane freeway within the study-area.

Santa Rosa Road is a primary arterial that extends north from U.S. 101 to Adolfo Road as a six-lane divided facility and as a four-lane divided facility north of Adolfo Road. It provides access to the commercial and residential uses within the east portion of the City and to Thousand Oaks and Simi Valley to the east. The posted speed limit along Santa Rosa Road in the vicinity of the project site is 45 mph.

Adolfo Road is classified as a secondary arterial street and contains four lanes with a landscaped median and Class II bike lanes. It extends east from Ponderosa Drive to the city's east boundary, serving the residential, office and light industrial uses located in the eastern portion of the City. The posted speed limit is 45 mph.

Verdugo Road is a two-lane major collector street west of Camino Ruiz and a minor collector street east of Camino Ruiz that extends from Santa Rosa Road and Camino Carillo. It serves the project site and the commercial and industrial areas between Adolfo Road and the U.S. 101.

Camino Ruiz is a two-lane local roadway with on-street parking that serves the project site.

Pleasant Valley Road is a Primary Arterial that extends from Port Hueneme to U.S. 101. Within the study-area, it is a four-lane roadway that extends east-west and provides access to the site from Port Hueneme and Oxnard.

Existing Transit Facilities

The study area is served by VCTC Transit Routes 50 to 55 with a bus stop Plaza at Mission Oaks (Santa Road and Verdugo Road). These transit routes provide regional access from Oxnard to Woodland Hills.

Existing Intersection Operations

AM and PM peak hour turning movement counts for the nine intersections included in the traffic analysis were collected on Tuesday March 20, 2018. The existing intersection geometry and control are illustrated in Exhibit 3 and the AM and PM peak hour volumes are illustrated in Exhibit 4. Intersection levels of service were calculated based on the level of service methodologies outlined previously. The existing intersection levels of service are summarized in Table 3 and technical calculation worksheets are included in the Technical Appendix for reference.

Table 3
Existing Intersection Peak Hour Levels of Service

Intersection	Traffic Control	AM Peak Hour V/C-LOS	PM Peak Hour V/C-LOS
1. Mission Oaks Blvd/Adolfo Rd	signal	0.60/LOS A	0.63/LOS B
2. Santa Rosa Rd/Los Pueblos Dr	signal	0.72/LOS C	0.71/LOS C
3. Santa Rosa Rd/Adolfo Rd	signal	0.65/LOS B	0.60/LOS A
4. Santa Rosa Rd/Verdugo Way	signal	0.63/LOS B	0.59/LOS A
5. Santa Rosa Rd /U.S. 101 NB Ramps	signal	0.64/LOS B	0.66/LOS B
6. Pleasant Valley Rd/U.S. 101 SB Ramps	signal	0.69/LOS B	0.71/LOS C
7. Pleasant Valley Rd/Pancho Rd	signal	0.57/LOS A	0.65/LOS B
8. Camino Ruiz/Adolfo Rd[1]	two-way stop	9.4 sec/LOS A	9.5 sec/LOS A
9. Camino Ruiz/Verdugo Way[1]	two-way stop	10.5 sec/LOS B	12.2 sec/LOS B

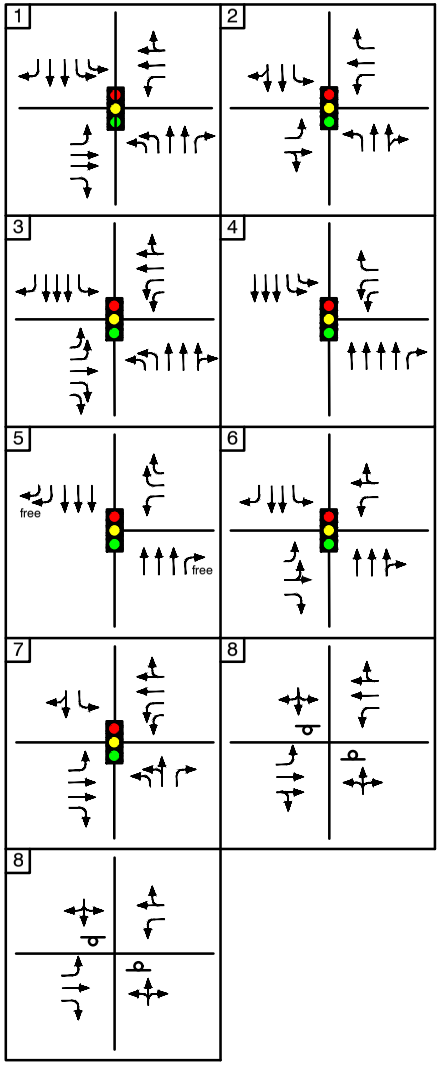
[1] Stop controlled intersection; LOS expressed in average delay per vehicle.

Table 3 indicates that the study-area intersections currently operate within the City's acceptable level of service range during both AM and PM peak hours.

FUTURE CONDITIONS

The future (existing plus approved projects) conditions serves as a baseline to assess potential impacts generated by the project. Existing plus approved projects traffic forecasts were developed assuming occupancy of approved development projects, as described below.





LEGEND

- Traffic Signal
- Stop Sign
- Lane Assignments

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EXHIBIT 3

INTERSECTION GEOMETRY

CAMINO RUIZ RESIDENTIAL PROJECT



1	187(109) 389(177) 202(91)	79(253) 286(425) 194(111)	
	131(202) 493(481) 165(47)	223(54) 145(253) 266(220)	
2	4(18) 1,442(802) 122(55)	104(110) 5(13) 54(85)	
	9(7) 11(9) 72(26)	15(51) 817(1,345) 35(74)	
3	156(122) 1,342(719) 59(52)	22(36) 103(162) 176(212)	
	79(213) 194(136) 683(452)	289(512) 772(1,250) 196(169)	
4	2,083(1,225) 161(145)	95(137) 318(550)	
		1,168(1,743) 555(284)	
5	996(698) 1,311(1,070)	393(599) 216(353)	
		1,331(1,461) 137(161)	
6	779(533) 750(899) 7(9)	6(15) 0(0) 5(4)	
	807(893) 4(1) 147(118)	1,131(1,105) 2(2)	
7	21(19) 4(4) 49(27)	16(32) 553(784) 285(69)	
	15(18) 897(714) 163(59)	95(345) 3(4) 52(316)	
8	31(13) 9(4) 1(1)	2(0) 179(265) 78(44)	
	35(103) 297(184) 51(26)	8(63) 2(2) 37(71)	
9	63(71) 18(5) 26(3)	2(39) 27(289) 1(0)	
	59(64) 278(41) 78(32)	28(68) 10(22) 1(1)	

LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

N

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EXHIBIT 4

EXISTING AM AND PM PEAK HOUR TRAFFIC VOLUMES

CAMINO RUIZ RESIDENTIAL PROJECT

Approved Projects Traffic Generation and Distribution

The list of approved developments and developments under construction included in the future conditions was derived from the City of Camarillo monthly development report[2] and input provided by City staff. The following developments are expected to add traffic in the study-area:

- St. John's Seminary Residential Development – 281 SFD
- Teso Robles Townhomes – 129 townhomes
- Mission Oaks Business Park – 344,515 SF light industrial and office buildings

Trip generation estimates for the approved projects were developed using City's trip generation rates and trips were distributed based on the location of each approved project and existing traffic patterns. A trip generation table for the approved projects is included in the Technical Appendix for reference.

Future Intersection Operations

Levels of service were calculated for the study-area intersections assuming the future baseline AM and PM peak hour volumes illustrated in Exhibit 5. No roadway or intersection improvements are proposed under future conditions. Table 4 summarizes the future intersection level of service calculations. As shown, the study-area intersections would continue to operate in the LOS A-C range.

Table 4
Future Intersection Peak Hour Levels of Service

Intersection	Traffic Control	AM Peak Hour V/C-LOS	PM Peak Hour V/C-LOS
1. Mission Oaks Blvd/Adolfo Rd	signal	0.62/LOS B	0.64/LOS B
2. Santa Rosa Rd/Los Pueblos Dr	signal	0.73/LOS C	0.72/LOS C
3. Santa Rosa Rd/Adolfo Rd	signal	0.66/LOS B	0.61/LOS B
4. Santa Rosa Rd/Verdugo Way	signal	0.66/LOS B	0.65/LOS B
5. Santa Rosa Rd /U.S. 101 NB Ramps	signal	0.51/LOS A	0.63/LOS B
6. Pleasant Valley Rd/U.S. 101 SB Ramps	signal	0.72/LOS C	0.73/LOS C
7. Pleasant Valley Rd/Pancho Rd	signal	0.58/LOS A	0.66/LOS B
8. Camino Ruiz/Adolfo Rd[1]	two-way stop	10.3 sec/LOS B	12.1 sec/LOS B
9. Camino Ruiz/Verdugo Way[1]	two-way stop	16.0 sec/LOS C	18.7 sec/LOS C

[1] Stop controlled intersection; LOS expressed in average delay per vehicle.

[2] *Monthly Report, February 2018*, Department of Community Development, City of Camarillo.



1	187(109) / 389(177) / 202(91)	79(253) / 308(465) / 194(111)	
	131(202) / 535(501) / 165(47)	223(54) / 145(253) / 266(220)	
2	4(18) / 1,469(814) / 128(57)	106(116) / 6(18) / 54(85)	
	9(7) / 17(11) / 78(27)	16(56) / 825(1,366) / 35(74)	
3	156(122) / 1,360(726) / 73(56)	29(52) / 119(185) / 176(212)	
	79(213) / 215(150) / 704(458)	295(527) / 774(1,260) / 196(169)	
4	2,104(1,233) / 179(150)	100(152) / 403(725)	
		1,171(1,755) / 737(372)	
5	1,032(773) / 1,381(1,179)	474(648) / 216(353)	
		1,435(1,512) / 137(161)	
6	835(616) / 764(925) / 7(9)	6(15) / 0(0) / 5(4)	
	885(931) / 4(1) / 147(118)	1,157(1,118) / 2(2)	
7	21(19) / 4(4) / 49(27)	16(32) / 562(804) / 291(78)	
	15(18) / 921(721) / 163(59)	95(345) / 3(4) / 60(318)	
8	31(13) / 9(4) / 1(1)	2(0) / 186(294) / 78(44)	
	35(103) / 327(192) / 54(38)	23(70) / 2(2) / 37(71)	
9	63(71) / 21(17) / 26(3)	2(39) / 65(455) / 2(2)	
	59(64) / 466(92) / 90(74)	90(92) / 25(29) / 3(2)	

LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

N

N.T.S.

EXHIBIT 5

FUTURE BASELINE AM AND PM PEAK HOUR TRAFFIC VOLUMES

CAMINO RUIZ RESIDENTIAL PROJECT

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PROJECT-SPECIFIC ANALYSIS

Project Trip Generation

Trip generation estimates were determined for the project by applying the City's trip generation rates for Multi-Family Dwelling Unit (>20 DU/acre). The City developed rates based on counts collected at sites throughout the City of Camarillo, and the rates therefore reflect the specific travel characteristics within the Camarillo area. The trip generation rates and project trip generation estimates are shown in Tables 5 and 6.

Table 5
Project Trip Generation Rates

Land Use	Unit	ADT Rate	AM Peak Hour Rate			PM Peak Hour Rate		
			In	Out	Total	In	Out	Total
Multi-Family Dwelling Unit (>20 DU/acre)	Unit	6.0	0.10	0.38	0.48	0.29	0.15	0.44

ADT = average daily traffic.

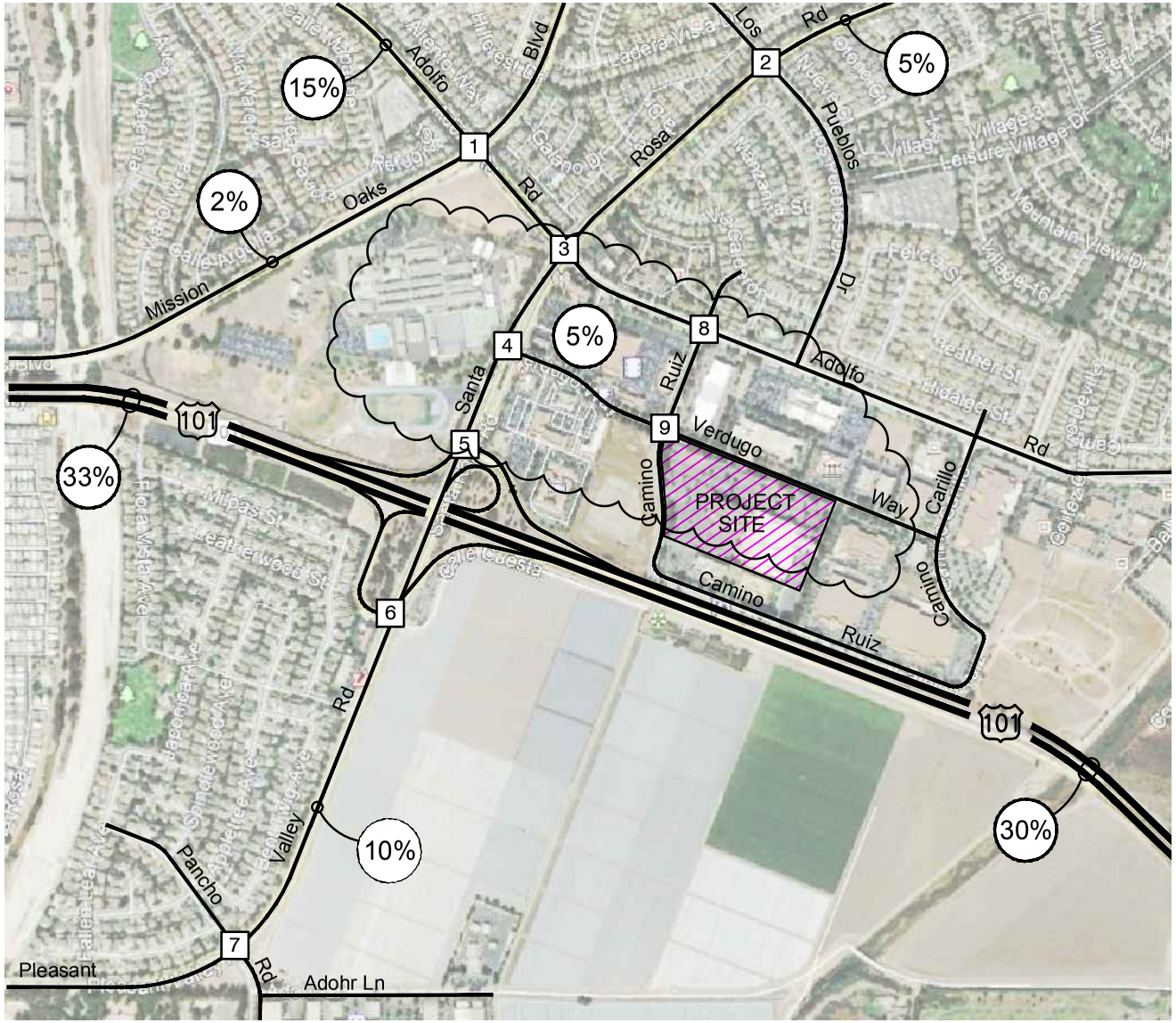
Table 6
Project Trip Generation Estimates

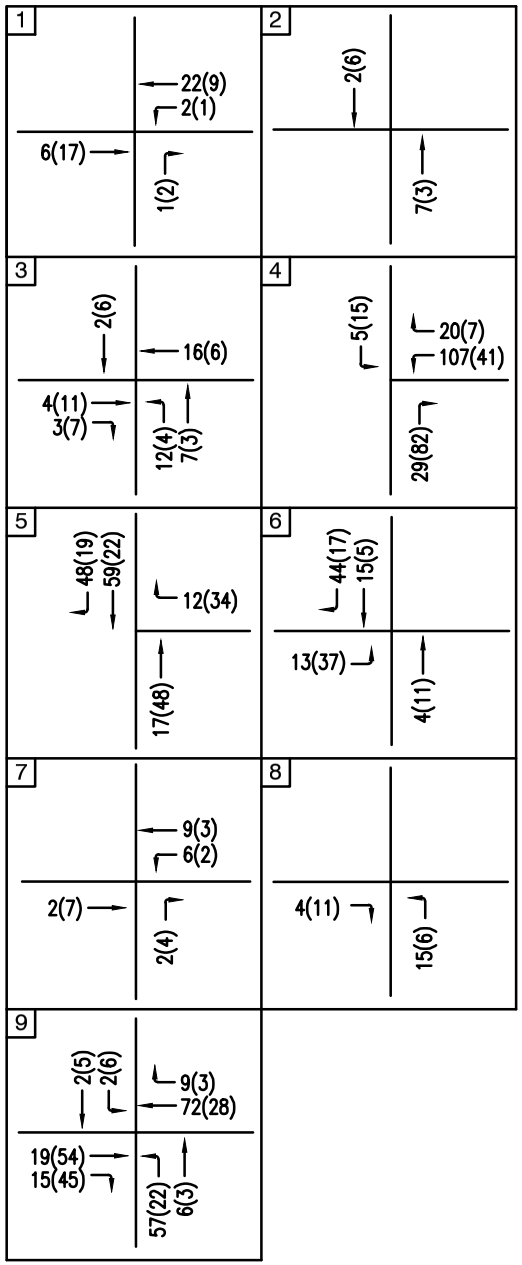
Land Use	Size	ADT	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Multi-Family Dwelling Unit (>20 DU/acre)	386 Units	2,316	39	146	185	112	58	170

The project is expected to generate a total of 2,316 average daily trips (ADT) to the site, with 185 trips occurring during the AM peak hour and 170 trips occurring during the PM peak hour.

Project Trip Distribution

Project Trip distribution percentages were developed based on existing traffic patterns, location of the residential, commercial and industrial areas within the Camarillo area and knowledge of the regional demographics. The project trip distribution percentages are shown in Table 7. The project-added AM and PM peak hour trips are illustrated in Exhibit 6 and the future baseline + project AM and PM peak hour traffic volumes are illustrated in Exhibit 7.





LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

25% - Trip Distribution Percentage

N

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EXHIBIT 6

PROJECT-ADDED AM AND PM PEAK HOUR TRAFFIC VOLUMES

CAMINO RUIZ RESIDENTIAL PROJECT



1	187(109) 389(177) 202(91)	79(253) 330(474) 196(112)
	131(202) 541(518) 165(47)	223(54) 145(253) 267(222)
2	4(18) 1,471(820) 128(57)	106(116) 6(18) 54(85)
	9(7) 17(11) 78(27)	16(56) 832(1,369) 35(74)
3	156(122) 1,362(732) 73(56)	29(52) 135(191) 176(212)
	79(212) 219(162) 707(465)	307(531) 782(1,263) 195(169)
4	2,104(1,233) 184(165)	120(159) 512(766)
		1,171(1,755) 766(454)
5	1,080(792) 1,440(1,201)	486(682) 216(353)
		1,452(1,560) 137(161)
6	879(633) 779(930) 7(9)	6(15) 0(0) 5(4)
	898(968) 4(1) 147(118)	1,161(1,129) 2(2)
7	21(19) 4(4) 49(27)	16(32) 571(807) 297(80)
	15(18) 923(728) 163(59)	95(345) 3(4) 62(322)
8	31(13) 9(4) 1(1)	2(0) 186(294) 78(44)
	35(103) 327(192) 58(49)	38(76) 2(2) 37(71)
9	63(71) 23(22) 28(9)	11(42) 137(483) 2(2)
	59(64) 485(146) 105(119)	147(114) 31(32) 3(2)

LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

N

N.T.S.

EXHIBIT 7

FUTURE BASELINE + PROJECT AM AND PM PEAK HOUR TRAFFIC VOLUMES

CAMINO RUIZ RESIDENTIAL PROJECT

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Table 7
Project Trip Distribution

Street	Direction	Project Trip Distribution
U.S. Highway 101	East West	30% 33%
Adolfo Rd	Northwest	15%
Pleasant Valley Rd	Southwest	10%
Santa Rosa Rd	North	5%
Mission Oaks Blvd	West	2%
Local	-	5%
Total Traffic		**100%**

Future + Project Intersection Operations

Levels of service for the study-area intersections were recalculated based on the future baseline plus project traffic volumes. Tables 9 and 10 show the level of service calculation results for the AM and PM peak hours, respectively.

Table 8
AM Peak Hour
Future + Project Intersection Levels of Service

Intersection	AM Peak Hour		Significant Impact?
	Future LOS	Future + Project LOS	
1. Mission Oaks Blvd/Adolfo Rd	0.62/LOS B	0.62/LOS B	No
2. Santa Rosa Rd/Los Pueblos Dr	0.73/LOS C	0.73/LOS C	No
3. Santa Rosa Rd/Adolfo Rd	0.66/LOS B	0.67/LOS B	No
4. Santa Rosa Rd/Verdugo Way	0.66/LOS B	0.70/LOS B	No
5. Santa Rosa Rd /U.S. 101 NB Ramps	0.55/LOS A	0.55/LOS A	No
6. Pleasant Valley Rd/U.S. 101 SB Ramps	0.72/LOS C	0.72/LOS C	No
7. Pleasant Valley Rd/Pancho Rd	0.58/LOS A	0.58/LOS A	No
8. Camino Ruiz/Adolfo Rd[1]	10.3 sec/LOS B	11.1 sec/LOS B	No
9. Camino Ruiz/Verdugo Way[1]	16.0 sec/LOS C	**29.1 sec/LOS D**	**Yes**

[1] Stop controlled intersection; LOS expressed in average delay per vehicle.
Bolded values exceed City LOS C standard.

Table 9
PM Peak Hour
Future + Project Intersection Levels of Service

Intersection	PM Peak Hour		Significant Impact?
	Future LOS	Future + Project LOS	
1. Mission Oaks Blvd/Adolfo Rd	0.64/LOS B	0.64/LOS B	No
2. Santa Rosa Rd/Los Pueblos Dr	0.72/LOS C	0.72/LOS C	No
3. Santa Rosa Rd/Adolfo Rd	0.61/LOS B	0.62/LOS B	No
4. Santa Rosa Rd/Verdugo Way	0.65/LOS B	0.67/LOS B	No
5. Santa Rosa Rd /U.S. 101 NB Ramps	0.64/LOS B	0.65/LOS B	No
6. Pleasant Valley Rd/U.S. 101 SB Ramps	0.73/LOS C	0.74/LOS C	No
7. Pleasant Valley Rd/Pancho Rd	0.66/LOS B	0.66/LOS B	No
8. Camino Ruiz/Adolfo Rd[1]	12.1 sec/LOS B	12.5 sec/LOS B	No
9. Camino Ruiz/Verdugo Way[1]	18.7 sec/LOS C	**27.5 sec/LOS D**	**Yes**

[1] Stop controlled intersection; LOS expressed in average delay per vehicle.
Bolded values exceed City LOS C standard.

Tables 8 and 9 indicate that the project would generate an impact at the Camino Ruiz/Verdugo Way intersection, which would operate in the LOS D range during the both AM and PM peak hours. The project would add more than 30 trips per lane to the critical movements, therefore generating an impact. Intersection improvements are discussed in the Mitigations section.

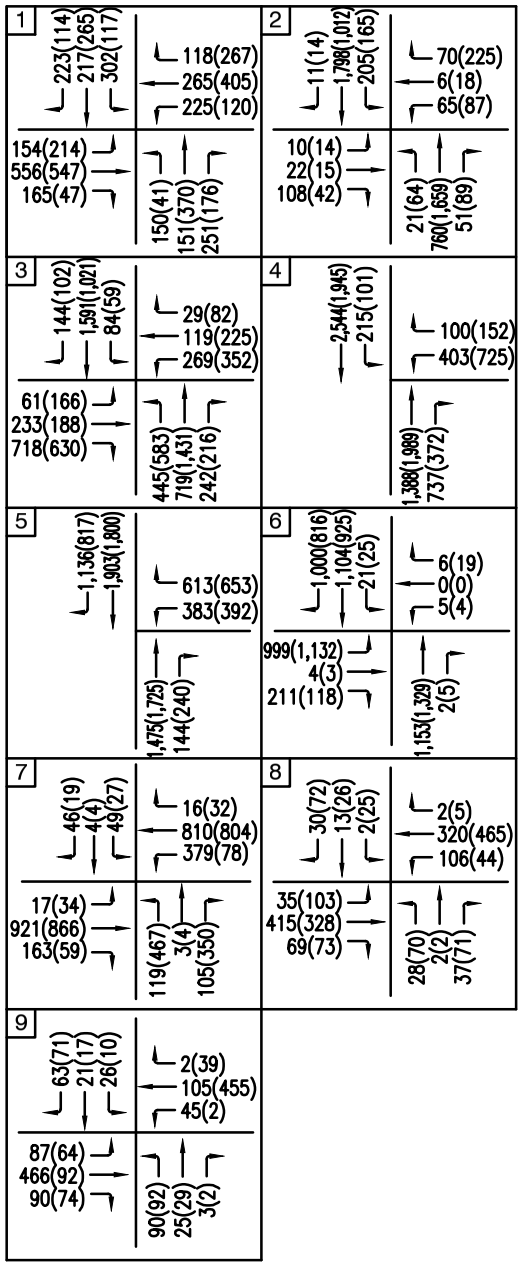
BUILDOUT CONDITIONS

Buildout Traffic Forecasts

The project's potential cumulative impacts are assessed based on the long range General Plan buildout of the City of Camarillo, which is anticipated to occur in the year 2030. The buildout traffic volumes for the study-area intersections were derived from the City's Traffic Model (CTAM) and were provided by City staff. The Traffic Model's *Year 2030* traffic forecasts include both traffic growth associated with buildout of the City's *Land Use Element* and anticipated regional growth, and incorporate the roadway network improvements included in the City's *Circulation Element*[3]. Forecast adjustments were applied to account for the GP land use modification from Community Commercial to Multi-Family (<20 DU/Acre) for the Teso Robles Townhomes located directly west of the project site. A trip generation worksheet is included in the Technical Appendix. The buildout AM and PM peak hour traffic volumes are illustrated in Exhibit 8.

[3] *Circulation Element*, City of Camarillo General Plan, City of Camarillo, 2014.





LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

N

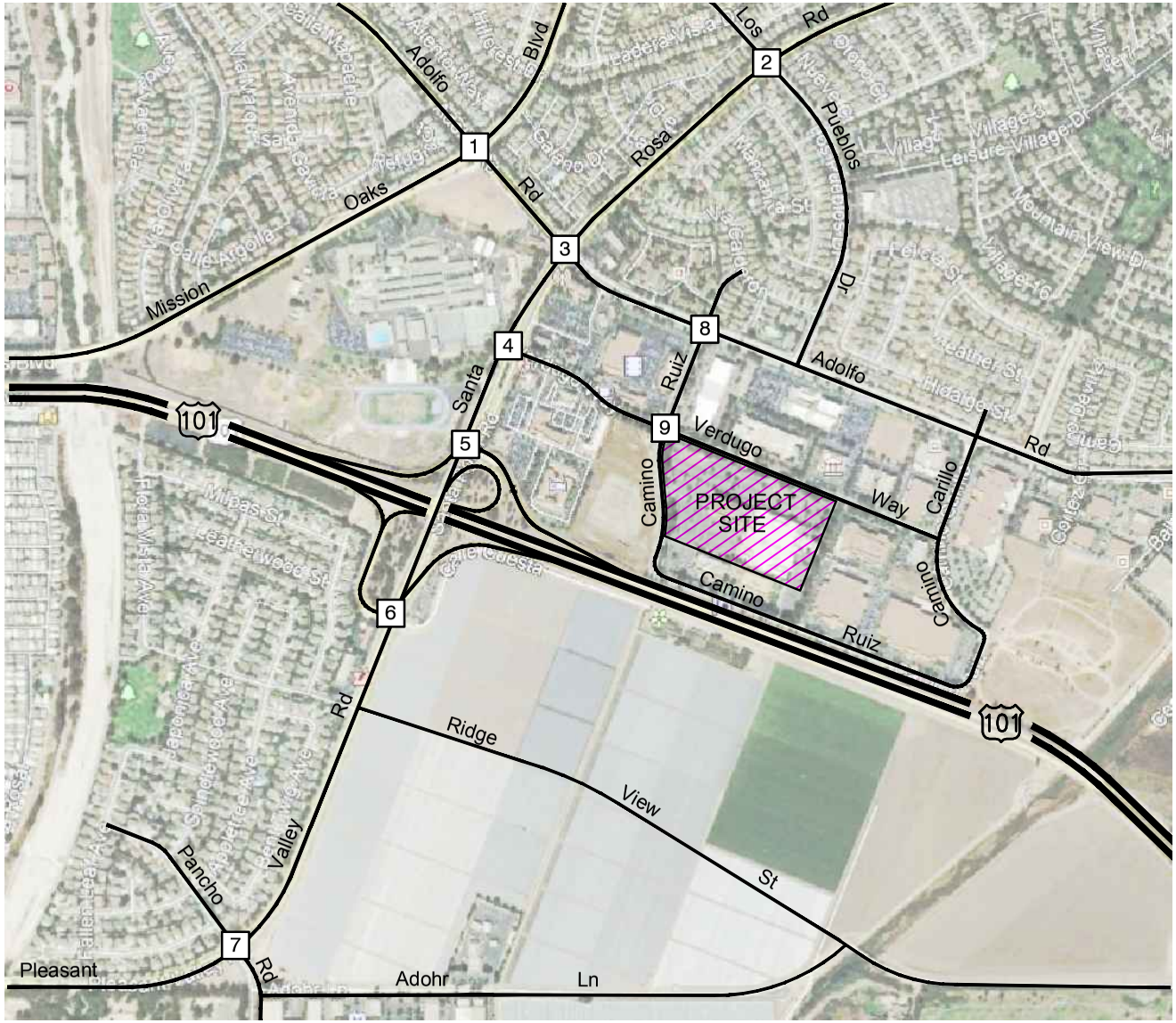
N.T.S.

Stantec
111 East Victoria Street, Santa Barbara, CA 93101
Phone: (805) 963-9532 Fax: (805) 966-9801

EXHIBIT 8

BUILDOUT AM AND PM PEAK HOUR TRAFFIC VOLUMES

CAMINO RUIZ RESIDENTIAL PROJECT



LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

N.T.S.

1	2
223(114) → 217(265) → 302(117) ← 118(267) ← 283(406) ← 227(120) 154(214) 536(550) 165(47) → ← 150(41) 151(370) 248(176)	11(14) → 1,791(1,012) → 205(165) ← 70(225) ← 6(18) ← 65(87) 10(14) 22(15) 108(42) → ← 21(64) 766(1,660) 51(89)
3	**4**
144(102) → 1,584(1,022) → 84(59) ← 29(82) ← 130(226) ← 269(352) 61(166) 222(189) 707(630) → ← 455(584) 726(1,432) 241(216)	2,544(1,945) → 196(103) ← 116(153) ← 494(728) 1,388(1,989) 637(383) → ←
5	**6**
1,177(819) → 1,953(1,812) ← 537(658) ← 383(392) ← 1,416(1,731) 144(240)	1,038(817) → 1,116(925) → 21(25) ← 6(19) ← 0(0) ← 5(4) 953(1,137) 4(3) 211(118) → ← 1,140(1,330) 2(5)
7	**8**
46(19) → 4(4) → 49(27) ← 16(32) ← 817(805) ← 384(77) 17(34) 914(867) 163(59) → ← 119(467) 3(4) 99(350)	30(72) → 13(26) → 2(25) ← 2(5) ← 320(465) ← 106(44) 35(103) 415(328) 58(74) → ← 38(71) 2(2) 37(71)
9	
63(71) → 16(18) → 20(10) ← 8(40) ← 166(459) ← 45(2) 86(60) 399(102) 90(84) → ← 139(95) 30(29) 3(2)	

EXHIBIT 9

BUILDOUT + PROJECT AM AND PM PEAK HOUR TRAFFIC VOLUMES

CAMINO RUIZ RESIDENTIAL PROJECT

Stantec
111 East Victoria Street, Santa Barbara, CA 93101
Phone: (805) 963-9532 Fax: (805) 966-9801

Buildout Street Network

The City's Circulation Element contains the following long-range roadway improvements:

Adolfo Road: The City's Long-Range Circulation Improvement Plan includes the extension of Adolfo Road eastward to Camarillo Springs Road. The extension would provide for additional access to U.S. 101 from the eastern portion of the City.

Ridge View Street: Ridge View Street, located south of U.S. 101, would be extended to Pleasant Valley Road from its current connection to Adohr Lane.

Recently completed improvements from the City Capital Improvement Program includes the widening of Santa Rosa Road from Adobe Way to Upland Road to four lanes, and capacity improvements at the Santa Rosa Road/Adolfo Road intersection.

Buildout Intersection Operations

Project-added volumes were adjusted to account for the conversion of the project site in the Traffic Model from 170 KSF of R&D to 386 MFDU (TCAM TAZ 179). Table 10 shows the trip generation assuming the GP Amendment for the project site. A trip generation worksheet is included in the Technical Appendix.

Table 10
Project Trip Generation Estimates – GP Buildout Conditions

Land Use	Size	ADT	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Research & Development	170 KSF	-1,360	-177	-20	-197	-96	-52	-148
Multi-Family Dwelling Unit (>20 DU/acre)	386 Units	2,316	39	146	185	112	58	170
Net Difference		**956**	**-138**	**126**	**-12**	**16**	**6**	**22**

Project-added peak hour traffic volumes were layered onto the buildout peak hour traffic volumes, as shown in Exhibit 9, and the levels of service for the intersections were recalculated assuming buildout and buildout + project conditions. The level of service calculations are summarized in Tables 10 and 11.

Table 11
AM Peak Hour
Buildout + Project Intersection Levels of Service

Intersection	AM Peak Hour		Significant Impact?
	Buildout LOS	Buildout + Project LOS	
1. Mission Oaks Blvd/Adolfo Rd	0.67/LOS B	0.66/LOS B	No
2. Santa Rosa Rd/Los Pueblos Dr	**0.85/LOS D**	**0.84/LOS D**	No
3. Santa Rosa Rd/Adolfo Rd	0.80/LOS C	0.80/LOS C	No
4. Santa Rosa Rd/Verdugo Way	0.76/LOS C	0.78/LOS C	No
5. Santa Rosa Rd /U.S. 101 NB Ramps	0.74/LOS C	0.75/LOS C	No
6. Pleasant Valley Rd/U.S. 101 SB Ramps	**0.81/LOS D**	0.80/LOS C	No
7. Pleasant Valley Rd/Pancho Rd	0.62/LOS B	0.62/LOS B	No
8. Camino Ruiz/Adolfo Rd[1]	12.5 sec/LOS B	13.4 sec/LOS B	No
9. Camino Ruiz/Verdugo Way[1]	20.3 sec/LOS C	**33.3 sec/LOS D**	**Yes**

[1] Stop controlled intersection; LOS expressed in average delay per vehicle.
Bolded values exceed City LOS C standard.

Table 12
PM Peak Hour
Buildout + Project Intersection Levels of Service

Intersection	AM Peak Hour		Significant Impact?
	Buildout LOS	Buildout + Project LOS	
1. Mission Oaks Blvd/Adolfo Rd	0.61/LOS B	0.61/LOS B	No
2. Santa Rosa Rd/Los Pueblos Dr	**0.85/LOS D**	**0.85/LOS D**	No
3. Santa Rosa Rd/Adolfo Rd	0.72/LOS C	0.72/LOS C	No
4. Santa Rosa Rd/Verdugo Way	0.73/LOS C	0.73/LOS C	No
5. Santa Rosa Rd /U.S. 101 NB Ramps	0.72/LOS C	0.72/LOS C	No
6. Pleasant Valley Rd/U.S. 101 SB Ramps	**0.83/LOS D**	**0.83/LOS D**	No
7. Pleasant Valley Rd/Pancho Rd	0.69/LOS B	0.69/LOS B	No
8. Camino Ruiz/Adolfo Rd[1]	21.4 sec/LOS C	21.5 sec/LOS C	No
9. Camino Ruiz/Verdugo Way[1]	18.9 sec/LOS C	19.6 sec/LOS C	No

[1] Stop controlled intersection; LOS expressed in average delay per vehicle.
Bolded values exceed City LOS C standard.

Tables 11 and 12 indicate that three intersections are forecast to operate below the City's LOS C standard during the AM or PM peak hour under buildout + project conditions. These intersections and the project's additions are discussed below.

- Santa Rosa Road/Los Pueblos Drive: The intersection would operate in the LOS D range during the AM and PM peak hour. The project would reduce critical trips during the AM peak hour and add 1 trip to the critical movements during the PM peak hour, which is acceptable based on the City's impact threshold of 30 per lane peak hour critical movement trips for LOS D.

- Pleasant Valley Road/U.S. 101 Southbound Ramps: The intersection would operate in the LOS D range during the AM and PM peak hour. The project would improve the level of service to LOS C during the AM peak hour and the project would add 10 trips to the critical movements of the intersection, which is acceptable based on the City's impact threshold of 30 per lane peak hour critical movement trips for LOS D. It is noted that *2017 Federal Transportation Improvement Program* includes a project to widen the on-ramp and addition of turning lanes at the intersection to improve operations.

- Camino Ruiz/Verdugo Way: The intersection would operate in the LOS E range during the AM peak hour. The project would add 48 trips per lane to the critical movements of the intersection, which would exceed the City's impact threshold of 20 per lane peak hour critical movement trips for LOS E. Improvements are discussed in Mitigations section.

SITE ACCESS AND CIRCULATION

As shown in Exhibit 2, access to the project site is proposed via two driveways on Verdugo Way, of which one driveway provides access to the parking garage, and one driveway on Camino Ruiz. The driveways will be constructed according to City standards. Review of the driveway locations and turning volumes indicates that project driveway connections to Verdugo Way and Camino Ruiz would operate acceptably. Frontage improvements include meandering sidewalks that connect the on-site walkways to the existing sidewalks along Verdugo Way and Camino Ruiz.

The residential circulation system is comprised of two-way drive aisles that provide access to the parking areas and the parking garage. Given the low traffic volumes, the proposed circulation system is expected to operate acceptably. The final design should incorporate a truck turning analysis to confirm adequate space is provided for garbage trucks, moving trucks and emergency vehicles.

MITIGATIONS

The future and buildout conditions analyses found that the project would generate a significant impact at the Camino Ruiz/Verdugo Way intersection. The intersection is controlled by stop signs on Camino Ruiz and would operate at LOS D during both AM and PM peak hours. Review of traffic signal warrant criteria contained in the *CAMUTCD*[4] indicates that the AM or PM peak hour

[4] *California Manual on Uniform Traffic Control Devices,* 2014 Edition Revision 2, Caltrans, April 2017.

turning volumes would not satisfy *Warrant 3- Peak Hour* or any other applicable traffic signal warrant. A traffic signal is therefore not recommended. Installation of an all-way stop would result in increased delays on through traffic on Verdugo Way and unacceptable levels of service.

It is therefore recommended that the intersection be monitored and traffic counts and delays collected after the project has been occupied and traffic patterns are established to determine if improvements, including installation of a traffic signal, are warranted. Counts can thereafter be collected at intervals determined by City staff to continue the monitoring program.

CONGESTION MANAGEMENT PROGRAM (CMP) ANALYSIS

For the purposes of a CMP traffic impact analysis, LOS E is considered to be acceptable, and a significant impact occurs if the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C > 0.02), causing or worsening LOS F (V/C > 1.00).

Roadways. U.S. 101, Santa Rosa Road and Pleasant Valley Road are included in the CMP network. According to the 2009 CMP[5], all facilities operate at LOS D or better during the AM and PM peak hour periods, except the following segments of U.S. 101:

Southbound U.S. 101 south of Lewis Road operates in the LOS F range during the AM peak hour. The project would add 47 AM PHT to southbound U.S. 101. These traffic additions would not result in a CMP impact based on the criteria outlined above.

Northbound U.S. 101 operates in the LOS F range during the PM peak hour. The project would add 20 PM PHT to northbound U.S. 101. These additions would not result in a CMP impact based on the criteria outlined above.

Caltrans and the Ventura County Transportation Commission (VCTC) have previously documented that the segment of US Highway 101 in the Camarillo area should be upgraded by adding one lane in each direction to provide a continuous eight-lane facility. The need for widening this facility is generated by regional traffic growth to the year 2030, not isolated to traffic generated by the proposed project. Improvements for mainline freeway segments are programmed through VCTC and are funded through various state and federal funding sources, local sales tax and gas taxes. No formal funding for widening the freeway has been committed at this time. The City of Camarillo has contributed a fair-share contribution toward mainline freeway improvements by reconstructing freeway interchange bridges with longer spans to accommodate future mainline widening projects. Furthermore, the project developer will pay Traffic Mitigation Fees to the City that will partially finance off-site projects that accommodate future widening on the mainline freeway, e.g., interchange reconstruction, ramp improvements, and intersection improvements adjacent to freeway ramps.

[5] *2009 Ventura County Congestion Management Program*, VCTC, Adopted July 10, 2009.

Intersections. Within the study area, the Santa Rosa Rd/U.S. 101 NB Ramps and the Pleasant Valley Rd/U.S. 101 SB Ramps are included in the CMP network. Both intersections currently operate at LOS C or better, and are expected to operate at LOS D or better under future and buildout conditions. The project would not result in any impacts at CMP intersections.

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TECHNICAL APPENDIX

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Appendix 1 - AM and PM Peak Hour Turning Volume Counts

Appendix 2 - Approved Projects Trip Generation & Project Trip Generation (Buildout Conditions)

Appendix 3 - City of Camarillo Year 2030 Traffic Volume Data

Appendix 4 - Existing Intersection Levels of Service

Appendix 5 - Future and Future + Project Intersection Levels of Service

- Future (Baseline) AM and PM Peak Hour
- Future + Project AM and PM Peak Hour
- Future + Project Traffic Signal Warrant 3 – Peak Hour

Appendix 6 - Buildout and Buildout + Project Intersection Levels Of Service

- Buildout AM and PM Peak Hour
- Buildout + Project AM and PM Peak Hour
- Buildout + Project Traffic Signal Warrant 3 – Peak Hour

Appendix 1 - AM and PM Peak Hour Turning Volume Counts

Prepared by National Data & Surveying Services

Pleasant Valley Rd & Pancho Rd

Peak Hour Turning Movement Count

ID: 18-05113-001
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Pleasant Valley Rd — SOUTHBOUND

AM	16	553	285	0	1013	AM
NOON	0	0	0	0	0	NOON
PM	32	784	69	0	1078	PM

EASTBOUND (Pancho Rd)

AM	NOON	PM		
33	0	54	⇦	
0	0	0	↶	0
21	0	19	↱	1
4	0	4	→	0.5
49	0	27	↴	0.5
AM	NOON	PM		

CONTROL

Signalized

TEV	2153 AM	0 NOON	2391 PM
PHF	0.85		0.96

WESTBOUND (Pancho Rd)

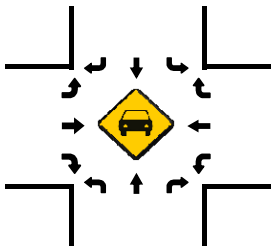
PM	NOON	AM		
345	0	95	↰	1
4	0	3	←	0.5
316	0	52	↰	1.5
0	0	0	↶	0
132	0	452	⇨	
PM	NOON	AM		

Pleasant Valley Rd — NORTHBOUND

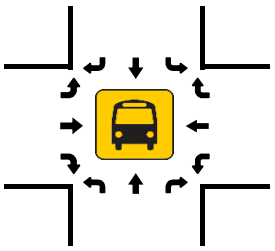
PM	1127	0	18	714	59	PM
NOON	0	0	0	0	0	NOON
AM	655	1	14	897	163	AM

0 2 2 0 — 0 1 2 1

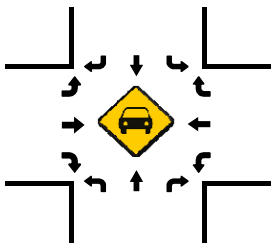
Total Vehicles (AM)



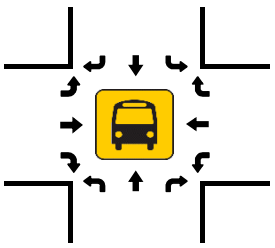
Total Vehicles (AM)



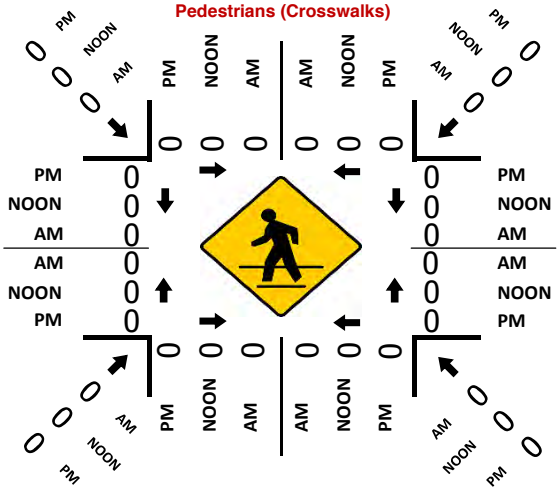
Total Vehicles (NOON)



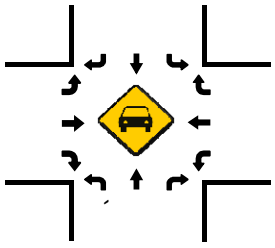
Total Vehicles (NOON)



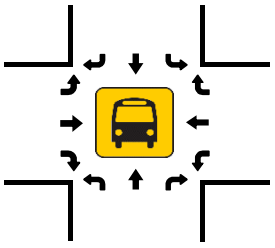
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



Prepared by National Data & Surveying Services

Santa Rosa Rd & U.S. 101 NB Ramps

Peak Hour Turning Movement Count

ID: 18-05113-002
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS

AM: 07:15 AM - 08:15 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

SOUTHBOUND — Santa Rosa Rd

AM	996	1311	0	0	1724	AM
NOON	0	0	0	0	0	NOON
PM	698	1070	0	0	2060	PM
	2	3	0	0		

EASTBOUND — U.S. 101 NB Ramps

AM	NOON	PM	
996	0	698	⇦
0	0	0	0 ↶
0	0	0	0 ↱
0	0	0	0 →
0	0	0	0 ↷
AM	NOON	PM	

WESTBOUND — U.S. 101 NB Ramps

PM	NOON	AM	
599	0	393	2 ↰
0	0	0	0 ←
353	0	216	1 ↰
0	0	0	0 ↶
161	0	137	⇨
PM	NOON	AM	

0 0 3 1

NORTHBOUND — Santa Rosa Rd

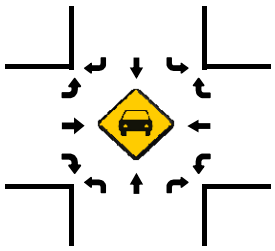
PM	1423	0	0	1461	161	PM
NOON	0	0	0	0	0	NOON
AM	1527	0	0	1331	137	AM

CONTROL

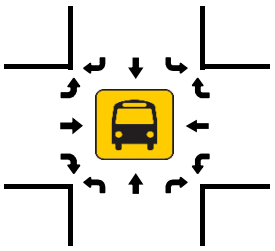
Signalized

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	AM	NOON	PM
PHF	0.83		0.96

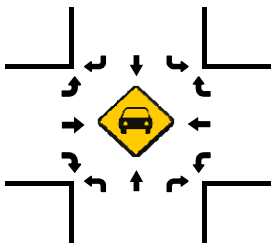
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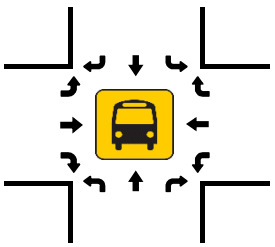
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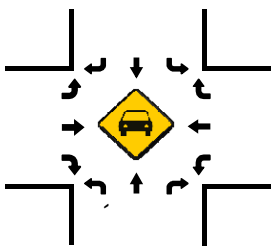
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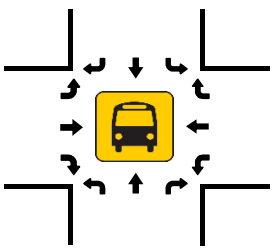
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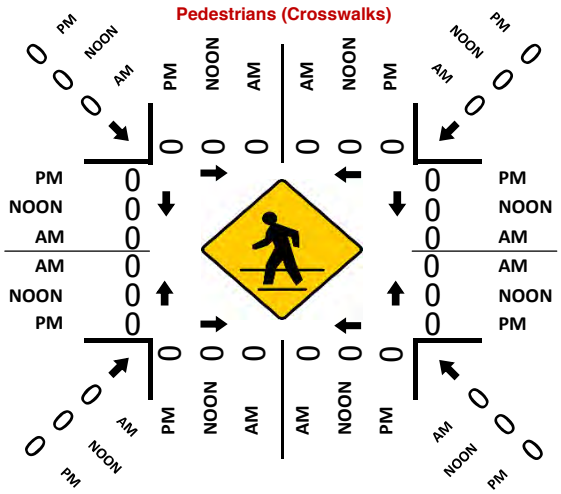
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Santa Rosa Rd & U.S. 101 SB Ramps

Peak Hour Turning Movement Count

ID: 18-05113-003
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Santa Rosa Rd — SOUTHBOUND

AM	779	750	2	5	1949	AM
NOON	0	0	0	0	0	NOON
PM	533	899	6	3	2016	PM
	1	2	1	0		

U.S. 101 SB Ramps — EASTBOUND

AM	NOON	PM	
779	0	533	
0	0	0	0
807	0	893	1.5
4	0	1	0.5
147	0	118	1

CONTROL

Signalized

TEV	3638	0	3579
	AM	NOON	PM
PHF	0.94		0.90

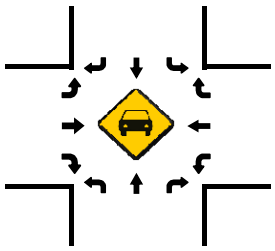
WESTBOUND — U.S. 101 SB Ramps

PM	NOON	AM	
15	0	6	0
0	0	0	1
4	0	5	1
0	0	0	0
9	0	8	

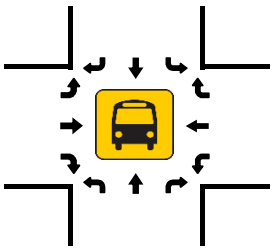
Santa Rosa Rd — NORTHBOUND

	0	0	3	0		
PM	1021	0	0	1105	2	PM
NOON	0	0	0	0	0	NOON
AM	902	0	0	1131	2	AM

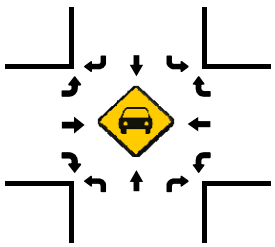
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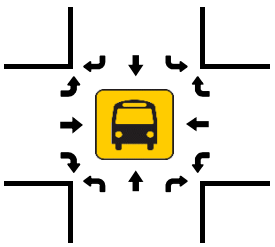
Total Vehicles (AM)



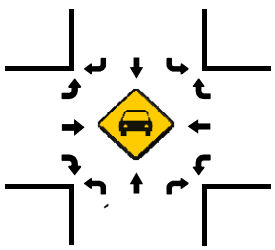
Total Vehicles (NOON)



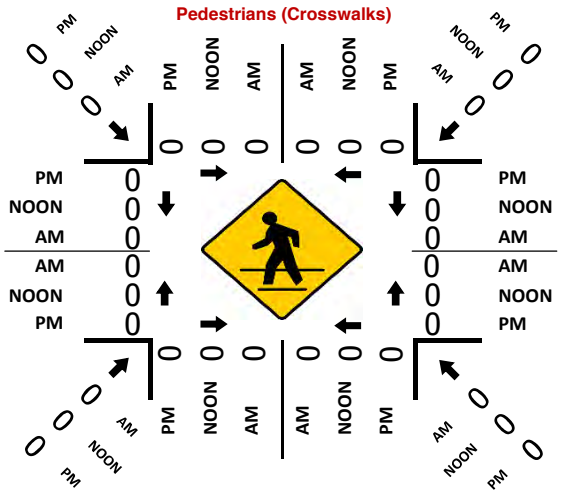
Total Vehicles (NOON)



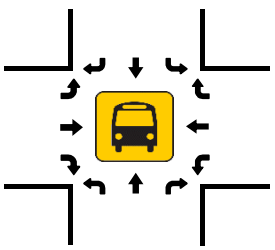
Total Vehicles (PM)



Pedestrians (Crosswalks)



Total Vehicles (PM)



Prepared by National Data & Surveying Services

Santa Rosa Rd & Verdugo Way

Peak Hour Turning Movement Count

ID: 18-05113-004
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Santa Rosa Rd — SOUTHBOUND

AM	0	2083	134	27	1290	AM
NOON	0	0	0	0	0	NOON
PM	0	1225	130	15	1895	PM

Verdugo Way — EASTBOUND

AM	NOON	PM		
0	0	0		
0	0	0	↰	0
0	0	0	↑	0
0	0	0	↱	0
0	0	0	↷	0
AM	NOON	PM		

WESTBOUND — Verdugo Way

PM	NOON	AM		
137	0	95	↰	1
0	0	0	←	0
550	0	318	↰	2
0	0	0	↷	0
414	0	689	→	
PM	NOON	AM		

Santa Rosa Rd — NORTHBOUND

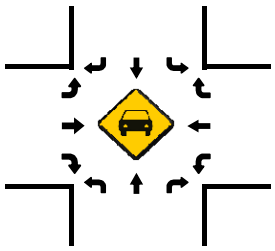
PM	1775	0	0	1743	284	PM
NOON	0	0	0	0	0	NOON
AM	2401	0	0	1168	555	AM

	0	3	2	0
	0	0	4	1

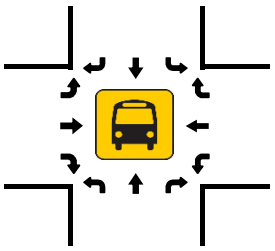
CONTROL: Signalized

TEV	4380	0	4084
	AM	NOON	PM
PHF	0.83		0.95

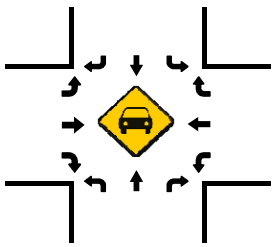
Total Vehicles (AM)



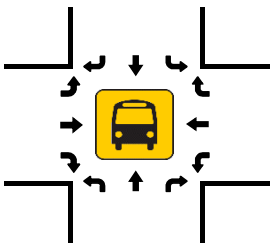
Total Vehicles (AM)



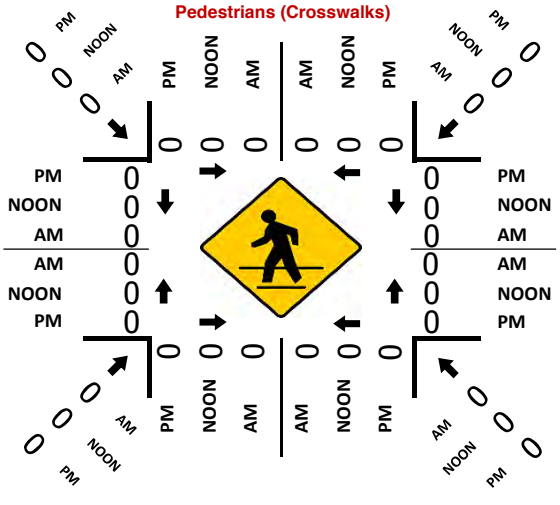
Total Vehicles (NOON)



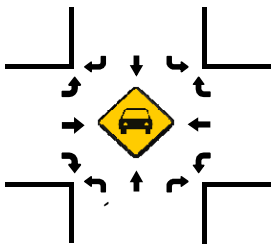
Total Vehicles (NOON)



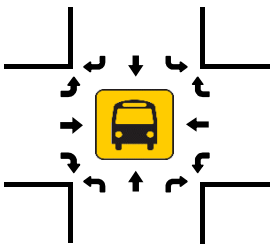
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



Prepared by National Data & Surveying Services

Santa Rosa Rd & Adolfo Rd

Peak Hour Turning Movement Count

ID: 18-05113-005
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

SOUTHBOUND — Santa Rosa Rd

AM	156	1342	53	6	879	AM
NOON	0	0	0	0	0	NOON
PM	122	719	33	19	1518	PM
	1	3	1	0		

EASTBOUND — Adolfo Rd

AM	NOON	PM	
548	0	796	
0	0	0	0
79	0	213	2
194	0	136	1
683	0	452	2

WESTBOUND — Adolfo Rd

	PM	NOON	AM
0	36	0	22
2	162	0	103
2	202	0	174
0	10	0	2
	348	0	445

CONTROL

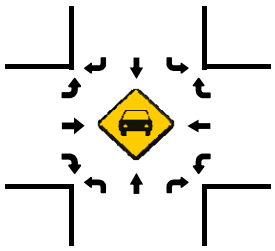
Signalized

TEV	4071 AM	0 NOON	4035 PM
PHF	0.87		0.95

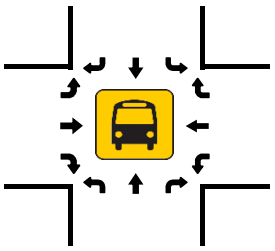
NORTHBOUND — Santa Rosa Rd

	0	2	3	0		
PM	1373	0	512	1250	169	PM
NOON	0	0	0	0	0	NOON
AM	2199	0	289	772	196	AM

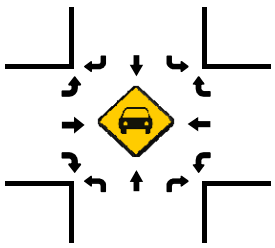
Total Vehicles (AM)



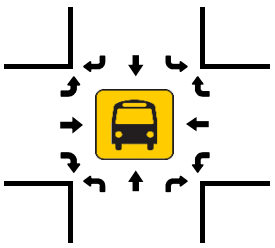
Total Vehicles (AM)



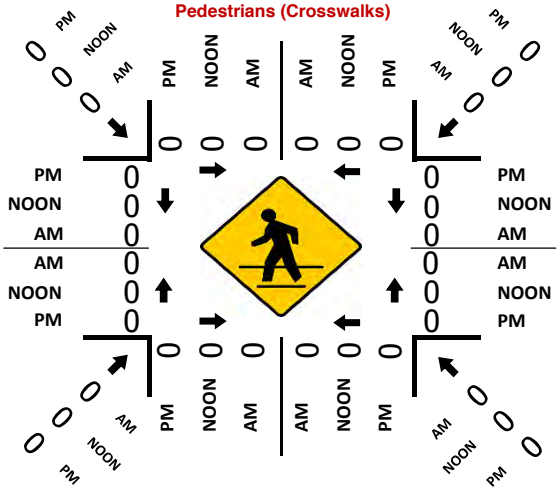
Total Vehicles (NOON)



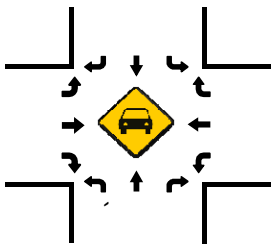
Total Vehicles (NOON)



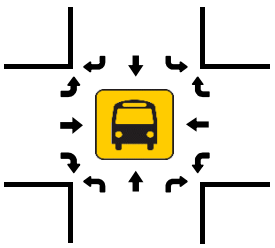
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



Prepared by National Data & Surveying Services

Santa Rosa Rd & Los Pueblos Dr

Peak Hour Turning Movement Count

ID: 18-05113-006
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

Santa Rosa Rd

SOUTHBOUND

AM	4	1442	122	0	930	AM
NOON	0	0	0	0	0	NOON
PM	18	802	53	2	1464	PM

Los Pueblos Dr — EASTBOUND

AM	NOON	PM	
24	0	81	
0	0	0	0
9	0	7	1
11	0	9	1
72	0	26	0

CONTROL

Signalized

TEV	2690	0	2595
	AM	NOON	PM
PHF	0.94		0.97

WESTBOUND — Los Pueblos Dr

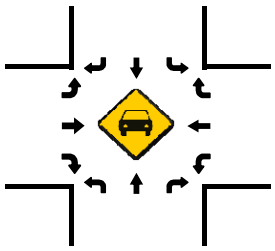
PM	NOON	AM	
110	0	104	1
13	0	5	1
84	0	54	1
1	0	0	0
137	0	168	

NORTHBOUND

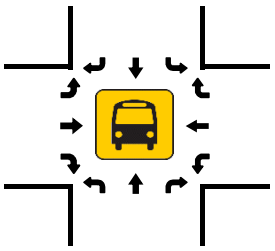
PM	913	1	50	1345	74	PM
NOON	0	0	0	0	0	NOON
AM	1568	0	15	817	35	AM

Santa Rosa Rd

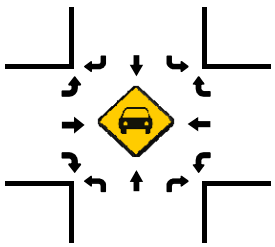
Total Vehicles (AM)



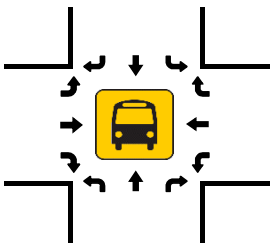
Total Vehicles (AM)



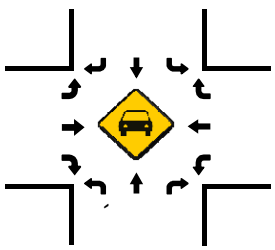
Total Vehicles (NOON)



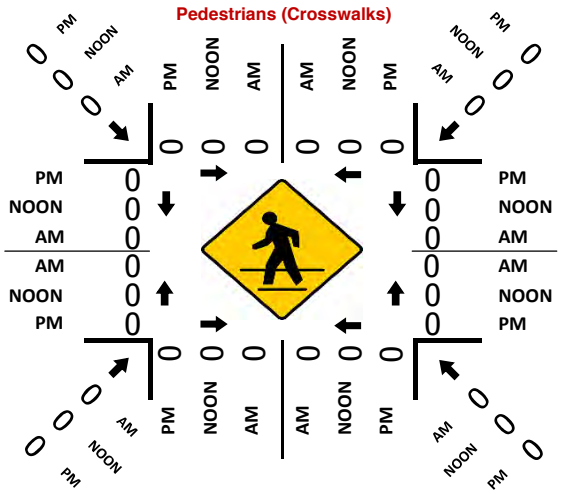
Total Vehicles (NOON)



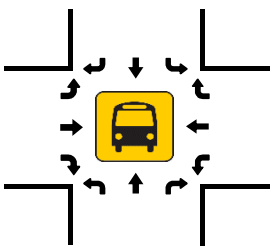
Total Vehicles (PM)



Pedestrians (Crosswalks)



Total Vehicles (PM)



Prepared by National Data & Surveying Services

Mission Oaks Blvd & Adolfo Rd

Peak Hour Turning Movement Count

ID: 18-05113-007
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS

AM	07:15 AM - 08:15 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Mission Oaks Blvd — SOUTHBOUND

	Left	Thru	Right	U-Turn	Total
AM	187	389	202	0	355
NOON	0	0	0	0	0
PM	109	177	91	0	708

Adolfo Rd — EASTBOUND

	Left	Thru	Right	U-Turn
AM	651	0	586	
NOON	0	0	0	
PM	1	2	2	0

	Left	Thru	Right	U-Turn
AM	0	0	0	0
NOON	131	0	202	1
PM	493	0	481	2
	165	0	47	1

CONTROL

Signalized

		AM	NOON	PM
TEV	2760	0	2423	
PHF		0.72		0.94

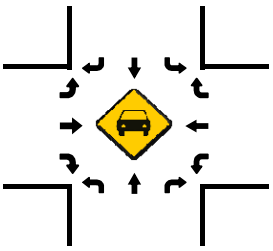
WESTBOUND — Adolfo Rd

	Left	Thru	Right	U-Turn
PM	0	253	0	79
NOON	2	425	0	286
AM	1	108	0	194
	0	3	0	0
PM		795	0	961
NOON	0	2	2	1
AM				

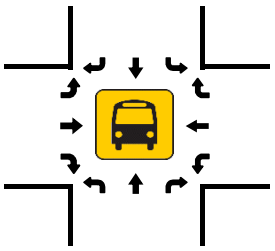
Mission Oaks Blvd — NORTHBOUND

	Left	Thru	Right	U-Turn	Total
PM	334	2	52	253	220
NOON	0	0	0	0	0
AM	793	45	178	145	266

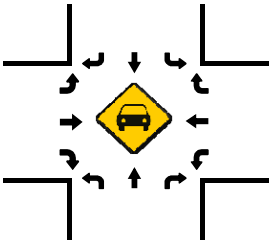
Total Vehicles (AM)



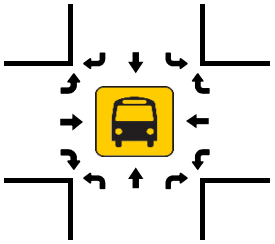
Total Vehicles (AM)



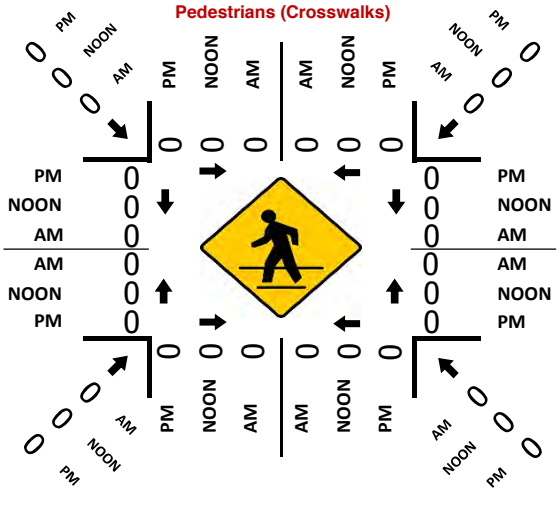
Total Vehicles (NOON)



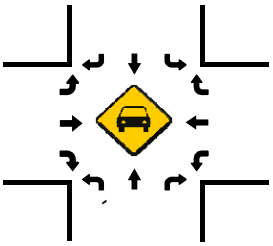
Total Vehicles (NOON)



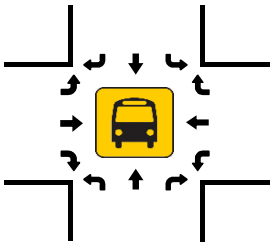
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



Prepared by National Data & Surveying Services

Camino Ruiz & Verdugo Way

Peak Hour Turning Movement Count

ID: 18-05113-008
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

Camino Ruiz — SOUTHBOUND

AM	63	18	26	0	69	AM
NOON	0	0	0	0	0	NOON
PM	71	5	3	0	125	PM

Verdugo Way — EASTBOUND

AM	NOON	PM	
120	0	428	
2	0	0	0
57	0	64	1
287	0	41	1
78	0	32	1

WESTBOUND — Verdugo Way

	PM	NOON	AM
0	39	0	2
1	289	0	27
1	0	0	1
0	0	0	0
	45	0	314

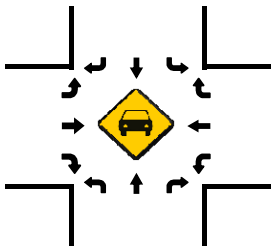
Camino Ruiz — NORTHBOUND

PM	37	0	68	22	1	PM
NOON	0	0	0	0	0	NOON
AM	97	0	28	10	1	AM

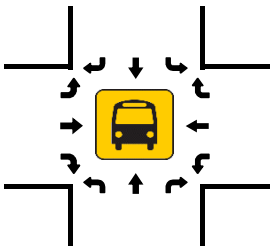
CONTROL: 2-Way Stop(NB/SB)

TEV	600 AM	0 NOON	635 PM
PHF	0.91		0.67

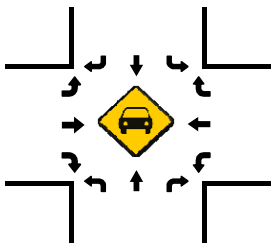
Total Vehicles (AM)



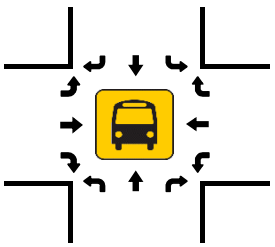
Total Vehicles (AM)



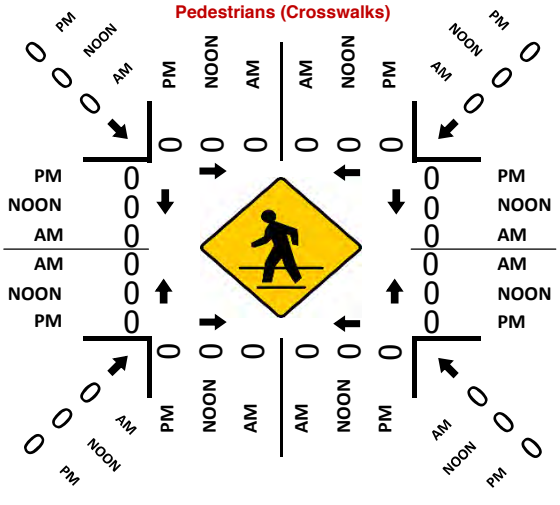
Total Vehicles (NOON)



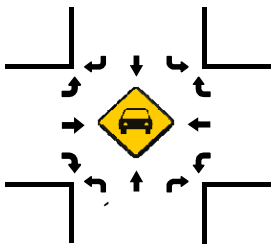
Total Vehicles (NOON)



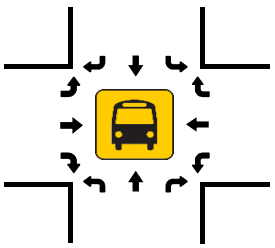
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



Prepared by National Data & Surveying Services

Camino Ruiz & Adolfo Rd

Peak Hour Turning Movement Count

ID: 18-05113-009
City: Camarillo

Day: Tuesday
Date: 03/20/2018

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

Camino Ruiz — SOUTHBOUND

AM	31	9	1	0	24
NOON	0	0	0	0	0
PM	13	4	1	0	66

Adolfo Rd — EASTBOUND

AM	NOON	PM		
233	0	380	⇦	
15	0	39	↰	0
20	0	64	↱	1
297	0	184	→	2
51	0	26	↳	0

CONTROL

2-Way Stop(NB/SB)

TEV	730 AM	0 NOON	776 PM
PHF	0.82		0.85

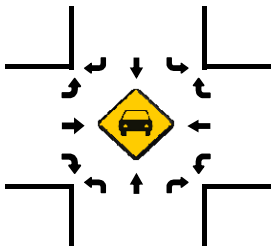
Adolfo Rd — WESTBOUND

PM	NOON	AM		
0	0	2	↰	0
265	0	179	←	2
43	0	78	↰	1
1	0	0	↰	0
257	0	335	⇨	

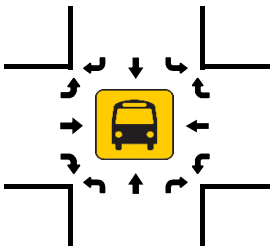
Camino Ruiz — NORTHBOUND

PM	73	0	63	2	71
NOON	0	0	0	0	0
AM	138	0	8	2	37

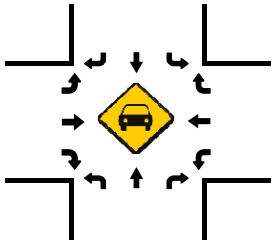
Total Vehicles (AM)



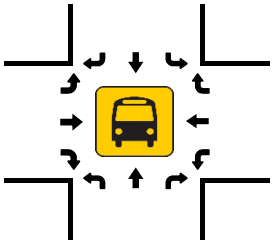
Total Vehicles (AM)



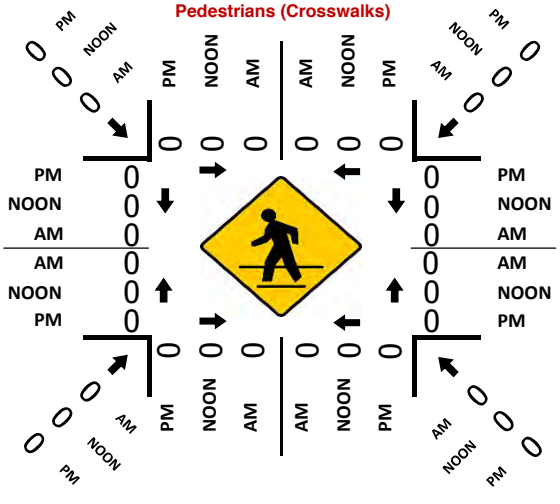
Total Vehicles (NOON)



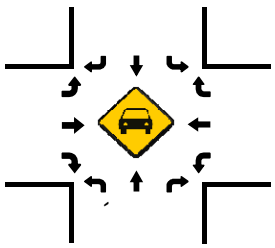
Total Vehicles (NOON)



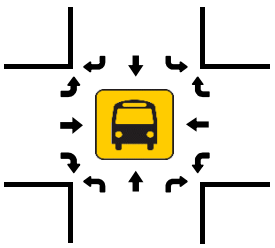
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



Appendix 2 – Approved Projects Trip Generation& Project Trip Generation (Buildout Conditions)

CAMINO RUIZ RESIDENTIAL
APPROVED PROJECTS TRIP GENERATION

City ID	Land Use	Size	Pass-by Factor	ADT Rate	ADT Trips	A.M. Rate	A.M. Trips	A.M. In %	A.M. In Trips	A.M. Out %	A.M. Out Trips	P.M. Rate	P.M. Trips	P.M. In %	P.M. In Trips	P.M. Out %	P.M. Out Trips
Industrial																	
2. IPD-390-396	Light Industrial/Office	344,515 S.F.	1.00	N/A	2,081	N/A	289		243		46	N/A	283		65		218
	Total				***2,081***		***289***		***243***		***46***		***283***		***65***		***218***
Commercial																	
Residential																	
7. RPD-194	Townhomes	129 Units	1.00	8.00	1,032	0.63	81	19%	15	81%	66	0.65	84	65%	55	35%	29
12. RPD-198	SFD	281 Units	1.00	9.00	2,529	0.71	200	18%	36	82%	164	0.73	205	64%	131	36%	74
	Total				***3,561***		***281***		***51***		***230***		***289***		***186***		***103***
	Approved Projects Total:				**5,642**		**570**		**294**		**276**		**572**		**251**		**321**

N/A = project trips derived from Mission Oaks Business Park Project report.

CAMINO RUIZ RESIDENTIAL
BUILDOUT PROJECTS TRIP GENERATION

City ID	Land Use	Size		Pass-by Factor	ADT Rate	ADT Trips	A.M. Rate	A.M. Trips	A.M. In %	A.M. Trips	A.M. Out %	A.M. Trips	P.M. Rate	P.M. Trips	P.M. In %	P.M. Trips	P.M. Out %	P.M. Trips
TAZ 5177																		
	Community Commercial	50,000	S.F.	0.65	N/A	-3,500	N/A	-42		-25		-17	N/A	-263		-132		-131
	Townhomes	129	Units	1.00	8.00	1,032	0.63	81	19%	15	81%	66	0.65	84	65%	55	35%	29
	Total					***-2,468***		***39***		***-10***		***49***		***-179***		***-77***		***-102***
TAZ 5179																		
	Office (50TSF+)	80	KSF	1.00	16.90	1,352	1.80	144	88%	127	12%	17	1.89	151	25%	38	75%	113
TAZ 5179																		
	R&D	170	KSF	1.00	8	-1360	1.16	-197	0.9	-177	0.1	-20	0.87	-148	0.65	-96	0.35	-52
	SFD	413	Units	1.00	6.00	2,478	0.48	198	21%	42	79%	156	0.44	182	66%	120	34%	62
	Total					***1,118***		***1***		***-135***		***136***		***34***		***24***		***10***
	Total:					**-1,350**		**40**		**-145**		**185**		**-145**		**-53**		**-92**

Appendix 3 - City of Camarillo Year 2030 Traffic Volume Data

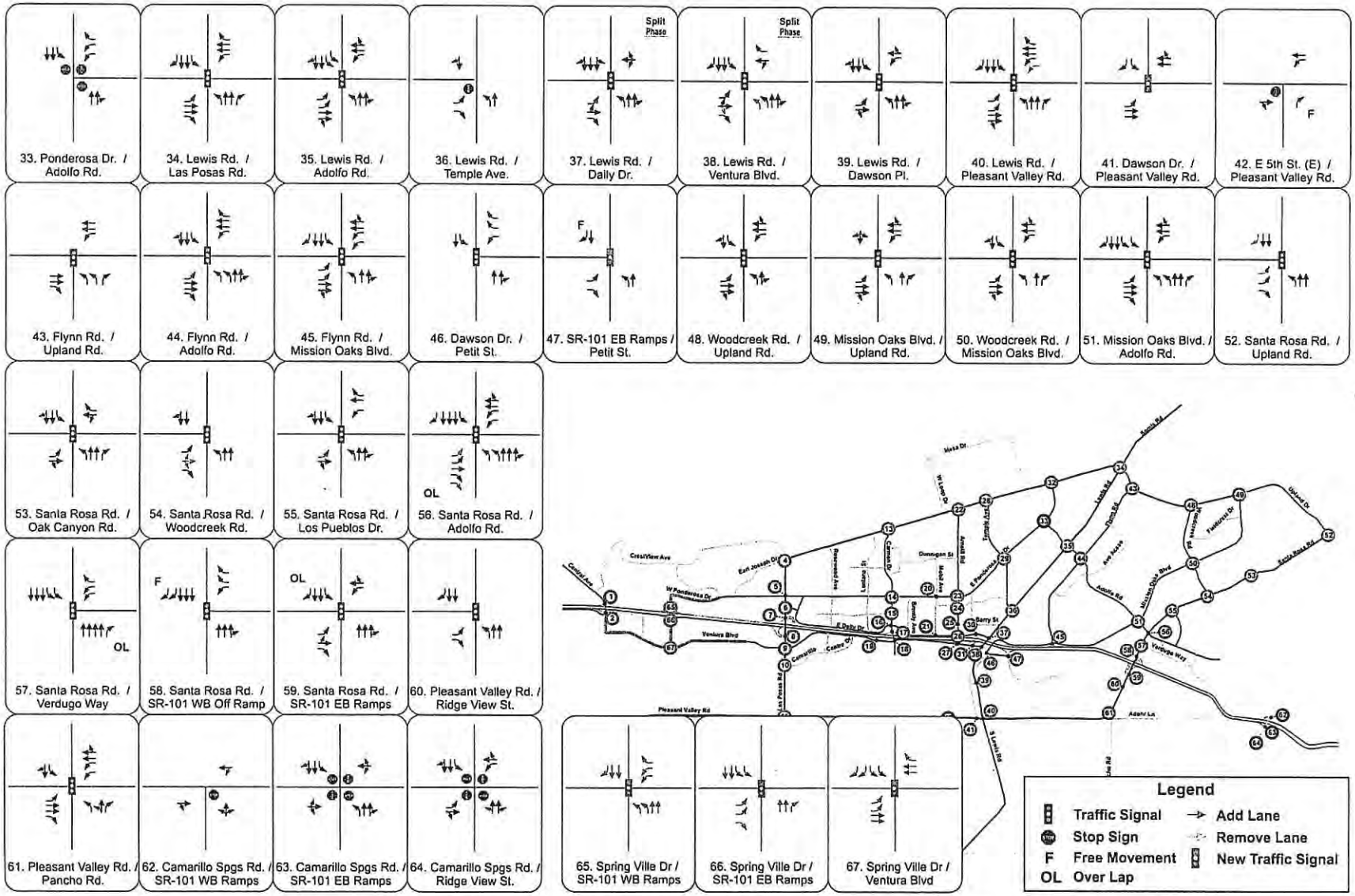


FIGURE 8: 2030 LANE GEOMETRY – INTERSECTIONS 33 THROUGH 67

ITERIS Innovation for better mobility

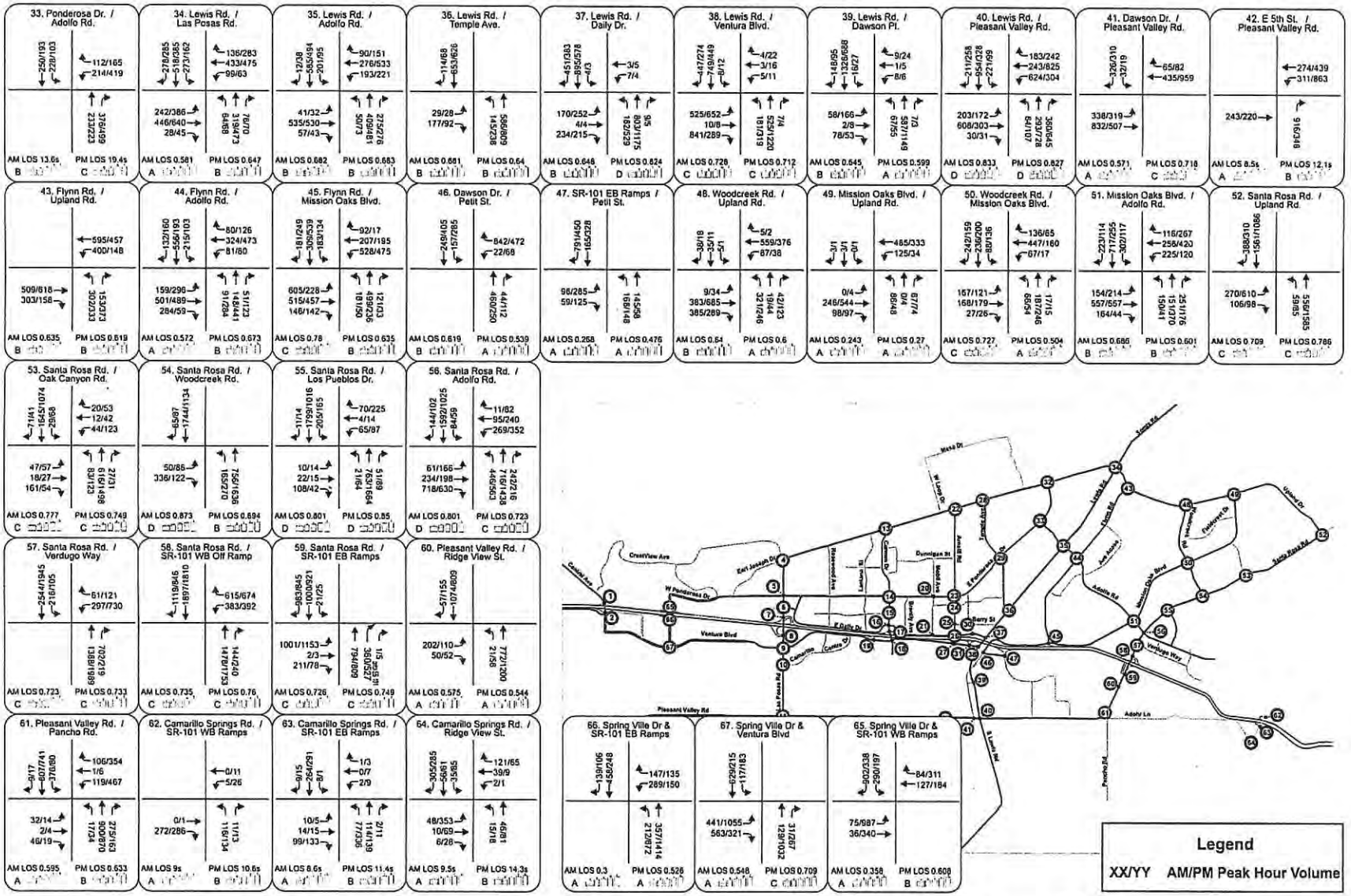


FIGURE 10: 2030 TURNING MOVEMENT VOLUMES AND LEVEL OF SERVICE – INTERSECTIONS 33 THROUGH 67

Appendix 4 - Existing Intersection Levels of Service

Intersection:	Adolfo Rd/Mission Oaks Blvd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Existing Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	223		223	0.07		54		54	0.05	
NBT	2			3200	145		145	0.05		253		253	0.08	
NBR	1			1600	266		266	0.17	*	220		220	0.14	*
SBL	2			3200	202		202	0.06	*	91		91	0.05	*
SBT	2			3200	389		389	0.12		177		177	0.06	
SBR	1			1600	187		187	0.12		109		109	0.07	
EBL	1			1600	131		131	0.08		202		202	0.13	*
EBT	2			3200	493		493	0.15	*	481		481	0.15	
EBR	1			1600	165		165	0.10		47		47	0.05	
WBL	1			1600	194		194	0.12	*	111		111	0.07	
WBT	2	*		3200	286		365	0.11		425		678	0.21	*
WBR	0	*		0	79		0	0.00		253		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.60					0.63

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	Los Pueblos Dr/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Existing Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	1			1600	15		15	0.05	*	51		51	0.05	
NBT	2	*		3200	817		852	0.27		1345		1419	0.44	*
NBR	0	*		0	35		0	0.00		74		0	0.00	
SBL	1			1600	122		122	0.08		55		55	0.05	*
SBT	2	*		3200	1442		1446	0.45	*	802		820	0.26	
SBR	0	*		0	4		0	0.00		18		0	0.00	
EBL	1			1600	9		9	0.05	*	7		7	0.05	*
EBT	1			1600	11		83	0.05		9		35	0.05	
EBR	0	*		0	72		0	0.00		26		0	0.00	
WBL	1			1600	54		54	0.05		85		85	0.05	
WBT	1			1600	5		5	0.05		13		13	0.05	
WBR	1			1600	104		104	0.07	*	110		110	0.07	*
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.72					0.71

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	Adolfo Rd/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Existing Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	289		289	0.09	*	512		512	0.16	
NBT	3	*		4800	772		968	0.20		1250		1419	0.30	*
NBR	0	*		0	196		0	0.00		169		0	0.00	
SBL	1			1600	59		59	0.05		52		52	0.05	*
SBT	3			4800	1342		1342	0.28	*	719		719	0.15	
SBR	1			1600	156		156	0.10		122		122	0.08	
EBL	2			3200	79		79	0.05		213		213	0.07	
EBT	1			1600	194		194	0.12		136		136	0.09	*
EBR	2			3200	683	289	394	0.12	*	452	256	196	0.06	
WBL	2			3200	176		176	0.06	*	212		212	0.07	*
WBT	2	*		3200	103		125	0.05		162		198	0.06	
WBR	0	*		0	22		0	0.00		36		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.65					0.60

Notes on analysis:	EBR volume reduced for RTOR (max reduction = NBL movement)
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	4. Santa Rosa Rd/Verdugo Way
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Existing Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	
NBT	4			6400	1168		1168	0.18		1743		1743	0.27	*
NBR	1			1600	555	159	396	0.25		284		284	0.18	
SBL	2			3200	161		161	0.05		145		145	0.05	*
SBT	3			4800	2083		2083	0.43	*	1225		1225	0.26	
SBR	0			0	0		0	0.00		0		0	0.00	
EBL	0			0	0		0	0.00		0		0	0.00	
EBT	0			0	0		0	0.00	*	0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	2			3200	318		318	0.10	*	550		550	0.17	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	1			1600	95		95	0.06		137		137	0.09	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.63					0.59

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	NB RT overlap arrow w/WB LT

Intersection:	5. Santa Rosa Rd/U.S. 101 NB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Existing Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00		0		0	0.00	
NBT	3	*		4800	1331		1331	0.28	*	1461		1461	0.30	*
NBR	0	*		0	137	137	0	0.00		161	161	0	0.00	
SBL	0			0	0		0	0.00	*	0		0	0.00	*
SBT	3			4800	1311		1311	0.27		1070		1070	0.22	
SBR	2			3200	996	996	0	0.00		698	698	0	0.00	
EBL	0			0	0		0	0.00		0		0	0.00	
EBT	0			0	0		0	0.00	*	0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	1			1600	216		216	0.14	*	353		353	0.22	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	2			3200	393		393	0.12		599		599	0.19	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.51					0.63

Notes on analysis:	**NB RT lane (on-ramp) is 200' (8 vehicle lengths) downstream from limit line. (8 veh/cycle)*(3600 sec/hr)/(55 sec cycle)= 523 vph**
Notes on lane configuration:	**can be served w/o impeding NB RT. NBT #3 >523 causes additional delay.**
Notes on signal operation:	**A.M.: NB T #3 = 444 vph, no additional delay P.M.: NB T #3 = 487 vhp, no additional delay**

Intersection:	6. Santa Rosa Rd/U.S. 101 SB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Existing Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00		0		0	0.00	*
NBT	3	*		4800	1131		1131	0.24	*	1105		1105	0.23	
NBR	0	*		0	2	2	0	0.00		2	2	0	0.00	
SBL	1			1600	7		7	0.05	*	9		9	0.05	
SBT	2			3200	750		750	0.23		899		899	0.28	*
SBR	1			1600	779	779	0	0.00		533	533	0	0.00	
EBL	0	*		0	807		0	0.00		893		0	0.00	
EBT	2	*		3200	4		811	0.25	*	1		894	0.28	*
EBR	1			1600	147		147	0.09		118		118	0.07	
WBL	1			1600	5		5	0.05	*	15		15	0.05	*
WBT	1	*		1600	0		6	0.05		0		4	0.05	
WBR	0	*		0	6		0	0.00		4		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.69					0.71

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	7. Pancho Road& Pleasant Valley Road
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Existing Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0	*		0	95		0	0.00		345		0	0.00	
NBT	2	*		3200	3		98	0.05	*	4		349	0.11	
NBR	1			1600	52		52	0.05		316		316	0.20	*
SBL	1			1600	49		49	0.05	*	27		27	0.05	*
SBT	1	*		1600	4		25	0.05		4		23	0.05	
SBR	0	*		0	21		0	0.00		19		0	0.00	
EBL	1			1600	15		15	0.05		18		18	0.05	*
EBT	2			3200	897		897	0.28	*	714		714	0.22	
EBR	1			1600	163		163	0.10		59		59	0.05	
WBL	2			3200	285		285	0.09	*	69		69	0.05	
WBT	2	*		3200	553		569	0.18		784		816	0.26	*
WBR	0	*		0	16		0	0.00		32		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.57					0.65

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

HCS7 Two-Way Stop-Control Report

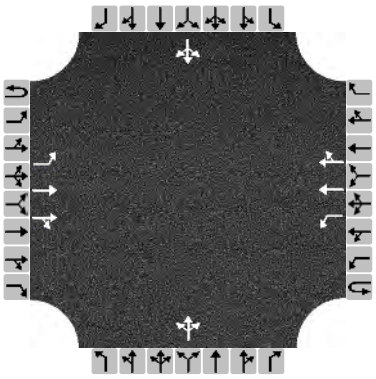
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	2018
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume, V (veh/h)		35	297	51		78	179	2		8	2	37		1	9	31
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		35				78					47				41	
Capacity, c (veh/h)		1385				1201					618				631	
v/c Ratio		0.03				0.06					0.08				0.06	
95% Queue Length, Q_{95} (veh)		0.1				0.2					0.2				0.2	
Control Delay (s/veh)		7.7				8.2					11.3				11.1	
Level of Service, LOS		A				A					B				B	
Approach Delay (s/veh)	0.7				2.5				11.3				11.1			
Approach LOS									B				B			

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HCS7 Two-Way Stop-Control Report

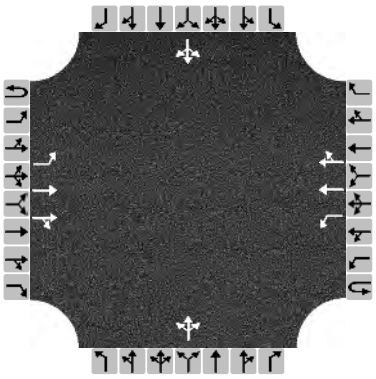
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	2018
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume, V (veh/h)		103	184	26		44	265	0		63	2	71		1	4	13
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		103				44					136				18	
Capacity, c (veh/h)		1289				1351					493				568	
v/c Ratio		0.08				0.03					0.28				0.03	
95% Queue Length, Q_{95} (veh)		0.3				0.1					1.1				0.1	
Control Delay (s/veh)		8.0				7.8					15.1				11.5	
Level of Service, LOS		A				A					C				B	
Approach Delay (s/veh)	2.6				1.1				15.1				11.5			
Approach LOS									C				B			

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HCS7 Two-Way Stop-Control Report

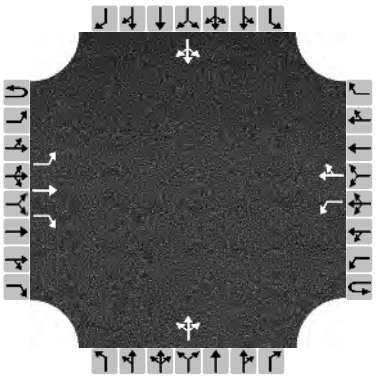
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	2018
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume, V (veh/h)		59	278	78		1	27	2		28	10	1		26	18	63
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		59				1					39				107	
Capacity, c (veh/h)		1576				1196					464				692	
v/c Ratio		0.04				0.00					0.08				0.15	
95% Queue Length, Q_{95} (veh)		0.1				0.0					0.3				0.5	
Control Delay (s/veh)		7.4				8.0					13.5				11.2	
Level of Service, LOS		A				A					B				B	
Approach Delay (s/veh)	1.0				0.3				13.5				11.2			
Approach LOS									B				B			

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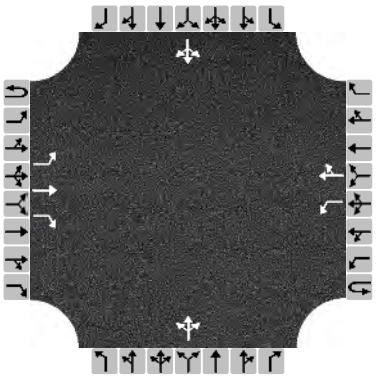
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	2018
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume, V (veh/h)		64	41	32		0	289	39		68	22	1		3	5	71
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		64				0					91				79	
Capacity, c (veh/h)		1225				1519					415				684	
v/c Ratio		0.05				0.00					0.22				0.12	
95% Queue Length, Q_{95} (veh)		0.2				0.0					0.8				0.4	
Control Delay (s/veh)		8.1				7.4					16.1				11.0	
Level of Service, LOS		A				A					C				B	
Approach Delay (s/veh)	3.8				0.0				16.1				11.0			
Approach LOS									C				B			

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Appendix 5 – Future and Future + Project Intersection Levels of Service

Future AM and PM Peak Hour

Intersection:	1. Adolfo Rd/Mission Oaks Blvd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	223		223	0.07		54		54	0.05	
NBT	2			3200	145		145	0.05		253		253	0.08	
NBR	1			1600	266		266	0.17	*	220		220	0.14	*
SBL	2			3200	202		202	0.06	*	91		91	0.05	*
SBT	2			3200	389		389	0.12		177		177	0.06	
SBR	1			1600	187		187	0.12		109		109	0.07	
EBL	1			1600	131		131	0.08		202		202	0.13	*
EBT	2			3200	535		535	0.17	*	501		501	0.16	
EBR	1			1600	165		165	0.10		47		47	0.05	
WBL	1			1600	194		194	0.12	*	111		111	0.07	
WBT	2	*		3200	308		387	0.12		465		718	0.22	*
WBR	0	*		0	79		0	0.00		253		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.62					0.64

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	2. Los Pueblos Dr/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	1			1600	16		16	0.05	*	56		56	0.05	
NBT	2	*		3200	825		860	0.27		1366		1440	0.45	*
NBR	0	*		0	35		0	0.00		74		0	0.00	
SBL	1			1600	128		128	0.08		57		57	0.05	*
SBT	2	*		3200	1469		1473	0.46	*	814		832	0.26	
SBR	0	*		0	4		0	0.00		18		0	0.00	
EBL	1			1600	9		9	0.05	*	7		7	0.05	*
EBT	1			1600	17		95	0.06		11		38	0.05	
EBR	0	*		0	78		0	0.00		27		0	0.00	
WBL	1			1600	54		54	0.05		85		85	0.05	
WBT	1			1600	6		6	0.05		18		18	0.05	
WBR	1			1600	106		106	0.07	*	116		116	0.07	*
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.73					0.72

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	3. Adolfo Rd/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	295		295	0.09	*	527		527	0.16	
NBT	3	*		4800	774		970	0.20		1260		1429	0.30	*
NBR	0	*		0	196		0	0.00		169		0	0.00	
SBL	1			1600	73		73	0.05		56		56	0.05	*
SBT	3			4800	1360		1360	0.28	*	726		726	0.15	
SBR	1			1600	156		156	0.10		122		122	0.08	
EBL	2			3200	79		79	0.05		213		213	0.07	
EBT	1			1600	215		215	0.13	*	150		150	0.09	*
EBR	2			3200	704	295	409	0.13		458	256	202	0.06	
WBL	2			3200	176		176	0.06	*	212		212	0.07	*
WBT	2	*		3200	119		148	0.05		185		237	0.07	
WBR	0	*		0	29		0	0.00		52		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.66					0.61

Notes on analysis:	EBR volume reduced for RTOR (max reduction = NBL movement)
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	4. Santa Rosa Rd/Verdugo Way
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	
NBT	4			6400	1171		1171	0.18		1755		1755	0.27	*
NBR	1			1600	737	201	536	0.34		372		372	0.23	
SBL	2			3200	179		179	0.06		150		150	0.05	*
SBT	3			4800	2104		2104	0.44	*	1233		1233	0.26	
SBR	0			0	0		0	0.00		0		0	0.00	
EBL	0			0	0		0	0.00		0		0	0.00	
EBT	0			0	0		0	0.00	*	0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	2			3200	403		403	0.13	*	725		725	0.23	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	1			1600	100		100	0.06		152		152	0.10	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.66					0.65

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	NB RT overlap arrow w/WB LT

Intersection:	5. Santa Rosa Rd/U.S. 101 NB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00		0		0	0.00	
NBT	3	*		4800	1435		1435	0.30	*	1512		1512	0.32	*
NBR	0	*		0	137	137	0	0.00		161	161	0	0.00	
SBL	0			0	0		0	0.00	*	0		0	0.00	*
SBT	3			4800	1381		1381	0.29		1179		1179	0.25	
SBR	2			3200	1032	1032	0	0.00		773	773	0	0.00	
EBL	0			0	0		0	0.00	*	0		0	0.00	
EBT	0			0	0		0	0.00		0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	1			1600	216		216	0.14		353		353	0.22	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	2			3200	474		474	0.15	*	648		648	0.20	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.55					0.64

Notes on analysis:	**NB RT lane (on-ramp) is 200' (8 vehicle lengths) downstream from limit line. (8 veh/cycle)*(3600 sec/hr)/(55 sec cycle)= 523 vph**
Notes on lane configuration:	**can be served w/o impeding NB RT. NBT #3 >523 causes additional delay.**
Notes on signal operation:	**A.M.: NB T #3 = 479 vph, no additional delay P.M.: NB T #3 = 504 vhp, no additional delay**

Intersection:	6. Santa Rosa Rd/U.S. 101 SB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00		0		0	0.00	*
NBT	3	*		4800	1157		1157	0.24	*	1118		1118	0.23	
NBR	0	*		0	2	2	0	0.00		2	2	0	0.00	
SBL	1			1600	7		7	0.05	*	9		9	0.05	
SBT	2			3200	764		764	0.24		925		925	0.29	*
SBR	1			1600	835	835	0	0.00		616	616	0	0.00	
EBL	0	*		0	885		0	0.00		931		0	0.00	
EBT	2	*		3200	4		889	0.28	*	1		932	0.29	*
EBR	1			1600	147		147	0.09		118		118	0.07	
WBL	1			1600	5		5	0.05	*	15		15	0.05	*
WBT	1	*		1600	0		6	0.05		0		4	0.05	
WBR	0	*		0	6		0	0.00		4		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.72					0.73

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	7. Pancho Road& Pleasant Valley Road
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0	*		0	95		0	0.00		345		0	0.00	
NBT	2	*		3200	3		98	0.05	*	4		349	0.11	
NBR	1			1600	60		60	0.05		318		318	0.20	*
SBL	1			1600	49		49	0.05	*	27		27	0.05	*
SBT	1	*		1600	4		25	0.05		4		23	0.05	
SBR	0	*		0	21		0	0.00		19		0	0.00	
EBL	1			1600	15		15	0.05		18		18	0.05	*
EBT	2			3200	921		921	0.29	*	721		721	0.23	
EBR	1			1600	163		163	0.10		59		59	0.05	
WBL	2			3200	291		291	0.09	*	78		78	0.05	
WBT	2	*		3200	562		578	0.18		804		836	0.26	*
WBR	0	*		0	16		0	0.00		32		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.58					0.66

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

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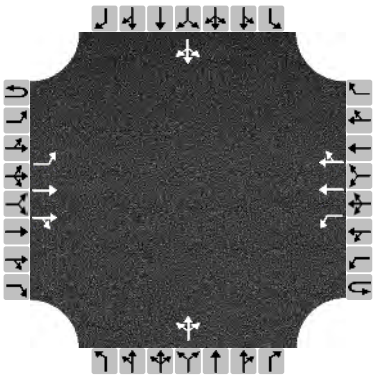
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	BL
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume, V (veh/h)		35	327	54		78	186	2		23	2	37		1	9	31
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		35				78					62				41	
Capacity, c (veh/h)		1376				1167					478				612	
v/c Ratio		0.03				0.07					0.13				0.07	
95% Queue Length, Q_{95} (veh)		0.1				0.2					0.4				0.2	
Control Delay (s/veh)		7.7				8.3					13.7				11.3	
Level of Service, LOS		A				A					B				B	
Approach Delay (s/veh)	0.6				2.4				13.7				11.3			
Approach LOS									B				B			

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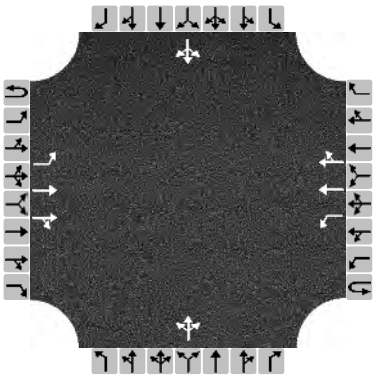
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	BL
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume, V (veh/h)		103	192	38		44	294	0		70	2	71		1	4	13
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No				No				No				No		
Median Type/Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		103				44					143				18	
Capacity, c (veh/h)		1257				1328					462				542	
v/c Ratio		0.08				0.03					0.31				0.03	
95% Queue Length, Q_{95} (veh)		0.3				0.1					1.3				0.1	
Control Delay (s/veh)		8.1				7.8					16.3				11.9	
Level of Service, LOS		A				A					C				B	
Approach Delay (s/veh)		2.5				1.0				16.3				11.9		
Approach LOS										C				B		

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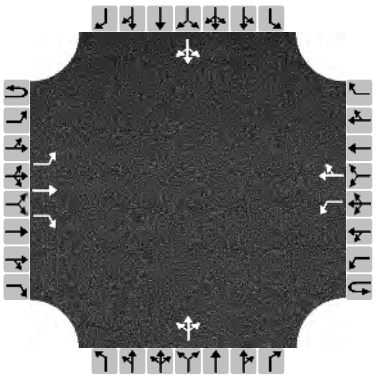
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	BL
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume, V (veh/h)		59	466	90		2	65	2		90	25	3		26	21	63
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		59				2					118				110	
Capacity, c (veh/h)		1526				1009					322				524	
v/c Ratio		0.04				0.00					0.37				0.21	
95% Queue Length, Q_{95} (veh)		0.1				0.0					1.7				0.8	
Control Delay (s/veh)		7.5				8.6					22.6				13.7	
Level of Service, LOS		A				A					C				B	
Approach Delay (s/veh)	0.7				0.2				22.6				13.7			
Approach LOS									C				B			

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HCS7 Two-Way Stop-Control Report

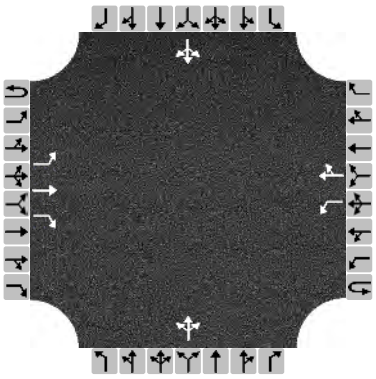
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	BL
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume, V (veh/h)		64	92	74		2	455	39		92	29	2		3	17	71
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		64				2					123				91	
Capacity, c (veh/h)		1063				1404					282				489	
v/c Ratio		0.06				0.00					0.44				0.19	
95% Queue Length, Q_{95} (veh)		0.2				0.0					2.3				0.7	
Control Delay (s/veh)		8.6				7.6					27.6				14.0	
Level of Service, LOS		A				A					D				B	
Approach Delay (s/veh)	2.4				0.0				27.6				14.0			
Approach LOS									D				B			

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Future + Project AM and PM Peak Hour

Intersection:	1. Adolfo Rd/Mission Oaks Blvd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline + Project Conditions

					AM Peak Hour					PM Peak Hour				
Movement	Lanes	Shared Movement	Split Phase	Capacity	Vol	Reduction (RTOR)	Adjusted Volume	v/c	Critical Movement	Vol	Reduction (RTOR)	Adjusted Volume	v/c	Critical Movement
NBL	2			3200	223		223	0.07		54		54	0.05	
NBT	2			3200	145		145	0.05		253		253	0.08	
NBR	1			1600	267		267	0.17	*	222		222	0.14	*
SBL	2			3200	202		202	0.06	*	91		91	0.05	*
SBT	2			3200	389		389	0.12		177		177	0.06	
SBR	1			1600	187		187	0.12		109		109	0.07	
EBL	1			1600	131		131	0.08		202		202	0.13	*
EBT	2			3200	541		541	0.17	*	518		518	0.16	
EBR	1			1600	165		165	0.10		47		47	0.05	
WBL	1			1600	196		196	0.12	*	112		112	0.07	
WBT	2	*		3200	330		409	0.13		474		727	0.23	*
WBR	0	*		0	79		0	0.00		253		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.62					0.64

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	2. Los Pueblos Dr/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline + Project Conditions

					AM Peak Hour					PM Peak Hour				
Movement	Lanes	Shared Movement	Split Phase	Capacity	Vol	Reduction (RTOR)	Adjusted Volume	v/c	Critical Movement	Vol	Reduction (RTOR)	Adjusted Volume	v/c	Critical Movement
NBL	1			1600	16		16	0.05	*	56		56	0.05	
NBT	2	*		3200	832		867	0.27		1369		1443	0.45	*
NBR	0	*		0	35		0	0.00		74		0	0.00	
SBL	1			1600	128		128	0.08		57		57	0.05	*
SBT	2	*		3200	1471		1475	0.46	*	820		838	0.26	
SBR	0	*		0	4		0	0.00		18		0	0.00	
EBL	1			1600	9		9	0.05	*	7		7	0.05	*
EBT	1			1600	17		95	0.06		11		38	0.05	
EBR	0	*		0	78		0	0.00		27		0	0.00	
WBL	1			1600	54		54	0.05		85		85	0.05	
WBT	1			1600	6		6	0.05		18		18	0.05	
WBR	1			1600	106		106	0.07	*	116		116	0.07	*
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.73					0.72

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	3. Adolfo Rd/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	307		307	0.10	*	531		531	0.17	
NBT	3	*		4800	782		977	0.20		1263		1432	0.30	*
NBR	0	*		0	195		0	0.00		169		0	0.00	
SBL	1			1600	73		73	0.05		56		56	0.05	*
SBT	3			4800	1362		1362	0.28	*	732		732	0.15	
SBR	1			1600	156		156	0.10		122		122	0.08	
EBL	2			3200	79		79	0.05		212		212	0.07	
EBT	1			1600	219		219	0.14	*	162		162	0.10	*
EBR	2			3200	707	307	400	0.13		465	302	163	0.05	
WBL	2			3200	176		176	0.06	*	212		212	0.07	*
WBT	2	*		3200	135		164	0.05		191		243	0.08	
WBR	0	*		0	29		0	0.00		52		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.67					0.62

Notes on analysis:	EBR volume reduced for RTOR (max reduction = NBL movement)
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	4. Santa Rosa Rd/Verdugo Way
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	
NBT	4			6400	1171		1171	0.18		1755		1755	0.27	*
NBR	1			1600	766	256	510	0.32		454	385	69	0.05	
SBL	2			3200	184		184	0.06		165		165	0.05	*
SBT	3			4800	2104		2104	0.44	*	1233		1233	0.26	
SBR	0			0	0		0	0.00		0		0	0.00	
EBL	0			0	0		0	0.00		0		0	0.00	
EBT	0			0	0		0	0.00	*	0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	2			3200	512		512	0.16	*	766		766	0.24	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	1			1600	120		120	0.08		159		159	0.10	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.70					0.67

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	NB RT overlap arrow w/WB LT

Intersection:	5. Santa Rosa Rd/U.S. 101 NB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00		0		0	0.00	
NBT	3	*		4800	1452		1452	0.30	*	1560		1560	0.33	*
NBR	0	*		0	137	137	0	0.00		161	161	0	0.00	
SBL	0			0	0		0	0.00	*	0		0	0.00	*
SBT	3			4800	1440		1440	0.30		1201		1201	0.25	
SBR	2			3200	1080	1080	0	0.00		792	792	0	0.00	
EBL	0			0	0		0	0.00	*	0		0	0.00	
EBT	0			0	0		0	0.00		0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	1			1600	216		216	0.14		353		353	0.22	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	2			3200	486		486	0.15	*	682		682	0.21	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.55					0.65

Notes on analysis:	**NB RT lane (on-ramp) is 200' (8 vehicle lengths) downstream from limit line. (8 veh/cycle)*(3600 sec/hr)/(55 sec cycle)= 523 vph**
Notes on lane configuration:	**can be served w/o impeding NB RT. NBT #3 >523 causes additional delay.**
Notes on signal operation:	**A.M.: NB T #3 = 481 vph, no additional delay P.M.: NB T #3 = 521 vhp, no additional delay**

Intersection:	6. Santa Rosa Rd/U.S. 101 SB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00		0		0	0.00	*
NBT	3	*		4800	1161		1161	0.24	*	1129		1129	0.24	
NBR	0	*		0	2	2	0	0.00		2	2	0	0.00	
SBL	1			1600	7		7	0.05	*	9		9	0.05	
SBT	2			3200	779		779	0.24		930		930	0.29	*
SBR	1			1600	879	451	428	0.27		633	485	148	0.09	
EBL	0	*		0	898		0	0.00		968		0	0.00	
EBT	2	*		3200	4		902	0.28	*	1		969	0.30	*
EBR	1			1600	147		147	0.09		118		118	0.07	
WBL	1			1600	5		5	0.05	*	15		15	0.05	*
WBT	1	*		1600	0		6	0.05		0		4	0.05	
WBR	0	*		0	6		0	0.00		4		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.72					0.74

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	7. Pancho Road& Pleasant Valley Road
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Baseline + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0	*		0	95		0	0.00		345		0	0.00	
NBT	2	*		3200	3		98	0.05	*	4		349	0.11	
NBR	1			1600	62		62	0.05		322		322	0.20	*
SBL	1			1600	49		49	0.05	*	27		27	0.05	*
SBT	1	*		1600	4		25	0.05		4		23	0.05	
SBR	0	*		0	21		0	0.00		19		0	0.00	
EBL	1			1600	15		15	0.05		18		18	0.05	*
EBT	2			3200	923		923	0.29	*	728		728	0.23	
EBR	1			1600	163		163	0.10		59		59	0.05	
WBL	2			3200	297		297	0.09	*	80		80	0.05	
WBT	2	*		3200	571		587	0.18		807		839	0.26	*
WBR	0	*		0	16		0	0.00		32		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.58					0.66

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

HCS7 Two-Way Stop-Control Report

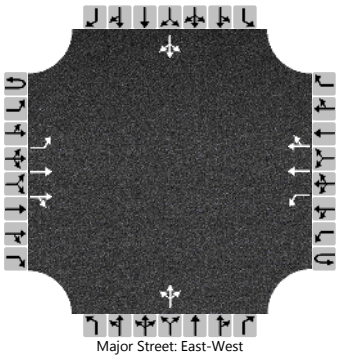
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	BLPR
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	35	327	58	0	78	186	2		38	2	37		1	9	31
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		35				78					77				41	
Capacity, c (veh/h)		1376				1163					425				611	
v/c Ratio		0.03				0.07					0.18				0.07	
95% Queue Length, Q_{95} (veh)		0.1				0.2					0.7				0.2	
Control Delay (s/veh)		7.7				8.3					15.3				11.3	
Level of Service (LOS)		A				A					C				B	
Approach Delay (s/veh)	0.6				2.4				15.3				11.3			
Approach LOS									C				B			

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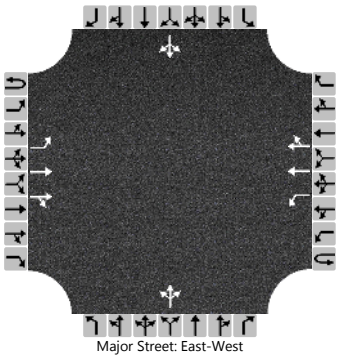
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	BLPR
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	103	192	49	0	44	294	0		76	2	72		1	4	13
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		103				44					150				18	
Capacity, c (veh/h)		1257				1315					450				538	
v/c Ratio		0.08				0.03					0.33				0.03	
95% Queue Length, Q_{95} (veh)		0.3				0.1					1.5				0.1	
Control Delay (s/veh)		8.1				7.8					17.0				11.9	
Level of Service (LOS)		A				A					C				B	
Approach Delay (s/veh)	2.4				1.0				17.0				11.9			
Approach LOS									C				B			

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HCS7 Two-Way Stop-Control Report

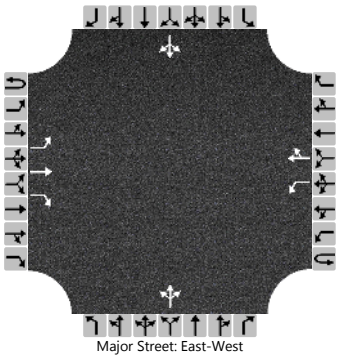
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	BLPR
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume (veh/h)		59	485	105		2	137	11		147	31	3		28	23	63
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No														
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		59				2					181				114	
Capacity, c (veh/h)		1426				979					269				441	
v/c Ratio		0.04				0.00					0.67				0.26	
95% Queue Length, Q_{95} (veh)		0.1				0.0					5.5				1.0	
Control Delay (s/veh)		7.6				8.7					44.6				16.0	
Level of Service (LOS)		A				A					E				C	
Approach Delay (s/veh)		0.7				0.1				44.6				16.0		
Approach LOS										E				C		

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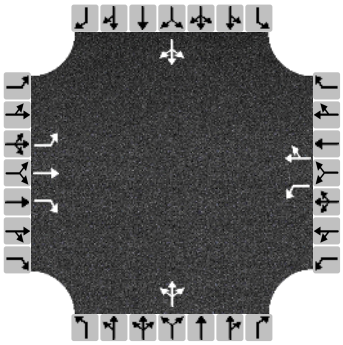
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	FUPR
Analysis Time Period (hrs)	1.00
Time Analyzed	AM PEAK HOUR
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	59	485	105	2	137	11	147	31	3	28	23	63
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	T	R	L	TR		LTR			LTR		
Flow Rate, v (veh/h)	59	485	105	2	148		181			114		
Percent Heavy Vehicles	2	2	2	2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20	3.20	3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.052	0.431	0.093	0.002	0.132		0.161			0.101		
Final Departure Headway, hd (s)	6.43	5.92	5.21	7.76	7.20		7.34			6.88		
Final Degree of Utilization, x	0.105	0.798	0.152	0.004	0.296		0.369			0.218		
Move-Up Time, m (s)	2.3	2.3	2.3	2.3	2.3		2.3			2.3		
Service Time, ts (s)	4.13	3.62	2.91	5.46	4.90		5.04			4.58		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	59	485	105	2	148		181			114		
Capacity	560	608	691	464	500		491			523		
95% Queue Length, Q_{95} (veh)	0.4	10.2	0.5	0.0	1.3		1.7			0.8		
Control Delay (s/veh)	9.9	30.6	8.8	10.5	12.9		14.3			11.5		
Level of Service, LOS	A	D	A	B	B		B			B		
Approach Delay (s/veh)	25.2			12.9			14.3			11.5		
Approach LOS	D			B			B			B		
Intersection Delay, s/veh | LOS	20.3						C					

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HCS7 Two-Way Stop-Control Report

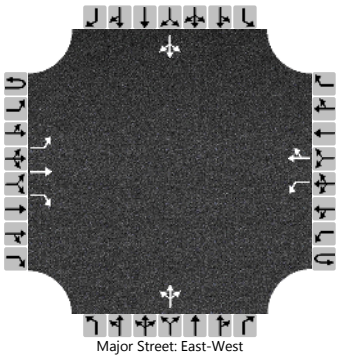
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	BLPR
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume (veh/h)		64	146	119		2	483	42		114	32	2		9	22	71
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No														
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		64				2					148				102	
Capacity, c (veh/h)		1035				1292					240				411	
v/c Ratio		0.06				0.00					0.62				0.25	
95% Queue Length, Q_{95} (veh)		0.2				0.0					4.4				1.0	
Control Delay (s/veh)		8.7				7.8					43.5				16.6	
Level of Service (LOS)		A				A					E				C	
Approach Delay (s/veh)		1.7				0.0				43.5				16.6		
Approach LOS										E				C		

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HCS7 All-Way Stop Control Report

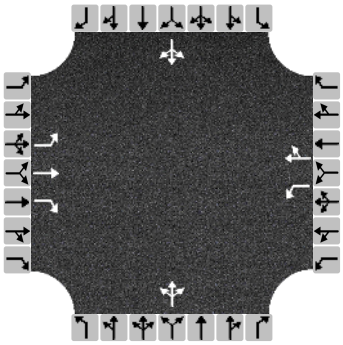
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	FUPR
Analysis Time Period (hrs)	1.00
Time Analyzed	PM PEAK HOUR
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	64	146	119	2	483	42	114	32	2	9	22	71
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	T	R	L	TR		LTR			LTR		
Flow Rate, v (veh/h)	64	146	119	2	525		148			102		
Percent Heavy Vehicles	2	2	2	2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20	3.20	3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.057	0.130	0.106	0.002	0.467		0.132			0.091		
Final Departure Headway, hd (s)	6.84	6.33	5.62	6.92	6.35		7.61			6.97		
Final Degree of Utilization, x	0.122	0.257	0.186	0.004	0.926		0.313			0.197		
Move-Up Time, m (s)	2.3	2.3	2.3	2.3	2.3		2.3			2.3		
Service Time, ts (s)	4.54	4.03	3.32	4.62	4.05		5.31			4.67		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	64	146	119	2	525		148			102		
Capacity	526	569	641	520	567		473			517		
95% Queue Length, Q_{95} (veh)	0.4	1.0	0.7	0.0	19.5		1.4			0.7		
Control Delay (s/veh)	10.5	11.2	9.6	9.6	65.1		13.8			11.4		
Level of Service, LOS	B	B	A	A	F		B			B		
Approach Delay (s/veh)	10.5			64.9			13.8			11.4		
Approach LOS	B			F			B			B		
Intersection Delay, s/veh | LOS	36.9						E					

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Future + Project Traffic Signal Warrant 3 – Peak Hour


AM
PM
807
863
186
149


186
149
807
863

Appendix 6 - Buildout and Buildout + Project Intersection Levels of Service

Buildout AM and PM Peak Hour

Intersection:	1. Adolfo Rd/Mission Oaks Blvd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	150		150	0.05		41		41	0.05	
NBT	2			3200	151		151	0.05		370		370	0.12	*
NBR	1			1600	251		251	0.16	*	176		176	0.11	
SBL	2			3200	302		302	0.09	*	117		117	0.05	*
SBT	2			3200	217		217	0.07		265		265	0.08	
SBR	1			1600	223		223	0.14		114		114	0.07	
EBL	1			1600	154		154	0.10		214		214	0.13	*
EBT	2			3200	556		556	0.17	*	547		547	0.17	
EBR	1			1600	165		165	0.10		47		47	0.05	
WBL	1			1600	225		225	0.14	*	120		120	0.08	
WBT	2	*		3200	265		383	0.12		405		672	0.21	*
WBR	0	*		0	118		0	0.00		267		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.67					0.61

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	2. Los Pueblos Dr/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	1			1600	21		21	0.05	*	64		64	0.05	
NBT	2	*		3200	760		811	0.25		1659		1748	0.55	*
NBR	0	*		0	51		0	0.00		89		0	0.00	
SBL	1			1600	205		205	0.13		165		165	0.10	*
SBT	2	*		3200	1798		1809	0.57	*	1012		1026	0.32	
SBR	0	*		0	11		0	0.00		14		0	0.00	
EBL	1			1600	10		10	0.05		14		14	0.05	
EBT	1			1600	22		130	0.08	*	15		57	0.05	*
EBR	0	*		0	108		0	0.00		42		0	0.00	
WBL	1			1600	65		65	0.05	*	87		87	0.05	*
WBT	1			1600	6		6	0.05		18		18	0.05	
WBR	1			1600	70		70	0.05		225	165	60	0.05	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.85					0.85

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	3. Adolfo Rd/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	445		445	0.14	*	583		583	0.18	*
NBT	3	*		4800	719		961	0.20		1431		1647	0.34	
NBR	0	*		0	242		0	0.00		216		0	0.00	
SBL	1			1600	84		84	0.05		59		59	0.05	
SBT	3			4800	1591		1591	0.33	*	1021		1021	0.21	*
SBR	1			1600	144		144	0.09		102		102	0.06	
EBL	2			3200	61		61	0.05		166		166	0.05	
EBT	1			1600	233		233	0.15	*	188		188	0.12	*
EBR	2			3200	718	455	263	0.08		630	291	339	0.11	
WBL	2			3200	269		269	0.08	*	352		352	0.11	*
WBT	2	*		3200	119		148	0.05		225		307	0.10	
WBR	0	*		0	29		0	0.00		82		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.80					0.72

Notes on analysis:	EBR volume reduced for RTOR (max reduction = NBL movement)
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	4. Santa Rosa Rd/Verdugo Way
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	*
NBT	4			6400	1388		1388	0.22		1989		1989	0.31	
NBR	1			1600	737	202	535	0.33		372		372	0.23	
SBL	2			3200	215		215	0.07		101		101	0.05	
SBT	3			4800	2544		2544	0.53	*	1945		1945	0.41	*
SBR	0			0	0		0	0.00		0		0	0.00	
EBL	0			0	0		0	0.00		0		0	0.00	
EBT	0			0	0		0	0.00	*	0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	2			3200	403		403	0.13	*	725		725	0.23	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	1			1600	100		100	0.06		152		152	0.10	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.76					0.73

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	NB RT overlap arrow w/WB LT

Intersection:	5. Santa Rosa Rd/U.S. 101 NB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	*
NBT	3	*		4800	1475		1475	0.31		1725		1788	0.37	
NBR	0	*		0	144	144	0	0.00		240	177	0	0.00	
SBL	0			0	0		0	0.00		0		0	0.00	
SBT	3			4800	1903		1903	0.40	*	1810		1810	0.38	*
SBR	2			3200	1136	1136	0	0.00		817	817	0	0.00	
EBL	0			0	0		0	0.00		0		0	0.00	
EBT	0			0	0		0	0.00	*	0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	1			1600	383		383	0.24	*	392		392	0.25	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	2			3200	613		613	0.19		653		653	0.20	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.74					0.72

Notes on analysis:	**NB RT lane (on-ramp) is 200' (8 vehicle lengths) downstream from limit line. (8 veh/cycle)*(3600 sec/hr)/(55 sec cycle)= 523 vph**
Notes on lane configuration:	**can be served w/o impeding NB RT. NBT #3 >523 causes additional delay.**
Notes on signal operation:	**A.M.: NB T #3 = 493 vph, no additional delay P.M.: NB T #3 = 586 vhp, additional delay**

Intersection:	6. Santa Rosa Rd/U.S. 101 SB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	
NBT	3	*		4800	1154		1154	0.24		1329		1329	0.28	*
NBR	0	*		0	2	2	0	0.00		2	2	0	0.00	
SBL	1			1600	21		21	0.05		25		25	0.05	*
SBT	2			3200	1104		1104	0.35	*	925		925	0.29	
SBR	1			1600	1000	1000	0	0.00		816	816	0	0.00	
EBL	0	*		0	999		0	0.00		1132		0	0.00	
EBT	2	*		3200	4		1003	0.31	*	4		1136	0.36	*
EBR	1			1600	211		211	0.13		211		211	0.13	
WBL	1			1600	5		5	0.05	*	4		4	0.05	*
WBT	1	*		1600	0		6	0.05		0		19	0.05	
WBR	0	*		0	6		0	0.00		19		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.81					0.83

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	7. Pancho Road& Pleasant Valley Road
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout Conditions

					AM Peak Hour					PM Peak Hour				
Movement	Lanes	Shared Movement	Split Phase	Capacity	Vol	Reduction (RTOR)	Adjusted Volume	v/c	Critical Movement	Vol	Reduction (RTOR)	Adjusted Volume	v/c	Critical Movement
NBL	0	*		0	119		0	0.00		467		0	0.00	
NBT	2	*		3200	3		122	0.05		4		471	0.15	
NBR	1			1600	105		105	0.07	*	352		352	0.22	*
SBL	1			1600	49		49	0.05	*	27		27	0.05	*
SBT	1	*		1600	4		50	0.05		4		23	0.05	
SBR	0	*		0	46		0	0.00		19		0	0.00	
EBL	1			1600	17		17	0.05		34		34	0.05	
EBT	2			3200	922		922	0.29	*	871		871	0.27	*
EBR	1			1600	163		163	0.10		59		59	0.05	
WBL	2			3200	386		386	0.12	*	83		83	0.05	*
WBT	2	*		3200	819		835	0.26		812		844	0.26	
WBR	0	*		0	16		0	0.00		32		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.62					0.69

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

HCS7 Two-Way Stop-Control Report

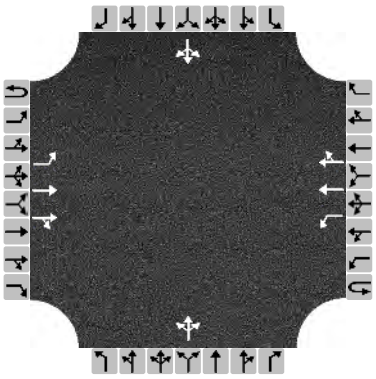
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	BO
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume, V (veh/h)		35	415	70		106	320	2		28	2	37		2	13	30
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		35				106					67				45	
Capacity, c (veh/h)		1228				1067					327				396	
v/c Ratio		0.03				0.10					0.20				0.11	
95% Queue Length, Q_{95} (veh)		0.1				0.3					0.8				0.4	
Control Delay (s/veh)		8.0				8.7					18.8				15.3	
Level of Service, LOS		A				A					C				C	
Approach Delay (s/veh)	0.5				2.2				18.8				15.3			
Approach LOS									C				C			

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HCS7 Two-Way Stop-Control Report

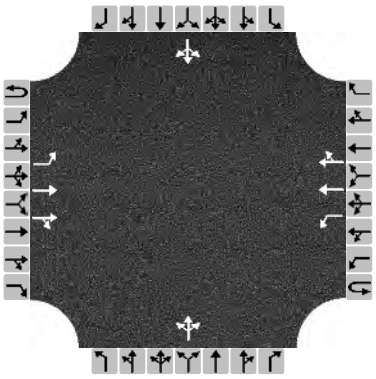
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	BO
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume, V (veh/h)		103	328	80		44	465	5		70	2	71		25	26	72
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		103				44					143				123	
Capacity, c (veh/h)		1081				1140					272				315	
v/c Ratio		0.10				0.04					0.53				0.39	
95% Queue Length, Q_{95} (veh)		0.3				0.1					3.2				1.9	
Control Delay (s/veh)		8.7				8.3					32.7				23.7	
Level of Service, LOS		A				A					D				C	
Approach Delay (s/veh)	1.7				0.7				32.7				23.7			
Approach LOS									D				C			

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HCS7 Two-Way Stop-Control Report

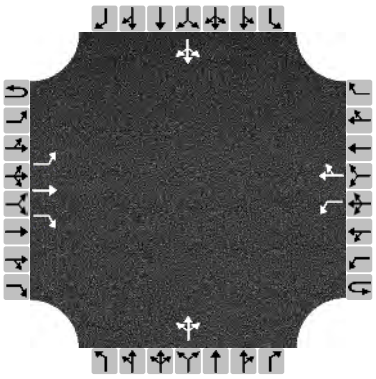
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	BO
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume, V (veh/h)		87	466	90		45	105	2		90	25	2		26	21	63
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		87				45					117				110	
Capacity, c (veh/h)		1476				1009					228				407	
v/c Ratio		0.06				0.04					0.51				0.27	
95% Queue Length, Q_{95} (veh)		0.2				0.1					3.0				1.1	
Control Delay (s/veh)		7.6				8.7					37.2				17.1	
Level of Service, LOS		A				A					E				C	
Approach Delay (s/veh)	1.0				2.6				37.2				17.1			
Approach LOS									E				C			

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HCS7 Two-Way Stop-Control Report

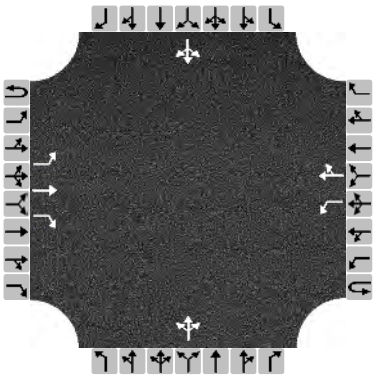
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	4/2/2018
Analysis Year	BO
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume, V (veh/h)		64	92	74		2	455	39		92	29	2		10	17	71
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		64				2					123				98	
Capacity, c (veh/h)		1063				1404					282				466	
v/c Ratio		0.06				0.00					0.44				0.21	
95% Queue Length, Q_{95} (veh)		0.2				0.0					2.3				0.8	
Control Delay (s/veh)		8.6				7.6					27.6				14.8	
Level of Service, LOS		A				A					D				B	
Approach Delay (s/veh)	2.4				0.0				27.6				14.8			
Approach LOS									D				B			

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Buildout + Project AM and PM Peak Hour

Intersection:	1. Adolfo Rd/Mission Oaks Blvd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	150		150	0.05		41		41	0.05	
NBT	2			3200	151		151	0.05		370		370	0.12	*
NBR	1			1600	248		248	0.16	*	176		176	0.11	
SBL	2			3200	302		302	0.09	*	117		117	0.05	*
SBT	2			3200	217		217	0.07		265		265	0.08	
SBR	1			1600	223		223	0.14		114		114	0.07	
EBL	1			1600	154		154	0.10		214		214	0.13	*
EBT	2			3200	536		536	0.17	*	550		550	0.17	
EBR	1			1600	165		165	0.10		47		47	0.05	
WBL	1			1600	227		227	0.14	*	120		120	0.08	
WBT	2	*		3200	283		401	0.13		406		673	0.21	*
WBR	0	*		0	118		0	0.00		267		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.66					0.61

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	2. Los Pueblos Dr/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	1			1600	21		21	0.05	*	64		64	0.05	
NBT	2	*		3200	766		817	0.26		1660		1749	0.55	*
NBR	0	*		0	51		0	0.00		89		0	0.00	
SBL	1			1600	205		205	0.13		165		165	0.10	*
SBT	2	*		3200	1791		1802	0.56	*	1012		1026	0.32	
SBR	0	*		0	11		0	0.00		14		0	0.00	
EBL	1			1600	10		10	0.05		14		14	0.05	
EBT	1			1600	22		130	0.08	*	15		57	0.05	*
EBR	0	*		0	108		0	0.00		42		0	0.00	
WBL	1			1600	65		65	0.05	*	87		87	0.05	*
WBT	1			1600	6		6	0.05		18		18	0.05	
WBR	1			1600	70		70	0.05		225	165	60	0.05	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.84					0.85

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	3. Adolfo Rd/Santa Rosa Rd
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	2			3200	455		455	0.14	*	584		584	0.18	*
NBT	3	*		4800	726		967	0.20		1432		1648	0.34	
NBR	0	*		0	241		0	0.00		216		0	0.00	
SBL	1			1600	84		84	0.05		59		59	0.05	
SBT	3			4800	1584		1584	0.33	*	1022		1022	0.21	*
SBR	1			1600	144		144	0.09		102		102	0.06	
EBL	2			3200	61		61	0.05		166		166	0.05	
EBT	1			1600	222		222	0.14	*	189		189	0.12	*
EBR	2			3200	707	455	252	0.08		630	292	338	0.11	
WBL	2			3200	269		269	0.08	*	352		352	0.11	*
WBT	2	*		3200	130		159	0.05		226		308	0.10	
WBR	0	*		0	29		0	0.00		82		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.80					0.72

Notes on analysis:	EBR volume reduced for RTOR (max reduction = NBL movement)
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	4. Santa Rosa Rd/Verdugo Way
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	*
NBT	4			6400	1388		1388	0.22		1989		1989	0.31	
NBR	1			1600	637	202	435	0.27		383		383	0.24	
SBL	2			3200	196		196	0.06		103		103	0.05	
SBT	3			4800	2544		2544	0.53	*	1945		1945	0.41	*
SBR	0			0	0		0	0.00		0		0	0.00	
EBL	0			0	0		0	0.00		0		0	0.00	
EBT	0			0	0		0	0.00	*	0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	2			3200	494		494	0.15	*	728		728	0.23	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	1			1600	116		116	0.07		153		153	0.10	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.78					0.73

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	NB RT overlap arrow w/WB LT

Intersection:	5. Santa Rosa Rd/U.S. 101 NB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	*
NBT	3	*		4800	1416		1416	0.30		1731		1794	0.37	
NBR	0	*		0	144	144	0	0.00		240	177	0	0.00	
SBL	0			0	0		0	0.00		0		0	0.00	
SBT	3			4800	1953		1953	0.41	*	1812		1812	0.38	*
SBR	2			3200	1177	1177	0	0.00		820	820	0	0.00	
EBL	0			0	0		0	0.00		0		0	0.00	
EBT	0			0	0		0	0.00	*	0		0	0.00	*
EBR	0			0	0		0	0.00		0		0	0.00	
WBL	1			1600	383		383	0.24	*	392		392	0.25	*
WBT	0			0	0		0	0.00		0		0	0.00	
WBR	2			3200	537		537	0.17		658		658	0.21	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.75					0.72

Notes on analysis:	**NB RT lane (on-ramp) is 200' (8 vehicle lengths) downstream from limit line. (8 veh/cycle)*(3600 sec/hr)/(55 sec cycle)= 523 vph**
Notes on lane configuration:	**can be served w/o impeding NB RT. NBT #3 >523 causes additional delay.**
Notes on signal operation:	**A.M.: NB T #3 = 493 vph, no additional delay P.M.: NB T #3 = 586 vhp, additional delay**

Intersection:	6. Santa Rosa Rd/U.S. 101 SB
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0			0	0		0	0.00	*	0		0	0.00	
NBT	3	*		4800	1140		1140	0.24		1330		1330	0.28	*
NBR	0	*		0	2	2	0	0.00		2	2	0	0.00	
SBL	1			1600	21		21	0.05		25		25	0.05	*
SBT	2			3200	1116		1116	0.35	*	925		925	0.29	
SBR	1			1600	1038	1038	0	0.00		817	817	0	0.00	
EBL	0	*		0	953		0	0.00		1137		0	0.00	
EBT	2	*		3200	4		957	0.30	*	4		1141	0.36	*
EBR	1			1600	211		211	0.13		211		211	0.13	
WBL	1			1600	5		5	0.05	*	4		4	0.05	*
WBT	1	*		1600	0		6	0.05		0		19	0.05	
WBR	0	*		0	6		0	0.00		19		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.80					0.83

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

Intersection:	7. Pancho Road& Pleasant Valley Road
Analyst:	Dennis Lammers
Year of Base Count:	2018
Scenario:	Buidout + Project Conditions

Movement	Lanes	Shared Movement	Split Phase	Capacity	AM Peak Hour Vol	AM Peak Hour Reduction (RTOR)	AM Peak Hour Adjusted Volume	AM Peak Hour v/c	AM Peak Hour Critical Movement	PM Peak Hour Vol	PM Peak Hour Reduction (RTOR)	PM Peak Hour Adjusted Volume	PM Peak Hour v/c	PM Peak Hour Critical Movement
NBL	0	*		0	119		0	0.00		467		0	0.00	
NBT	2	*		3200	3		122	0.05		4		471	0.15	
NBR	1			1600	99		99	0.06	*	350		350	0.22	*
SBL	1			1600	49		49	0.05	*	27		27	0.05	*
SBT	1	*		1600	4		50	0.05		4		23	0.05	
SBR	0	*		0	46		0	0.00		19		0	0.00	
EBL	1			1600	17		17	0.05		34		34	0.05	
EBT	2			3200	914		914	0.29	*	867		867	0.27	*
EBR	1			1600	163		163	0.10		59		59	0.05	
WBL	2			3200	384		384	0.12	*	77		77	0.05	*
WBT	2	*		3200	817		833	0.26		805		837	0.26	
WBR	0	*		0	16		0	0.00		32		0	0.00	
Right Turn Adjustment:														
Clearance Interval:									0.10					0.10
TOTAL CAPACITY UTILIZATION:									0.62					0.69

Notes on analysis:	
Notes on lane configuration:	
Notes on signal operation:	

HCS7 Two-Way Stop-Control Report

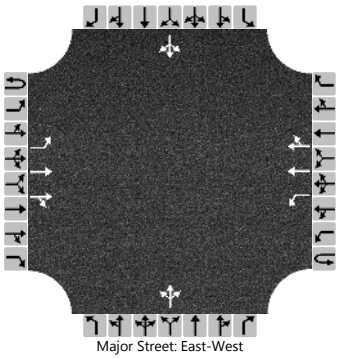
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	BOPR
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	35	415	58	0	106	320	2		38	2	37		2	13	30
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		35				106					77				45	
Capacity, c (veh/h)		1227				1078					303				400	
v/c Ratio		0.03				0.10					0.25				0.11	
95% Queue Length, Q_{95} (veh)		0.1				0.3					1.0				0.4	
Control Delay (s/veh)		8.0				8.7					20.9				15.1	
Level of Service (LOS)		A				A					C				C	
Approach Delay (s/veh)	0.6				2.2				20.9				15.1			
Approach LOS									C				C			

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HCS7 Two-Way Stop-Control Report

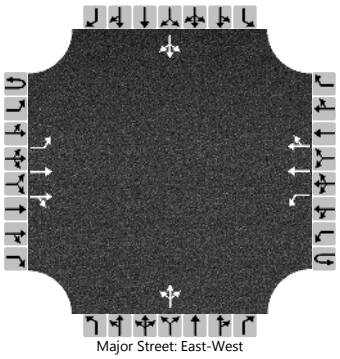
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	BOPR
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	ADOLFO RD/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	ADOLFO RD
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	103	328	74	0	44	465	5		71	2	71		25	26	72
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		103				44					144				123	
Capacity, c (veh/h)		1081				1146					273				316	
v/c Ratio		0.10				0.04					0.53				0.39	
95% Queue Length, Q_{95} (veh)		0.3				0.1					3.2				1.9	
Control Delay (s/veh)		8.7				8.3					32.7				23.6	
Level of Service (LOS)		A				A					D				C	
Approach Delay (s/veh)	1.8				0.7				32.7				23.6			
Approach LOS									D				C			

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HCS7 Two-Way Stop-Control Report

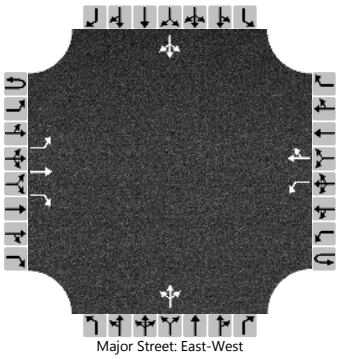
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	BOPR
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume (veh/h)		86	399	90		45	166	8		139	30	2		20	16	63
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No														
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		86				45					171				99	
Capacity, c (veh/h)		1395				1068					229				432	
v/c Ratio		0.06				0.04					0.75				0.23	
95% Queue Length, Q_{95} (veh)		0.2				0.1					7.1				0.9	
Control Delay (s/veh)		7.8				8.5					62.8				15.8	
Level of Service (LOS)		A				A					F				C	
Approach Delay (s/veh)		1.2				1.8				62.8				15.8		
Approach LOS										F				C		

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HCS7 Two-Way Stop-Control Report

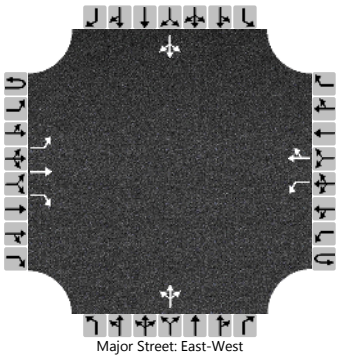
General Information

Analyst	DJL
Agency/Co.	STANTEC
Date Performed	12/7/2018
Analysis Year	BOPR
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	CAMINO RUIZ RESIDENTIAL

Site Information

Intersection	VERDUGO WAY/CAMINO RUIZ
Jurisdiction	CAMARILLO
East/West Street	VERDUGO WAY
North/South Street	CAMINO RUIZ
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	0		0	1	0
Configuration		L	T	R		L		TR			LTR				LTR	
Volume (veh/h)		60	102	84		2	459	40		95	29	2		11	18	71
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No														
Median Type | Storage		Undivided														

Critical and Follow-up Headways

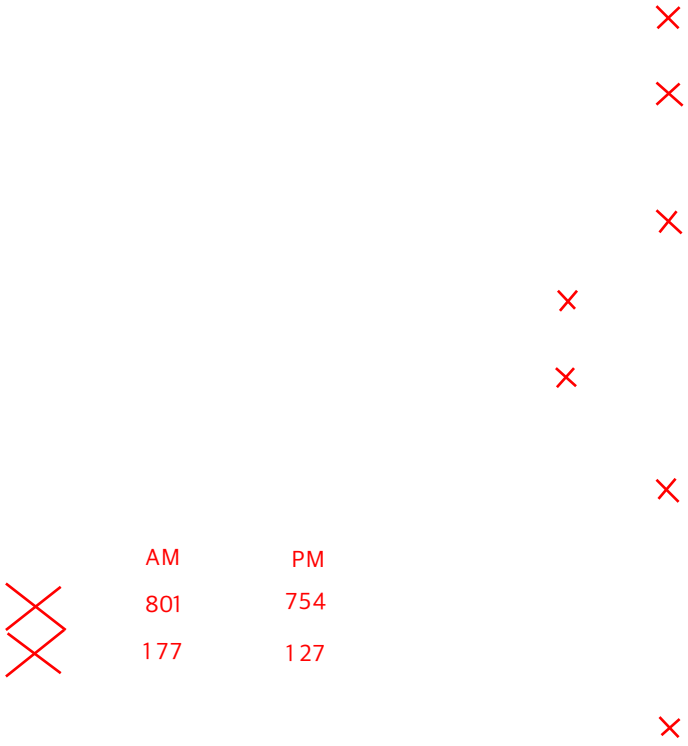
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		60				2					126				100	
Capacity, c (veh/h)		1059				1381					278				455	
v/c Ratio		0.06				0.00					0.45				0.22	
95% Queue Length, Q_{95} (veh)		0.2				0.0					2.4				0.8	
Control Delay (s/veh)		8.6				7.6					28.6				15.1	
Level of Service (LOS)		A				A					D				C	
Approach Delay (s/veh)		2.1				0.0				28.6				15.1		
Approach LOS										D				C		

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Buildout Traffic Signal Warrant 3 – Peak Hour


AM
PM
801
754
177
127


177
127
754
801