Appendix L2 Supplemental Traffic Impact Analysis

Appendices

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2401 East Katella Avenue
Suite 425
Anaheim, CA 92806
657.284.2620
www.dksassociates.com

July 15, 2016

Ms. Socheata Chhouk
Associate Civil Engineer
Public Works Department
100 Civic Center Drive
Newport Beach, CA 92660

Re: Supplemental Traffic Analysis for the Orange County Museum of Art Redevelopment Project located at 850 San Clemente Drive, Newport Beach

Dear Ms. Chhouk:

DKS Associates is pleased to provide this supplemental traffic analysis for the proposed Orange County Museum of Art (OCMA) redevelopment project located at 850 San Clemente Drive in the City of Newport Beach. The project proposes a 25-story structure which will consist of 100 residential units. DKS previously completed a traffic impact analysis for the OCMA project on April 29, 2016. It is our understanding that the City of Newport Beach staff has requested an analysis for an additional five (5) intersections located within the original study area.

This letter summarizes the analysis of the five (5) additional intersections listed below for potential traffic impacts and provides recommendations to mitigate those impacts, if necessary.

1) San Joaquin Hills Road/ Santa Cruz Drive
2) San Joaquin Hills Road/ Santa Rosa Drive
3) East Coast Highway/Goldenrod Avenue
4) East Coast Highway/ Newport Center Drive (Qualitative Analysis Only)
5) East Coast Highway/Avocado Avenue (Qualitative Analysis Only)

Existing AM peak period and PM peak period traffic turning movement counts were obtained from the City of Newport Beach (See Appendix A). These counts were adjusted by applying a 1% growth rate (on arterials only) per year based on the rates obtained from the City. The counts were adjusted by adding growth rate until the year 2016. In addition, the City provided DKS with the existing lane geometries as background for the intersection analysis.

Similar to the traffic analysis dated April 29, 2016, this analysis was conducted for the following scenarios:

- Existing
- Existing + Project
- Future Year + Approved Projects + Growth (TPO Analysis)
- Future Year + Approved Projects + Growth + Project (TPO Analysis)
- Future Year + Approved Projects + Cumulative Projects + Growth (CEQA Analysis)
- Future Year + Approved Projects + Cumulative Projects + Growth + Project (CEQA Analysis)

Figure 1 illustrates the project site location and study intersections (Attached).

It should be noted that not all existing intersections around the Fashion Island/Newport Center vicinity (project site location) were analyzed within this traffic analysis or the original traffic impact analysis dated April 29, 2016. A traffic analysis prepared for the nearby North Newport Center San Joaquin Plaza project concluded that the traffic signal operations around Newport Center Drive ring road operate at LOS A under existing and future conditions (Stantec Consulting Services, Inc., 2012). Therefore, City of Newport Beach staff is not requiring any additional intersection analysis beyond the scope presented in this letter.

Intersection Qualitative Analysis

This letter includes a qualitative analysis of the intersections of East Coast Highway/Newport Center Drive and East Coast Highway/Avocado Avenue. Based on the project's City approved trip distribution patterns, there is no project traffic traveling through these intersections. Therefore, the project would not cause any project-related impacts at these intersections.

In addition, the City's General Plan shows that these two (2) intersections are operating at acceptable levels of service during existing and future conditions. Therefore, no quantitative analysis is deemed necessary at these intersections. The City's General Plan Intersection Operations Analysis Summary is provided in Appendix B.

Study Method and Procedures

Similar to the traffic analysis dated April 29, 2016, the analysis of signalized intersections was performed using the Intersection Capacity Utilization (ICU) methodology. The City of Newport Beach requires the analysis of all study intersections based on ICU methodology as part of the TPO.

Based on the review of the TPO and General Plan for the City of Newport Beach, the acceptable level of service for all study intersections is LOS D with the exception of the following:

- LOS E at any intersection in the John Wayne Airport Area shared with Irvine
- LOS E at the intersection of Marguerite Avenue at East Coast Highway
- LOS E at the intersection of Goldenrod Avenue at East Coast Highway
- LOS E at the intersection of Dover Drive at West Coast Highway

Therefore, any intersections, other than the four (4) exceptions presented above, operating at LOS E or LOS F will be considered deficient.

Existing (2016)

The existing level of service has been evaluated at the study intersections based on the ICU methodology. The LOS summary is shown in Table A. As shown, all intersections operate at LOS C or better. LOS calculation sheets are provided in Appendix C.

Table A: Existing (2016) Intersection Level of Service Summary

Intersection		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1.	Santa Cruz Drive/San Joaquin Hills Road	.323	A	.355	A
2.	Santa Rosa Drive/San Joaquin Hills Road	.316	A	.431	A
3.	Goldenrod Avenue/East Coast Highway	.713	C	.754	C

Project Traffic

Similar to the analysis dated April 29, 2016, the proposed development is projected to generate approximately 310 net new trip-ends per day, with 30 (3 inbound, 27 outbound) net new trips during the AM peak hour and 33 (23 inbound, 10 outbound) net new trips during the PM peak hour. Table B summarizes the trip generation rates and resulting net new vehicle trips. The City approved trip distribution patterns were used for this analysis.

Table B: Project Trip Generation Summary

Land Use	ITE Code	Size		Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Rates										
High-Rise Condominium	232	per	DU	4.18	0.06	0.28	0.34	0.24	0.14	0.38
Trip Generation										
Trips										
Condominiums (Proposed)		100	DU	418	6	28	34	24	14	38
Museum (Existing)		24	TSF	(108)	(3)	(1)	(4)	(1)	(4)	(5)
Net New Total Trips				**310**	**3**	**27**	**30**	**23**	**10**	**33**

ITE – Institute of Transportation Engineers

Existing (2016) Plus Project

The Existing Plus Project level of service has been evaluated at study intersections based on the ICU methodology. The LOS summary for intersections is shown in Table C. As shown in Table C, all intersections operate at LOS C or better. Intersection LOS calculation sheets are provided in the Appendix D.

Table C: Existing (2016) Plus Project Intersection Level of Service Summary

Intersections		No Project				Plus Project				Difference		Project Impact
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	V/C	
1.	Santa Cruz Drive/San Joaquin Hills Road	.323	A	.355	A	.324	A	.360	A	0.001	0.005	No
2.	Santa Rosa Drive/San Joaquin Hills Road	.316	A	.431	A	.317	A	.432	B	0.001	0.001	No
3.	Goldenrod Avenue/East Coast Highway	.713	C	.754	C	.713	C	.754	C	0.000	0.000	No

Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the study intersections. Therefore, no mitigation measures are required on study intersections as part of the project.

Future (2021) Plus Approved Projects Plus Growth (No Project) – TPO

Future buildout traffic forecasts were developed in order to analyze the project traffic impacts one year after project completion. A 1% annual growth was added to the existing vehicular traffic volumes (on arterials only) for a period of 5 years to determine the future 2021 traffic volumes at the study intersections based on the growth rate obtained from the City. In addition, the City of Newport Beach provided a list of approved projects and trips on the study intersections to be used for the future 2021 analysis. The approved projects consist of developments which are approved by the City, but have not been constructed. An approved project is a project that has been approved pursuant to the TPO, and requires no further discretionary approval from the City. Trips generated from the approved projects were distributed to the roadway network by the city. Approved project volumes that were provided by the City of Newport Beach are included in Appendix E.

The Future (2021) Plus Approved Project Plus Growth (No Project) level of service has been evaluated at study intersections based on the ICU methodology. The LOS summary for intersections is shown in Table D. As shown in Table D, all intersections operate at LOS C or better. Intersection LOS calculation sheets are provided in the Appendix F.

Table D: Future (2021) Plus Approved Projects Plus Growth (No Project) Intersection-Level of Service Summary (TPO Analysis)

Intersection		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1.	Santa Cruz Drive/San Joaquin Hills Road	.343	A	.372	A
2.	Santa Rosa Drive/San Joaquin Hills Road	.347	A	.472	A
3.	Goldenrod Avenue/East Coast Highway	.748	C	.791	C

Future (2021) Plus Approved Plus Growth Plus Project – TPO Analysis

As per the TPO analysis, the study intersections are required to be reviewed based on the one percent methodology in order to determine if they need to be analyzed further or not. If the proposed project trips at any approach are greater than the 1% of the no project volume (Future 2021 Plus Approved Plus Growth No Project) at that approach, the intersection qualifies for further analysis for level of service (ICU).

Based on the comparison between the Future (2021) Plus Approved Plus Growth No Project and the project trip assignment, the following two (2) intersections do satisfy the one percent threshold and would require further analysis for this scenario. The threshold calculation worksheets are provided in Appendix G.

1) Santa Cruz Drive/San Joaquin Hills Road
2) Santa Rosa Drive/San Joaquin Hills Road

The Future (2021) Plus Approved Plus Growth Plus Project level of service has been evaluated at study intersections based on the ICU methodology. The LOS summary for intersections is shown in Table E. As shown in Table E, all intersections operate at LOS A. Intersection LOS calculation sheets are provided in the Appendix H.

Table E: Future (2021) Plus Approved Projects Plus Growth Plus Project Intersection - Level of Service Summary (TPO Analysis)

Intersections		No Project				Plus Project				Difference		Project Impact
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	V/C	
1.	Santa Cruz Drive/San Joaquin Hills Road	.343	A	.372	A	.344	A	.380	A	0.001	0.008	No
2.	Santa Rosa Drive/San Joaquin Hills Road	.347	A	.472	A	.347	A	.473	A	0.000	0.001	No

Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the study intersections. Therefore, no mitigation measures are required on the study intersections as part of the project.

Future (2021) Plus Approved Projects Plus Cumulative Projects Plus Growth (No Project) – CEQA Analysis

Future buildout traffic forecasts were developed in order to analyze the project traffic impacts one year after project completion. A 1% annual growth was added to the existing vehicular traffic volumes (on arterials only) for a period of 5 years to determine the future 2021 traffic volumes at the study intersections based on the growth rate obtained from the City. In addition to the list of approved projects, the City of Newport Beach provided a list of cumulative project locations and traffic study documents which needed to be included for the future 2021 analysis. The cumulative projects consist of developments which are not yet approved by the City, but are expected to be completed or almost be completed around the completion of the proposed project. Trips generated from the approved and cumulative projects were distributed to the roadway network.

The Future (2021) Plus Approved Plus Cumulative Plus Growth (No Project) level of service has been evaluated at study intersections based on the ICU methodology. The LOS summary for intersections is shown in Table F. As shown in Table F, all intersections operate at acceptable levels of service. It should be noted that the acceptable level of service for the intersection of Goldenrod Avenue at East Coast Highway is LOS E. Intersection LOS calculation sheets are provided in the Appendix I.

Table F: Future (2021) Plus Approved Projects Plus Growth (No Project) Intersection-Level of Service Summary (TPO Analysis)

Intersection		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1.	Santa Cruz Drive/San Joaquin Hills Road	.343	A	.372	A
2.	Santa Rosa Drive/San Joaquin Hills Road	.347	A	.474	A
3.	Goldenrod Avenue/East Coast Highway	.881	D	.929	E

Future (2021) Plus Approved Plus Cumulative Plus Growth Plus Project – CEQA Analysis

The Future (2021) Plus Approved Plus Cumulative Plus Growth Plus Project level of service has been evaluated at study intersections based on the ICU methodology. The LOS summary for intersections is shown in Table G. As shown in Table G, all intersections operate at acceptable levels of service. Intersection LOS calculation sheets are provided in the Appendix J.

Table G: Future (2021) Plus Approved Projects Plus Cumulative Projects Plus Growth Plus Project Intersection Level of Service Summary (CEQA Analysis)

Intersections		No Project				Plus Project				Difference		Project Impact
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	V/C	
1.	Santa Cruz Drive/San Joaquin Hills Road	.343	A	.372	A	.344	A	.380	A	0.001	0.008	No
2.	Santa Rosa Drive/San Joaquin Hills Road	.347	A	.474	A	.347	A	.475	A	0.000	0.001	No
3.	Goldenrod Avenue/East Coast Highway	.881	D	.929	E	.881	D	.930	E	0.000	0.001	No

Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the study intersections. Therefore, no mitigation measures are required on the study intersections as part of the project.

CONCLUSION

Based on the results of the analysis, the proposed project generated trips would not cause significant impact at any of the additional five (5) study intersections. Therefore, no mitigation measures are required at any study intersection as a part of the proposed project.

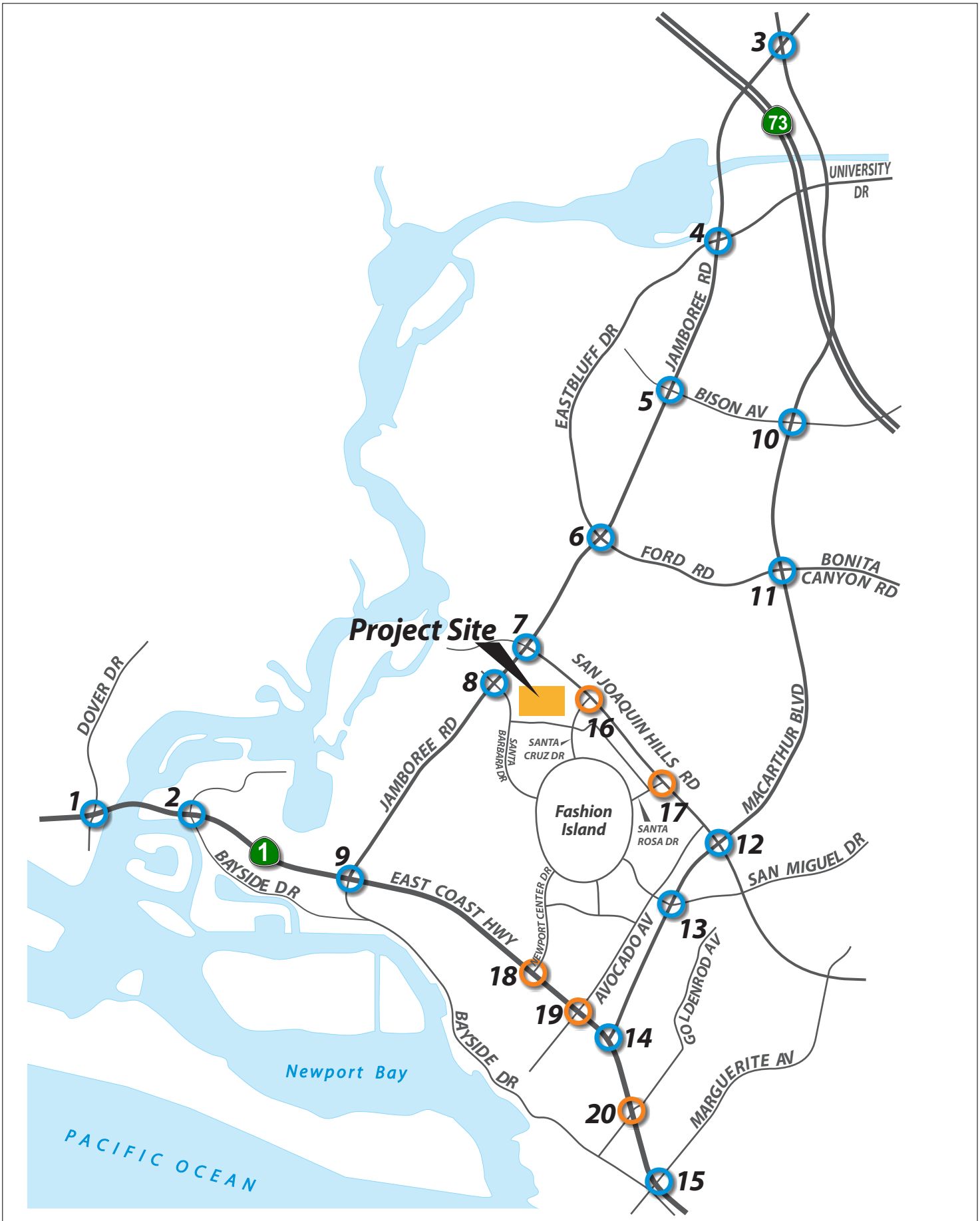
We appreciate the opportunity to provide this traffic analysis for the OCMA Residential Project. Should there be any questions regarding this analysis, please do not hesitate to contact us.

Sincerely,
DKS Associates
A California Corporation

Jeffrey B. Heald, P.E.
Southern California Office Manager

Mario A. Gutierrez, E.I.T.
Project Engineer

Attachment



LEGEND

- Original TIA Study Intersection (Dated April 29, 2016)

- Additional Study Intersection

DKS

No Scale

Figure 1

Project Site and Study Intersections

APPENDIX

APPENDIX A

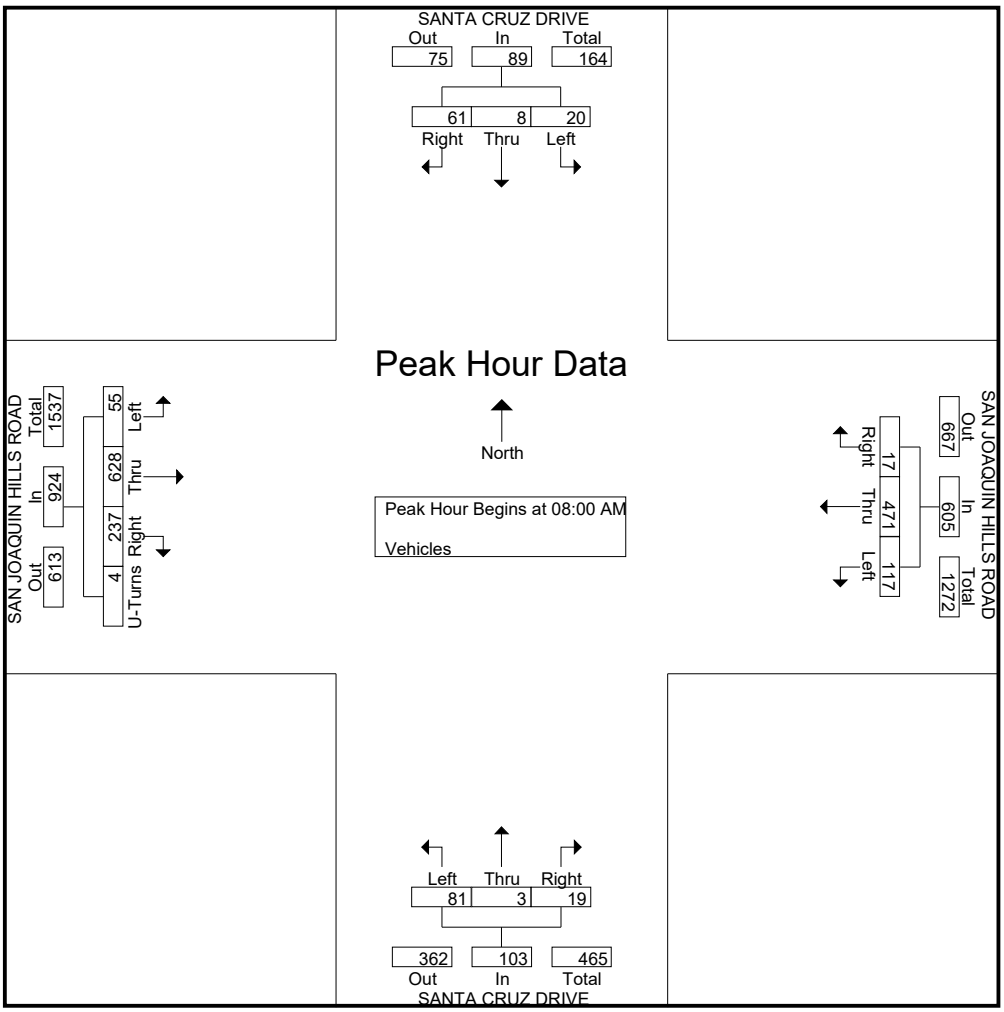
Raw Turning Movement Counts

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: SANTA CRUZ DRIVE
E-W Direction: SAN JOAQUIN HILLS ROAD

File Name : H1404135
Site Code : 00000000
Start Date : 5/15/2014

	SANTA CRUZ DRIVE Southbound				SAN JOAQUIN HILLS ROAD Westbound				SANTA CRUZ DRIVE Northbound				SAN JOAQUIN HILLS ROAD Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 08:00 AM																		
08:00 AM	12	0	**8**	20	**7**	96	**44**	147	3	**1**	21	25	**64**	**169**	12	1	**246**	438
08:15 AM	15	1	4	20	3	120	24	147	**7**	1	19	27	47	148	12	1	208	402
08:30 AM	16	3	4	23	5	**133**	25	**163**	4	0	**24**	**28**	63	164	10	**2**	239	**453**
08:45 AM	**18**	**4**	4	**26**	2	122	24	148	5	1	17	23	63	147	**21**	0	231	428
Total Volume	61	8	20	89	17	471	117	605	19	3	81	103	237	628	55	4	924	1721
% App. Total	68.5	9	22.5		2.8	77.9	19.3		18.4	2.9	78.6		25.6	68	6	0.4		
PHF	.847	.500	.625	.856	.607	.885	.665	.928	.679	.750	.844	.920	.926	.929	.655	.500	.939	.950

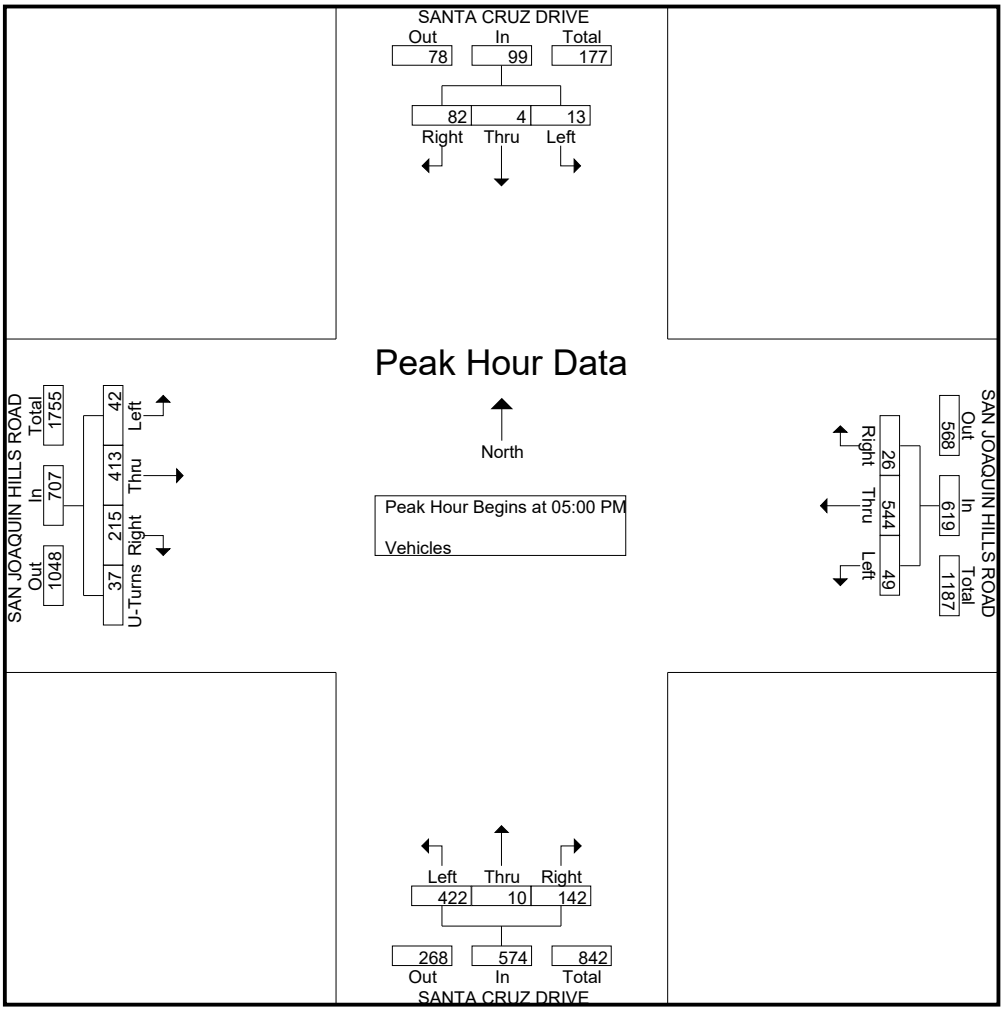


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: SANTA CRUZ DRIVE
E-W Direction: SAN JOAQUIN HILLS ROAD

File Name : H1404135
Site Code : 00000000
Start Date : 5/15/2014

	SANTA CRUZ DRIVE Southbound				SAN JOAQUIN HILLS ROAD Westbound				SANTA CRUZ DRIVE Northbound				SAN JOAQUIN HILLS ROAD Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 05:00 PM																		
05:00 PM	22	**1**	**8**	**31**	**10**	**149**	12	**171**	**49**	**4**	**118**	**171**	48	109	5	**14**	176	**549**
05:15 PM	**26**	1	3	30	4	144	8	156	31	2	115	148	**76**	81	12	11	180	514
05:30 PM	21	1	0	22	6	126	**15**	147	29	2	100	131	37	**115**	8	10	170	470
05:45 PM	13	1	2	16	6	125	14	145	33	2	89	124	54	108	**17**	2	**181**	466
Total Volume	82	4	13	99	26	544	49	619	142	10	422	574	215	413	42	37	707	1999
% App. Total	82.8	4	13.1		4.2	87.9	7.9		24.7	1.7	73.5		30.4	58.4	5.9	5.2		
PHF	.788	1.00	.406	.798	.650	.913	.817	.905	.724	.625	.894	.839	.707	.898	.618	.661	.977	.910

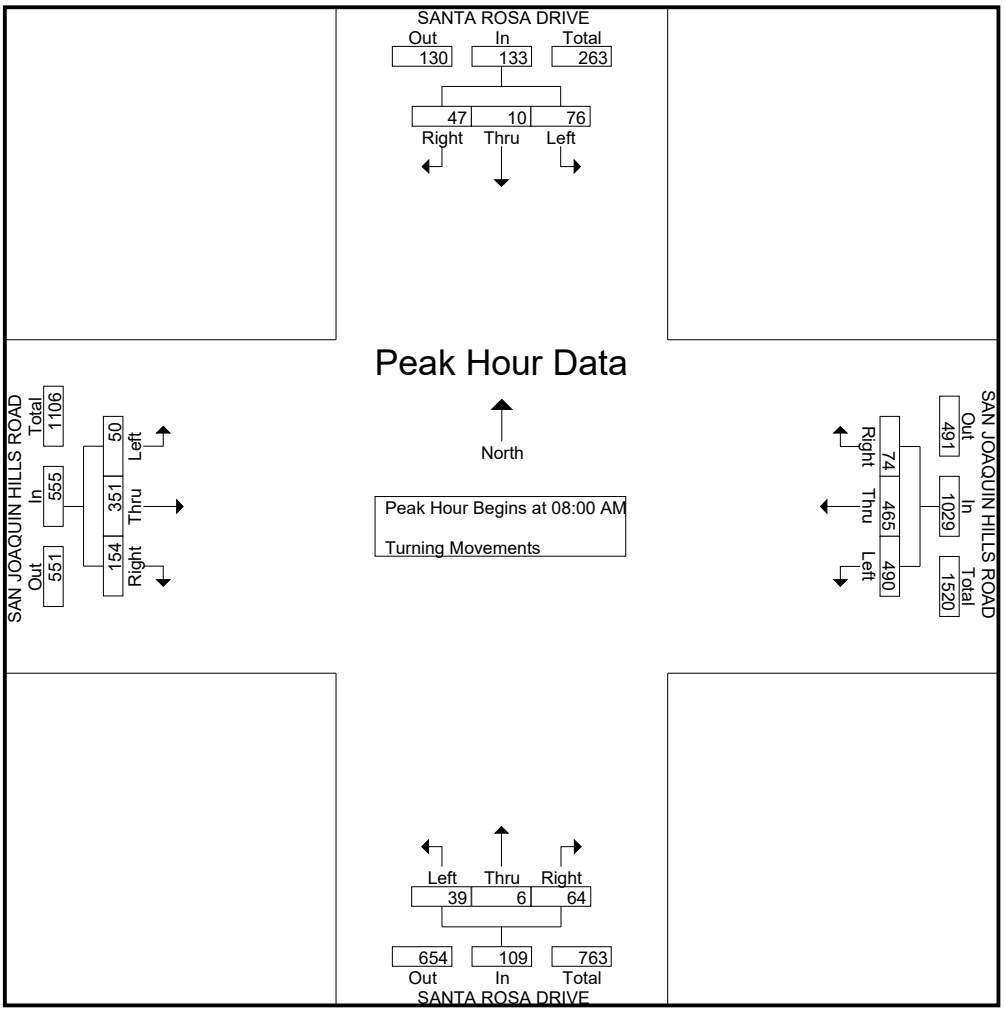


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: SANTA ROSA DRIVE
E-W Direction: SAN JOAQUIN HILLS ROAD

File Name : H1404136
Site Code : 00005060
Start Date : 5/21/2014

	SANTA ROSA DRIVE Southbound				SAN JOAQUIN HILLS ROAD Westbound				SANTA ROSA DRIVE Northbound				SAN JOAQUIN HILLS ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	12	2	19	33	**27**	**137**	132	**296**	16	1	9	26	**52**	**132**	**17**	**201**	**556**
08:15 AM	12	3	19	34	17	108	111	236	11	**3**	10	24	31	74	10	115	409
08:30 AM	9	**4**	16	29	16	114	99	229	16	2	9	27	34	70	8	112	397
08:45 AM	**14**	1	**22**	**37**	14	106	**148**	268	**21**	0	**11**	**32**	37	75	15	127	464
Total Volume	47	10	76	133	74	465	490	1029	64	6	39	109	154	351	50	555	1826
% App. Total	35.3	7.5	57.1		7.2	45.2	47.6		58.7	5.5	35.8		27.7	63.2	9		
PHF	.839	.625	.864	.899	.685	.849	.828	.869	.762	.500	.886	.852	.740	.665	.735	.690	.821

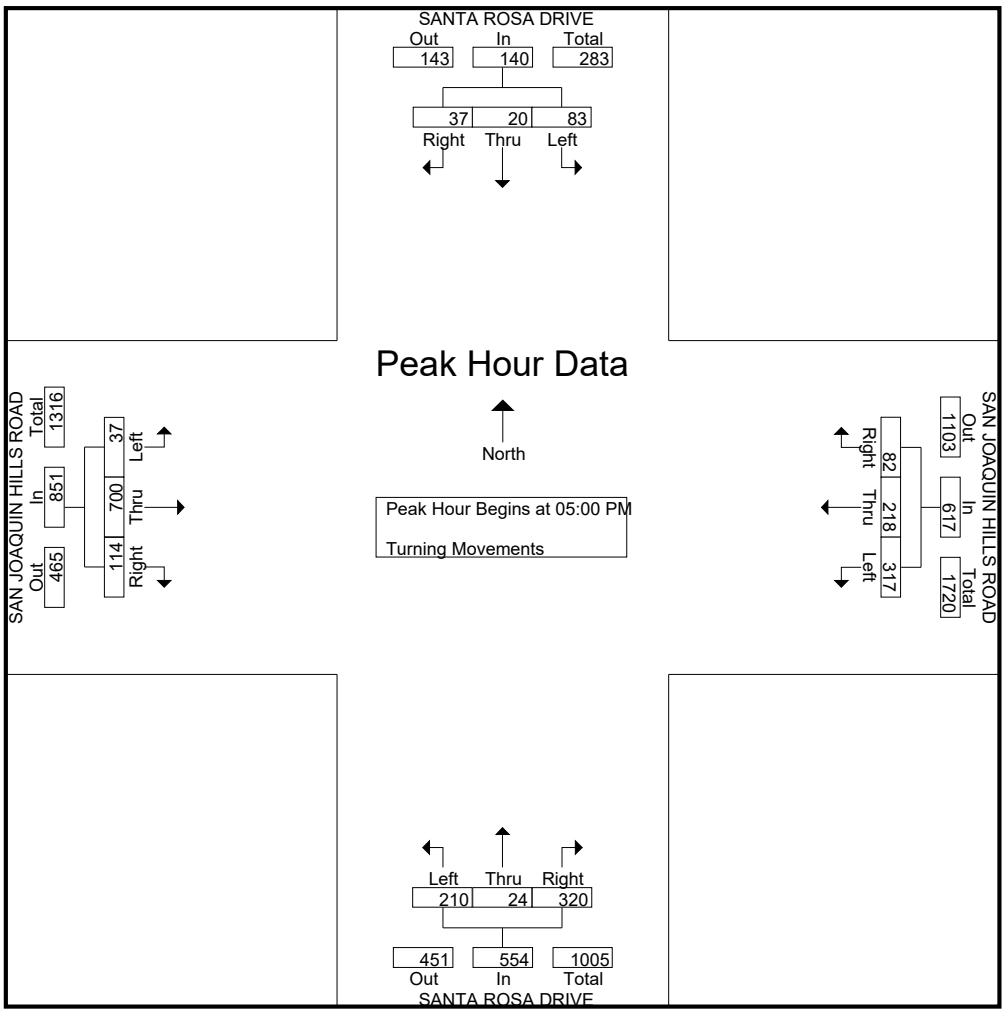


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: SANTA ROSA DRIVE
E-W Direction: SAN JOAQUIN HILLS ROAD

File Name : H1404136
Site Code : 00005060
Start Date : 5/21/2014
Page No : 3

	SANTA ROSA DRIVE Southbound				SAN JOAQUIN HILLS ROAD Westbound				SANTA ROSA DRIVE Northbound				SAN JOAQUIN HILLS ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**11**	6	16	33	**27**	**62**	**87**	**176**	**80**	**9**	45	134	22	134	**11**	167	510
05:15 PM	8	2	**27**	37	21	38	67	126	80	7	**62**	**149**	29	190	10	229	541
05:30 PM	10	**8**	26	**44**	21	57	77	155	80	7	47	134	30	182	5	217	550
05:45 PM	8	4	14	26	13	61	86	160	80	1	56	137	**33**	**194**	11	**238**	**561**
Total Volume	37	20	83	140	82	218	317	617	320	24	210	554	114	700	37	851	2162
% App. Total	26.4	14.3	59.3		13.3	35.3	51.4		57.8	4.3	37.9		13.4	82.3	4.3		
PHF	.841	.625	.769	.795	.759	.879	.911	.876	1.00	.667	.847	.930	.864	.902	.841	.894	.963

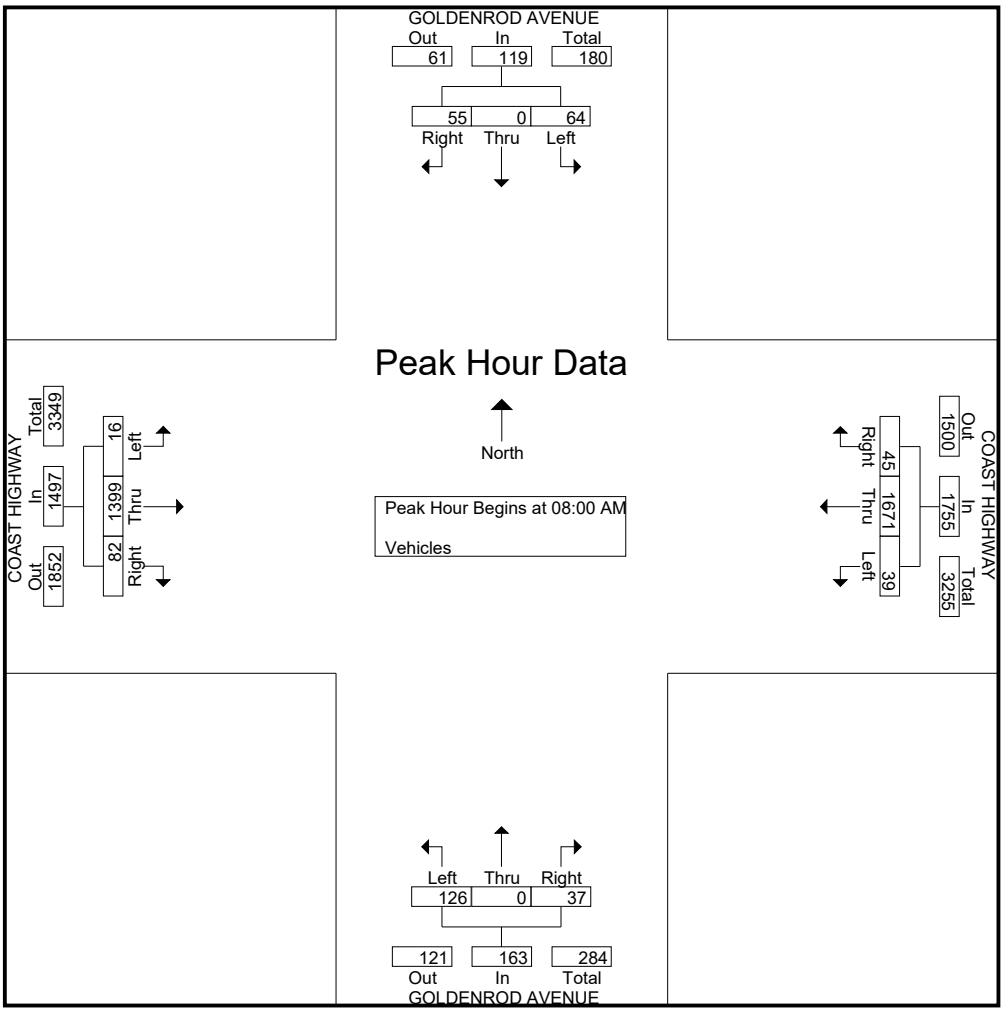


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: GOLDENROD AVENUE
E-W Direction: COAST HIGHWAY

File Name : H1404116
Site Code : 00000000
Start Date : 5/8/2014

	GOLDENROD AVENUE Southbound				COAST HIGHWAY Westbound				GOLDENROD AVENUE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	16	0	22	38	**29**	**451**	7	**487**	7	0	**42**	49	**27**	**376**	5	**408**	**982**
08:15 AM	**19**	0	**24**	**43**	6	404	**14**	424	10	0	21	31	25	346	0	371	869
08:30 AM	11	0	9	20	3	418	9	430	7	0	23	30	21	341	3	365	845
08:45 AM	9	0	9	18	7	398	9	414	**13**	0	40	**53**	9	336	**8**	353	838
Total Volume	55	0	64	119	45	1671	39	1755	37	0	126	163	82	1399	16	1497	3534
% App. Total	46.2	0	53.8		2.6	95.2	2.2		22.7	0	77.3		5.5	93.5	1.1		
PHF	.724	.000	.667	.692	.388	.926	.696	.901	.712	.000	.750	.769	.759	.930	.500	.917	.900

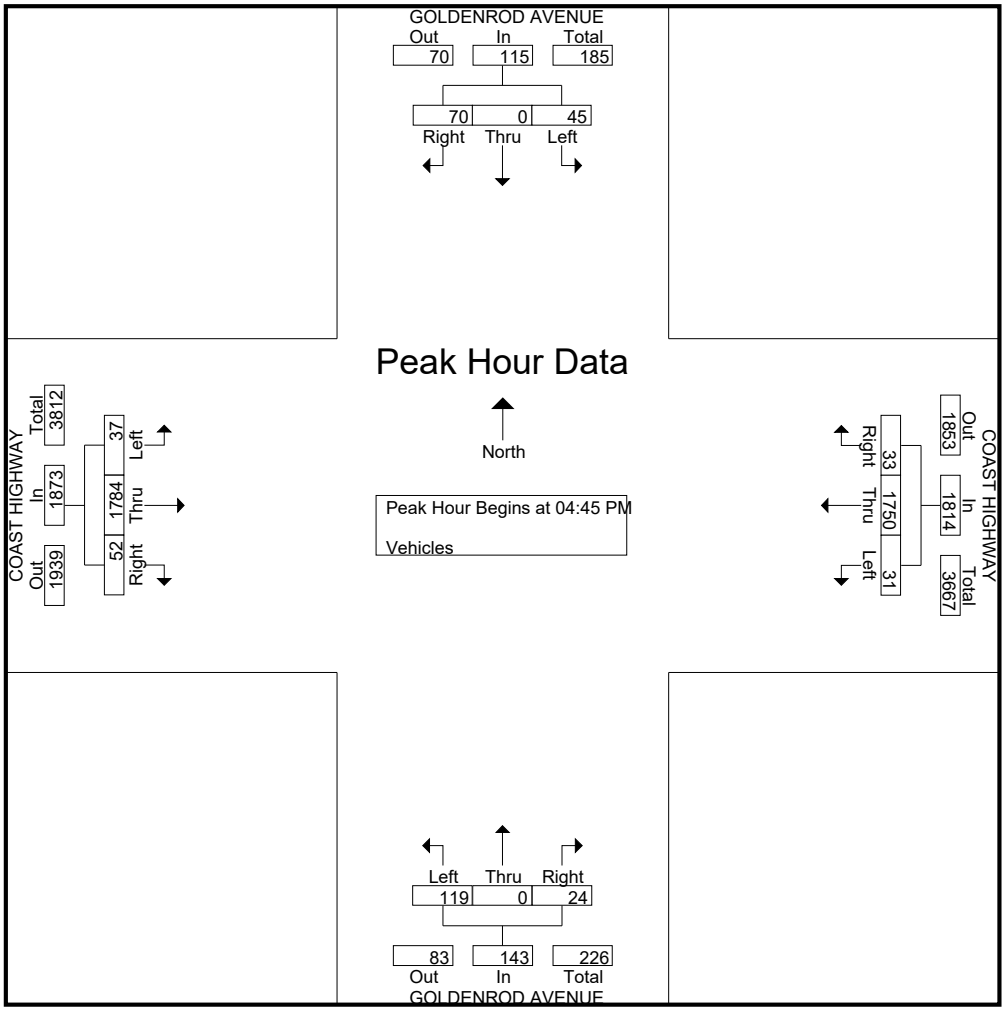


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: GOLDENROD AVENUE
E-W Direction: COAST HIGHWAY

File Name : H1404116
Site Code : 00000000
Start Date : 5/8/2014

	GOLDENROD AVENUE Southbound				COAST HIGHWAY Westbound				GOLDENROD AVENUE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	15	0	5	20	**11**	471	8	490	4	0	**33**	37	14	437	5	456	1003
05:00 PM	**25**	0	9	**34**	8	**495**	7	**510**	**11**	0	32	**43**	11	**453**	7	471	**1058**
05:15 PM	13	0	**18**	31	7	459	5	471	5	0	21	26	**15**	449	**16**	**480**	1008
05:30 PM	17	0	13	30	7	325	**11**	343	4	0	33	37	12	445	9	466	876
Total Volume	70	0	45	115	33	1750	31	1814	24	0	119	143	52	1784	37	1873	3945
% App. Total	60.9	0	39.1		1.8	96.5	1.7		16.8	0	83.2		2.8	95.2	2		
PHF	.700	.000	.625	.846	.750	.884	.705	.889	.545	.000	.902	.831	.867	.985	.578	.976	.932



APPENDIX B

General Plan Intersection Analysis Summary

Table 5.11-3 Existing Conditions Intersection Operations Analysis Summary

ID	Intersection	LOS E Acceptable	(V/C)1		LOS2	
			AM	PM	AM	PM
28	Bayside Dr./Coast Hwy.		0.64	0.60	B	A
29	MacArthur Bl./Jamboree Rd.	x	0.58	0.71	A	C
30	Jamboree Rd./Bristol St. (N)		0.38	0.47	A	A
31	Bayview Pl./Bristol St. (S)		0.40	0.43	A	A
32	Jamboree Rd./Bristol St. (S)		0.58	0.55	A	A
33	Jamboree Rd./Bayview Wy		0.43	0.53	A	A
34	Jamboree Rd./University Dr.		0.56	0.57	A	A
35	Jamboree Rd./Bison Av.		0.51	0.45	A	A
36	Jamboree Rd./Ford Rd.		0.76	0.63	C	B
37	Jamboree Rd./San Joaquin Hills Rd.		0.60	0.82	A	D
38	Jamboree Rd./Santa Barbara Dr.		0.49	0.65	A	B
39	Jamboree Rd./Coast Hwy.		0.56	0.65	A	B
40	Santa Cruz Dr./San Joaquin Hills Rd.		0.31	0.34	A	A
41	Santa Rosa Dr./San Joaquin Hills Rd.		0.37	0.61	A	B
42	Newport Ctr. Dr./Coast Hwy.		0.36	0.44	A	A
44	Avocado Av./San Miguel Dr.		0.35	0.62	A	B
45	Avocado Av./Coast Hwy.		0.43	0.53	A	A
46	SR-73 NB/Bison Av.		0.58	0.48	A	A
47	SR-73 SB/Bison Av.		0.48	0.25	A	A
48	MacArthur Bl./Bison Av.		0.59	0.59	A	A
49	MacArthur Bl./Ford Dr.		0.76	0.87	C	D
50	MacArthur Bl./San Joaquin Hills Rd.		0.57	0.76	A	C
51	MacArthur Bl./San Miguel Dr.		0.65	0.57	B	A
52	MacArthur Bl./Coast Hwy.		0.51	0.57	A	A
53	SR-73 NB/Bonita Canyon Dr.		0.47	0.51	A	A
54	SR-73 SB/Bonita Canyon Dr.		0.37	0.54	A	A
55	Spy Glass Hill Rd./San Miguel Dr.		0.27	0.32	A	A
56	San Miguel Dr./San Joaquin Hills Rd.		0.44	0.48	A	A
57	Goldenrod Av./Coast Hwy.	x	0.74	0.72	C	C
58	Marguerite Av./San Joaquin Hills Rd.		0.41	0.44	A	A
59	Marguerite Av./Coast Hwy.	x	0.77	0.72	C	C
60	Spy Glass Hill Rd./San Joaquin Hills Rd.		0.33	0.29	A	A

Table 5.11-7 2006 General Plan Intersection Peak Hour Delays and Levels of Service

ID	Intersection	ICU (V/C)[1]		LOS[2]	
		AM	PM	AM	PM
33	Jamboree Rd./Bayview Wy				
	Existing Lanes	0.44	0.56	A	A
34	Jamboree Rd./University Dr.				
	Existing Lanes	0.61	0.63	B	B
35	Jamboree Rd./Bison Av.				
	Existing Lanes	0.56	0.55	A	A
36	Jamboree Rd./Ford Rd.				
	Existing Lanes	0.84	0.75	D	C
37	Jamboree Rd./San Joaquin Hills Rd.				
	Existing Lanes	0.72	0.84	C	D
38	Jamboree Rd./Santa Barbara Dr.				
	Existing Lanes	0.61	0.79	B	C
39	Jamboree Rd./Coast Hwy.				
	Existing Lanes	0.71	0.79	C	C
40	Santa Cruz Dr./San Joaquin Hills Rd.				
	Existing Lanes	0.36	0.35	A	A
41	Santa Rosa Dr./San Joaquin Hills Rd.				
	Existing Lanes	0.55	0.79	A	C
42	Newport Ctr. Dr./Coast Hwy.				
	Existing Lanes	0.42	0.53	A	A
44	Avocado Av./San Miguel Dr.				
	Existing Lanes	0.37	0.64	A	B
45	Avocado Av./Coast Hwy.				
	Existing Lanes	0.55	0.68	A	B
46	SR-73 NB/Bison Av.				
	Existing Lanes	0.74	0.57	C	A
47	SR-73 SB/Bison Av.				
	Existing Lanes	0.61	0.33	B	A
48	MacArthur Bl./Bison Av.				
	Existing Lanes	0.78	0.73	C	C

Element related to alternative transportation. Changes in land use intensities and land uses would have no effect on the placement of bus stops or any other aspect of the public transportation system. Impacts would be less than significant, and no mitigation is necessary.

5.11.4 Relevant General Plan Policies

Existing Policies

Circulation Element (CE)

Goal CE 1.1: An overall transportation system that facilitates the movement of people and goods within and through the City of Newport Beach and accommodates conservative growth within the City of Newport Beach, but is not expanded primarily to accommodate growth in the surrounding region.

- **CE 1.1.1 - Comprehensive Transportation System:** Provide a diverse transportation system that provides mobility options for the community.

- **CE 1.1.2 - Integrated System of Multiple Modes:** Provide an integrated transportation system that supports the land use plan set forth in the Land Use Element.

- **CE 1.1.3 - Levels of Service Related to Community Character:** Establish level of service standards that reflect the character of the various unique districts and neighborhoods of Newport Beach.

Goal CE 1.2: Reduced summertime visitor traffic impacts.

- **CE 1.2.4 - Public Transit:** Support and encourage OCTA efforts to provide/fund summertime expanded bus service and/or local shuttle services to reduce visitor traffic.

Goal CE 2.1: A roadway system that provides for the efficient movement of goods and people in the City of Newport Beach, while maintaining the community's character and its residents' quality of life.

- **CE 2.1.1 - Level of Service Standards:** Plan the arterial roadway system to accommodate projected traffic at the following level of service standards:

  a. Level of Service (LOS) "D" throughout the City, unless otherwise noted

  b. LOS "E" at any intersection in the Airport Area shared with Irvine

  c. LOS "E" at Coast Highway (EW) and Dover Drive (NS) due to right-of-way Limitations

  d. LOS "E" at Marguerite Avenue (NS) and Coast Highway (EW) in the pedestrian oriented area of Corona del Mar

  e. LOS "E" at Goldenrod Avenue (NS) and Coast Highway (EW) in the pedestrian oriented area of in Corona del Mar

APPENDIX C

Existing (2016) Intersection Level of Service Worksheets

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.323
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	83	3	19	20	8	62	60	641	242	119	480	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	3	19	20	8	62	60	641	242	119	480	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	83	3	19	20	8	62	60	641	242	119	480	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	3	19	20	8	62	60	641	242	119	480	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	83	3	19	20	8	62	60	641	242	119	480	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.14	0.86	1.00	1.00	1.00	1.00	2.18	0.82	1.00	2.90	0.10
Final Sat.:	3200	218	1382	1600	1600	1600	1600	3484	1316	1600	4636	164
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.01	0.01	0.01	0.04	0.04	0.18	0.18	0.07	0.10	0.10
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.316
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	40	6	65	78	10	48	51	358	157	500	474	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	6	65	78	10	48	51	358	157	500	474	75
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	6	0	78	10	48	51	358	157	500	474	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	6	0	78	10	48	51	358	157	500	474	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	6	0	78	10	48	51	358	157	500	474	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.09	0.91	2.00	2.59	0.41
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3337	1463	3200	4144	656
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.00	0.05	0.01	0.03	0.03	0.11	0.11	0.16	0.11	0.11
Crit Moves:	****			****				****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.713
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 65 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 1 0
Volume Module:												
Base Vol:	129	0	38	65	0	56	16	1427	84	40	1704	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	129	0	38	65	0	56	16	1427	84	40	1704	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	0	38	65	0	56	16	1427	84	40	1704	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	0	38	65	0	56	16	1427	84	40	1704	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	129	0	38	65	0	56	16	1427	84	40	1704	46
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.77	0.00	0.23	0.54	0.00	0.46	1.00	1.89	0.11	1.00	1.95	0.05
Final Sat.:	1236	0	364	860	0	740	1600	3022	178	1600	3116	84
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.10	0.04	0.00	0.08	0.01	0.47	0.47	0.03	0.55	0.55
Crit Moves:	****					****	****				****	

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.355
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	430	10	145	13	4	84	81	421	219	50	555	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	430	10	145	13	4	84	81	421	219	50	555	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	430	10	145	13	4	84	81	421	219	50	555	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	430	10	145	13	4	84	81	421	219	50	555	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	430	10	145	13	4	84	81	421	219	50	555	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.06	0.94	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.86	0.14
Final Sat.:	3200	103	1497	1600	1600	1600	1600	3200	1600	1600	4577	223
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.01	0.00	0.05	0.05	0.13	0.14	0.03	0.12	0.12
Crit Moves:	****					****			****	****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.431
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	214	24	326	85	20	38	38	714	116	323	222	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	214	24	326	85	20	38	38	714	116	323	222	84
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	214	24	0	85	20	38	38	714	116	323	222	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	214	24	0	85	20	38	38	714	116	323	222	84
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	214	24	0	85	20	38	38	714	116	323	222	84
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.58	0.42	2.00	2.18	0.82
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4129	671	3200	3482	1318
Capacity Analysis Module:												
Vol/Sat:	0.13	0.02	0.00	0.05	0.01	0.02	0.02	0.17	0.17	0.10	0.06	0.06
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.754
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	121	0	24		46	0	71		38	1820	53		32	1785	34	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	121	0	24		46	0	71		38	1820	53		32	1785	34	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	121	0	24		46	0	71		38	1820	53		32	1785	34	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	121	0	24		46	0	71		38	1820	53		32	1785	34	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	121	0	24		46	0	71		38	1820	53		32	1785	34	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.83	0.00	0.17		0.39	0.00	0.61		1.00	1.94	0.06		1.00	1.96	0.04	
Final Sat.:	1335	0	265		629	0	971		1600	3109	91		1600	3140	60	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.00	0.09		0.03	0.00	0.07		0.02	0.59	0.59		0.02	0.57	0.57	
Crit Moves:	****						****			****				****		

APPENDIX D

Existing (2016) Plus Project Intersection Level of Service Worksheets

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.324
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	83	3	19	20	8	62	60	641	242	119	480	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	3	19	20	8	62	60	641	242	119	480	17
Added Vol:	1	0	7	0	0	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	3	26	20	8	62	60	641	242	120	480	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	3	26	20	8	62	60	641	242	120	480	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	3	26	20	8	62	60	641	242	120	480	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	3	26	20	8	62	60	641	242	120	480	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.10	0.90	1.00	1.00	1.00	1.00	2.18	0.82	1.00	2.90	0.10
Final Sat.:	3200	166	1434	1600	1600	1600	1600	3484	1316	1600	4636	164
Capacity Analysis Module:												
Vol/Sat:	0.03	0.02	0.02	0.01	0.01	0.04	0.04	0.18	0.18	0.08	0.10	0.10
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.317
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	40	6	65	78	10	48	51	358	157	500	474	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	6	65	78	10	48	51	358	157	500	474	75
Added Vol:	0	0	0	0	0	0	0	7	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	6	65	78	10	48	51	365	157	500	475	75
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	6	0	78	10	48	51	365	157	500	475	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	6	0	78	10	48	51	365	157	500	475	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	6	0	78	10	48	51	365	157	500	475	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.10	0.90	2.00	2.59	0.41
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3356	1444	3200	4145	655
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.00	0.05	0.01	0.03	0.03	0.11	0.11	0.16	0.11	0.11
Crit Moves:	****			****				****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.713
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	129	0	38	65	0	56	16	1427	84	40	1704	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	129	0	38	65	0	56	16	1427	84	40	1704	46
Added Vol:	0	0	0	0	0	0	0	4	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	129	0	38	65	0	56	16	1431	84	40	1704	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	0	38	65	0	56	16	1431	84	40	1704	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	0	38	65	0	56	16	1431	84	40	1704	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	129	0	38	65	0	56	16	1431	84	40	1704	46
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.77	0.00	0.23	0.54	0.00	0.46	1.00	1.89	0.11	1.00	1.95	0.05
Final Sat.:	1236	0	364	860	0	740	1600	3023	177	1600	3116	84
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.10	0.04	0.00	0.08	0.01	0.47	0.47	0.03	0.55	0.55
Crit Moves:	****					****	****				****	

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.360
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	430	10	145	13	4	84	81	421	219	50	555	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	430	10	145	13	4	84	81	421	219	50	555	27
Added Vol:	1	0	3	0	0	0	0	0	1	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	431	10	148	13	4	84	81	421	220	56	555	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	431	10	148	13	4	84	81	421	220	56	555	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	431	10	148	13	4	84	81	421	220	56	555	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	431	10	148	13	4	84	81	421	220	56	555	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.06	0.94	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.86	0.14
Final Sat.:	3200	101	1499	1600	1600	1600	1600	3200	1600	1600	4577	223
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.01	0.00	0.05	0.05	0.13	0.14	0.04	0.12	0.12
Crit Moves:	****					****			****	****		

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OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.432
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	214	24	326	85	20	38	38	714	116	323	222	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	214	24	326	85	20	38	38	714	116	323	222	84
Added Vol:	0	0	0	0	0	0	0	3	0	0	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	214	24	326	85	20	38	38	717	116	323	228	84
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	214	24	0	85	20	38	38	717	116	323	228	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	214	24	0	85	20	38	38	717	116	323	228	84
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	214	24	0	85	20	38	38	717	116	323	228	84
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.58	0.42	2.00	2.19	0.81
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4132	668	3200	3508	1292
Capacity Analysis Module:												
Vol/Sat:	0.13	0.02	0.00	0.05	0.01	0.02	0.02	0.17	0.17	0.10	0.06	0.07
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.754
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	121	0	24		46	0	71		38	1820	53		32	1785	34	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	121	0	24		46	0	71		38	1820	53		32	1785	34	
Added Vol:	0	0	0		0	0	0		0	1	0		0	3	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	121	0	24		46	0	71		38	1821	53		32	1788	34	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	121	0	24		46	0	71		38	1821	53		32	1788	34	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	121	0	24		46	0	71		38	1821	53		32	1788	34	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	121	0	24		46	0	71		38	1821	53		32	1788	34	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.83	0.00	0.17		0.39	0.00	0.61		1.00	1.94	0.06		1.00	1.96	0.04	
Final Sat.:	1335	0	265		629	0	971		1600	3109	91		1600	3140	60	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.00	0.09		0.03	0.00	0.07		0.02	0.59	0.59		0.02	0.57	0.57	
Crit Moves:	****						****			****				****		

APPENDIX E

Approved Projects

Traffic Phasing Data
Projects Less Than 100% Complete

Project Number	Project Name	Percent
148	FASHION ISLAND EXPANSION	40 %
154	TEMPLE BAT YAHM EXPANSION	65 %
910	NEWPORT DUNES	0 %
945	HOAG HOSPITAL PHASE III	0 %
949	ST. MARK PRESBYTERIAN CHU	77 %
955	2300 NEWPORT BLVD	0 %
958	HOAG HEALTH CENTER	85 %
959	NORTH NEWPORT CENTER	0 %
960	SANTA BARBARA CONDO (MARR	33 %
962	328 OLD NEWPORT MEDICAL O	0 %
965	MARINER'S POINTE 23,015 S	0 %
966	4221 DOLPHIN STRIKER - 13	55 %
967	SAN JOAQUIN HILLS PLZA RE	0 %
968	UPTOWN NEWPORT (PHASE 2)	0 %
969	UPTOWN NEWPORT (PHASE 1)	0 %
970	MARINA PARK	0 %
971	BACK BAY LANDING 300 ECH	0 %
972	WESTCLIFF DRIVE MEDICAL P	0 %
973	LIDO HOUSE HOTEL TRAFFIC	0 %
974	NEWPORT EXECUTIVE CTR	0 %
975	EBB TIDE RESIDENTIAL	0 %
976	ENC PRE-SCHOOL	0 %

Traffic Phasing Ordinance
Approved Projects 80% Volume Summary
Intersection Report

Int. Number: 5060 Int. Name: SANTA CRUZ DR / SAN JOAQUIN HILLS RD BIG CANYON DR W

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM	32		50	11	30		2					45	5	1	10	
PM	13		36	49	12		1					14	22	5	44	

Int. Number: 5065 Int. Name: SANTA ROSA DR / SAN JOAQUIN HILLS RD BIG CANYON DR E

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM	40		52	13	14		26					8	44	5	8	
PM	74		24	41	45		29					8	15	26	15	

Int. Number: 6355 Int. Name: GOLDENROD AVE / COAST HWY E

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM			16	24								16			24	
PM			22	8								22			8	

APPENDIX F

Future (2021) Plus Approved Plus Growth Intersection Level of Service Worksheets - TPO

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.343
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	83	3	19	20	8	62	60	641	242	119	480	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	3	19	20	8	62	60	641	242	119	480	17
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	30	0	2	0	0	0	0	45	5	1	10	0
Initial Fut:	113	3	21	20	8	62	60	686	247	120	490	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	113	3	21	20	8	62	60	686	247	120	490	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	3	21	20	8	62	60	686	247	120	490	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	113	3	21	20	8	62	60	686	247	120	490	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.12	0.88	1.00	1.00	1.00	1.00	2.21	0.79	1.00	2.90	0.10
Final Sat.:	3200	200	1400	1600	1600	1600	1600	3529	1271	1600	4639	161
Capacity Analysis Module:												
Vol/Sat:	0.04	0.02	0.02	0.01	0.01	0.04	0.04	0.19	0.19	0.08	0.11	0.11
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.347
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	40	6	65	78	10	48	51	358	157	500	474	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	6	65	78	10	48	51	358	157	500	474	75
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	14	0	26	0	0	0	0	8	44	5	8	0
Initial Fut:	54	6	91	78	10	48	51	366	201	505	482	75
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	6	0	78	10	48	51	366	201	505	482	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	6	0	78	10	48	51	366	201	505	482	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	6	0	78	10	48	51	366	201	505	482	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.60	0.40
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3200	1600	3200	4154	646
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.00	0.05	0.01	0.03	0.03	0.11	0.13	0.16	0.12	0.12
Crit Moves:	****					****			****	****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 1 0
Volume Module:												
Base Vol:	129	0	38	65	0	56	16	1427	84	40	1704	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	129	0	38	65	0	56	17	1498	88	42	1789	48
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	16	0	0	24	0
Initial Fut:	129	0	38	65	0	56	17	1514	88	42	1813	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	0	38	65	0	56	17	1514	88	42	1813	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	0	38	65	0	56	17	1514	88	42	1813	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	129	0	38	65	0	56	17	1514	88	42	1813	48
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.77	0.00	0.23	0.54	0.00	0.46	1.00	1.89	0.11	1.00	1.95	0.05
Final Sat.:	1236	0	364	860	0	740	1600	3024	176	1600	3117	83
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.10	0.04	0.00	0.08	0.01	0.50	0.50	0.03	0.58	0.58
Crit Moves:	****					****	****				****	

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.372
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	430	10	145	13	4	84	81	421	219	50	555	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	430	10	145	13	4	84	81	421	219	50	555	27
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	12	0	1	0	0	0	0	14	22	5	44	0
Initial Fut:	442	10	146	13	4	84	81	435	241	55	599	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	442	10	146	13	4	84	81	435	241	55	599	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	442	10	146	13	4	84	81	435	241	55	599	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	442	10	146	13	4	84	81	435	241	55	599	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.06	0.94	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.87	0.13
Final Sat.:	3200	103	1497	1600	1600	1600	1600	3200	1600	1600	4593	207
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.10	0.01	0.00	0.05	0.05	0.14	0.15	0.03	0.13	0.13
Crit Moves:	****					****	****				****	

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.472
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	214	24	326	85	20	38	38	714	116	323	222	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	214	24	326	85	20	38	38	714	116	323	222	84
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	45	0	29	0	0	0	0	8	15	26	15	0
Initial Fut:	259	24	355	85	20	38	38	722	131	349	237	84
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	259	24	0	85	20	38	38	722	131	349	237	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	24	0	85	20	38	38	722	131	349	237	84
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	259	24	0	85	20	38	38	722	131	349	237	84
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.54	0.46	2.00	2.21	0.79
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4063	737	3200	3544	1256
Capacity Analysis Module:												
Vol/Sat:	0.16	0.02	0.00	0.05	0.01	0.02	0.02	0.18	0.18	0.11	0.07	0.07
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.791
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	89	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1 0	1	0	1 1 0
Volume Module:												
Base Vol:	121	0	24	46	0	71	38	1820	53	32	1785	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	121	0	24	46	0	71	40	1911	56	34	1874	36
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	22	0	0	8	0
Initial Fut:	121	0	24	46	0	71	40	1933	56	34	1882	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	121	0	24	46	0	71	40	1933	56	34	1882	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	0	24	46	0	71	40	1933	56	34	1882	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	0	24	46	0	71	40	1933	56	34	1882	36
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.83	0.00	0.17	0.39	0.00	0.61	1.00	1.94	0.06	1.00	1.96	0.04
Final Sat.:	1335	0	265	629	0	971	1600	3110	90	1600	3140	60
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.09	0.03	0.00	0.07	0.02	0.62	0.62	0.02	0.60	0.60
Crit Moves:	****					****		****		****		

APPENDIX G

TPO Analysis One Percent Threshold Calculation Worksheets

AM Peak Hour

TPO One Percent Threshold Analysis Required

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
1. Santa Cruz/San Joaquin Hills Rd													
Base (Existing + Growth)	83	3	19	20	8	62	60	641	242	119	480	17	1754
Approved Project Trips	30	0	2	0	0	0	0	45	5	1	10	0	93
Total Base Volume (Base + Approved)	113	3	21	20	8	62	60	686	247	120	490	17	1847
Total Approach Volume of Base		137			90			993			627		
1% of Base Volume		1.37			0.9			9.93			6.27		
Project Trip at Approaches	1	0	7	0	0	0	0	0	0	1	0	0	
2. Santa Rosa/San Joaquin Hills Rd													
Base (Existing + Growth)	40	6	65	78	10	48	51	358	157	500	474	75	1862
Approved Project Trips	14	0	26	0	0	0	0	8	44	5	8	0	105
Total Base Volume (Base + Approved)	54	6	91	78	10	48	51	366	201	505	482	75	1967
Total Approach Volume of Base		151			136			618			1062		
1% of Base Volume		1.51			1.36			6.18			10.62		
Project Trip at Approaches	0	0	0	0	0	0	0	7	0	0	1	0	
3. Goldenrod Ave/PCH													
Base (Existing + Growth)	129	0	38	65	0	56	17	1498	88	42	1789	48	3770
Approved Project Trips	0	0	0	0	0	0	0	16	0	0	24	0	40
Total Base Volume (Base + Approved)	129	0	38	65	0	56	17	1514	88	42	1813	48	3810
Total Approach Volume of Base		167			121			1619			1903		
1% of Base Volume		1.67			1.21			16.19			19.03		
Project Trip at Approaches	0	0	0	0	0	0	0	4	0	0	0	0	

PM Peak Hour

TPO One Percent Threshold Analysis Required

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
1. Santa Cruz/San Joaquin Hills Rd													
Base (Existing + Growth)	430	10	145	13	4	84	81	421	219	50	555	27	2039
Approved Project Trips	12	0	1	0	0	0	0	14	22	5	44	0	98
Total Base Volume (Base + Approved)	442	10	146	13	4	84	81	435	241	55	599	27	2137
Total Approach Volume of Base		598			101			757			681		
1% of Base Volume		5.98			1.01			7.57			6.81		
Project Trip at Approaches	1	0	3	0	0	0	0	0	1	6	0	0	
2. Santa Rosa/San Joaquin Hills Rd													
Base (Existing + Growth)	214	24	326	85	20	38	38	714	116	323	222	84	2204
Approved Project Trips	45	0	29	0	0	0	0	8	15	26	15	0	138
Total Base Volume (Base + Approved)	259	24	355	85	20	38	38	722	131	349	237	84	2342
Total Approach Volume of Base		638			143			891			670		
1% of Base Volume		6.38			1.43			8.91			6.7		
Project Trip at Approaches	0	0	0	0	0	0	0	3	0	0	6	0	
3. Goldenrod Ave/PCH													
Base (Existing + Growth)	121	0	24	46	0	71	40	1911	56	34	1874	36	4213
Approved Project Trips	0	0	0	0	0	0	0	22	0	0	8	0	30
Total Base Volume (Base + Approved)	121	0	24	46	0	71	40	1933	56	34	1882	36	4243
Total Approach Volume of Base		145			117			2029			1952		
1% of Base Volume		1.45			1.17			20.29			19.52		
Project Trip at Approaches	0	0	0	0	0	0	0	1	0	0	3	0	

APPENDIX H

Future (2021) Plus Approved Plus Growth Plus Project Intersection Level of Service Worksheets - TPO

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.344
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	83	3	19	20	8	62	60	641	242	119	480	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	3	19	20	8	62	60	641	242	119	480	17
Added Vol:	1	0	7	0	0	0	0	0	0	1	0	0
PasserByVol:	30	0	2	0	0	0	0	45	5	1	10	0
Initial Fut:	114	3	28	20	8	62	60	686	247	121	490	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	114	3	28	20	8	62	60	686	247	121	490	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	3	28	20	8	62	60	686	247	121	490	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	114	3	28	20	8	62	60	686	247	121	490	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.10	0.90	1.00	1.00	1.00	1.00	2.21	0.79	1.00	2.90	0.10
Final Sat.:	3200	155	1445	1600	1600	1600	1600	3529	1271	1600	4639	161
Capacity Analysis Module:												
Vol/Sat:	0.04	0.02	0.02	0.01	0.01	0.04	0.04	0.19	0.19	0.08	0.11	0.11
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.347
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	40	6	65	78	10	48	51	358	157	500	474	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	6	65	78	10	48	51	358	157	500	474	75
Added Vol:	0	0	0	0	0	0	0	7	0	0	1	0
PasserByVol:	14	0	26	0	0	0	0	8	44	5	8	0
Initial Fut:	54	6	91	78	10	48	51	373	201	505	483	75
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	6	0	78	10	48	51	373	201	505	483	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	6	0	78	10	48	51	373	201	505	483	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	6	0	78	10	48	51	373	201	505	483	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.60	0.40
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3200	1600	3200	4155	645
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.00	0.05	0.01	0.03	0.03	0.12	0.13	0.16	0.12	0.12
Crit Moves:	****					****			****	****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.380
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	430	10	145	13	4	84	81	421	219	50	555	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	430	10	145	13	4	84	81	421	219	50	555	27
Added Vol:	1	0	3	0	0	0	0	0	1	6	0	0
PasserByVol:	12	0	1	0	0	0	0	14	22	5	44	0
Initial Fut:	443	10	149	13	4	84	81	435	242	61	599	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	443	10	149	13	4	84	81	435	242	61	599	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	443	10	149	13	4	84	81	435	242	61	599	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	443	10	149	13	4	84	81	435	242	61	599	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.06	0.94	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.87	0.13
Final Sat.:	3200	101	1499	1600	1600	1600	1600	3200	1600	1600	4593	207
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.10	0.01	0.00	0.05	0.05	0.14	0.15	0.04	0.13	0.13
Crit Moves:	****					****			****	****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.473
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	214	24	326	85	20	38	38	714	116	323	222	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	214	24	326	85	20	38	38	714	116	323	222	84
Added Vol:	0	0	0	0	0	0	0	3	0	0	6	0
PasserByVol:	45	0	29	0	0	0	0	8	15	26	15	0
Initial Fut:	259	24	355	85	20	38	38	725	131	349	243	84
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	259	24	0	85	20	38	38	725	131	349	243	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	24	0	85	20	38	38	725	131	349	243	84
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	259	24	0	85	20	38	38	725	131	349	243	84
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.54	0.46	2.00	2.23	0.77
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4065	735	3200	3567	1233
Capacity Analysis Module:												
Vol/Sat:	0.16	0.02	0.00	0.05	0.01	0.02	0.02	0.18	0.18	0.11	0.07	0.07
Crit Moves:	****					****		****		****		

APPENDIX I

Future (2021) Plus Approved Plus Cumulative Growth Intersection Level of Service Worksheets

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.343
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	83	3	19	20	8	62	60	641	242	119	480	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	3	19	20	8	62	60	641	242	119	480	17
Added Vol:	0	0	0	0	0	0	0	0	0	0	1	0
PasserByVol:	30	0	2	0	0	0	0	45	5	1	10	0
Initial Fut:	113	3	21	20	8	62	60	686	247	120	491	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	113	3	21	20	8	62	60	686	247	120	491	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	3	21	20	8	62	60	686	247	120	491	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	113	3	21	20	8	62	60	686	247	120	491	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.12	0.88	1.00	1.00	1.00	1.00	2.21	0.79	1.00	2.90	0.10
Final Sat.:	3200	200	1400	1600	1600	1600	1600	3529	1271	1600	4639	161
Capacity Analysis Module:												
Vol/Sat:	0.04	0.02	0.02	0.01	0.01	0.04	0.04	0.19	0.19	0.08	0.11	0.11
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.347
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	40	6	65	78	10	48	51	358	157	500	474	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	6	65	78	10	48	51	358	157	500	474	75
Added Vol:	0	0	0	0	0	0	0	3	0	0	10	0
PasserByVol:	14	0	26	0	0	0	0	8	44	5	8	0
Initial Fut:	54	6	91	78	10	48	51	369	201	505	492	75
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	6	0	78	10	48	51	369	201	505	492	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	6	0	78	10	48	51	369	201	505	492	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	6	0	78	10	48	51	369	201	505	492	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.60	0.40
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3200	1600	3200	4165	635
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.00	0.05	0.01	0.03	0.03	0.12	0.13	0.16	0.12	0.12
Crit Moves:	****					****			****	****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.881
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	157	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 1! 0		0	0 1! 0		1	0 1	0	1	0 1	0
Volume Module:												
Base Vol:	129	0	38	65	0	56	16	1427	84	40	1704	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	129	0	38	65	0	56	17	1498	88	42	1789	48
Added Vol:	0	0	0	0	0	0	0	151	0	0	425	0
PasserByVol:	0	0	0	0	0	0	0	16	0	0	24	0
Initial Fut:	129	0	38	65	0	56	17	1665	88	42	2238	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	0	38	65	0	56	17	1665	88	42	2238	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	0	38	65	0	56	17	1665	88	42	2238	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	129	0	38	65	0	56	17	1665	88	42	2238	48
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.77	0.00	0.23	0.54	0.00	0.46	1.00	1.90	0.10	1.00	1.96	0.04
Final Sat.:	1236	0	364	860	0	740	1600	3039	161	1600	3132	68
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.10	0.04	0.00	0.08	0.01	0.55	0.55	0.03	0.71	0.71
Crit Moves:	****					****	****				****	

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.372
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	430	10	145	13	4	84	81	421	219	50	555	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	430	10	145	13	4	84	81	421	219	50	555	27
Added Vol:	0	0	0	0	0	0	0	1	0	0	3	0
PasserByVol:	12	0	1	0	0	0	0	14	22	5	44	0
Initial Fut:	442	10	146	13	4	84	81	436	241	55	602	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	442	10	146	13	4	84	81	436	241	55	602	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	442	10	146	13	4	84	81	436	241	55	602	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	442	10	146	13	4	84	81	436	241	55	602	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.06	0.94	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.87	0.13
Final Sat.:	3200	103	1497	1600	1600	1600	1600	3200	1600	1600	4594	206
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.10	0.01	0.00	0.05	0.05	0.14	0.15	0.03	0.13	0.13
Crit Moves:	****					****	****				****	

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.474
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	214	24	326	85	20	38	38	714	116	323	222	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	214	24	326	85	20	38	38	714	116	323	222	84
Added Vol:	0	0	0	0	0	0	0	10	0	0	8	0
PasserByVol:	45	0	29	0	0	0	0	8	15	26	15	0
Initial Fut:	259	24	355	85	20	38	38	732	131	349	245	84
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	259	24	0	85	20	38	38	732	131	349	245	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	24	0	85	20	38	38	732	131	349	245	84
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	259	24	0	85	20	38	38	732	131	349	245	84
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.54	0.46	2.00	2.23	0.77
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4071	729	3200	3574	1226
Capacity Analysis Module:												
Vol/Sat:	0.16	0.02	0.00	0.05	0.01	0.02	0.02	0.18	0.18	0.11	0.07	0.07
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.929
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 1! 0		0	0 1! 0		1	0 1	0	1	0 1	0
Volume Module:												
Base Vol:	121	0	24	46	0	71	38	1820	53	32	1785	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	121	0	24	46	0	71	40	1911	56	34	1874	36
Added Vol:	0	0	0	0	0	0	0	442	0	0	291	0
PasserByVol:	0	0	0	0	0	0	0	22	0	0	8	0
Initial Fut:	121	0	24	46	0	71	40	2375	56	34	2173	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	121	0	24	46	0	71	40	2375	56	34	2173	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	0	24	46	0	71	40	2375	56	34	2173	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	0	24	46	0	71	40	2375	56	34	2173	36
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.83	0.00	0.17	0.39	0.00	0.61	1.00	1.95	0.05	1.00	1.97	0.03
Final Sat.:	1335	0	265	629	0	971	1600	3127	73	1600	3148	52
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.09	0.03	0.00	0.07	0.02	0.76	0.76	0.02	0.69	0.69
Crit Moves:	****					****		****		****		

APPENDIX J

Future (2021) Plus Approved Plus Cumulative Plus Growth Plus Project Intersection Level of Service Worksheets

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.344
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	83	3	19	20	8	62	60	641	242	119	480	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	3	19	20	8	62	60	641	242	119	480	17
Added Vol:	1	0	7	0	0	0	0	0	0	1	1	0
PasserByVol:	30	0	2	0	0	0	0	45	5	1	10	0
Initial Fut:	114	3	28	20	8	62	60	686	247	121	491	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	114	3	28	20	8	62	60	686	247	121	491	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	3	28	20	8	62	60	686	247	121	491	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	114	3	28	20	8	62	60	686	247	121	491	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.10	0.90	1.00	1.00	1.00	1.00	2.21	0.79	1.00	2.90	0.10
Final Sat.:	3200	155	1445	1600	1600	1600	1600	3529	1271	1600	4639	161
Capacity Analysis Module:												
Vol/Sat:	0.04	0.02	0.02	0.01	0.01	0.04	0.04	0.19	0.19	0.08	0.11	0.11
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.347
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	40	6	65	78	10	48	51	358	157	500	474	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	6	65	78	10	48	51	358	157	500	474	75
Added Vol:	0	0	0	0	0	0	0	10	0	0	11	0
PasserByVol:	14	0	26	0	0	0	0	8	44	5	8	0
Initial Fut:	54	6	91	78	10	48	51	376	201	505	493	75
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	6	0	78	10	48	51	376	201	505	493	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	6	0	78	10	48	51	376	201	505	493	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	6	0	78	10	48	51	376	201	505	493	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.60	0.40
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3200	1600	3200	4166	634
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.00	0.05	0.01	0.03	0.03	0.12	0.13	0.16	0.12	0.12
Crit Moves:	****					****			****	****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.881
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	157	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 1 0
Volume Module:												
Base Vol:	129	0	38	65	0	56	16	1427	84	40	1704	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	129	0	38	65	0	56	17	1498	88	42	1789	48
Added Vol:	0	0	0	0	0	0	0	155	0	0	425	0
PasserByVol:	0	0	0	0	0	0	0	16	0	0	24	0
Initial Fut:	129	0	38	65	0	56	17	1669	88	42	2238	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	0	38	65	0	56	17	1669	88	42	2238	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	0	38	65	0	56	17	1669	88	42	2238	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	129	0	38	65	0	56	17	1669	88	42	2238	48
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.77	0.00	0.23	0.54	0.00	0.46	1.00	1.90	0.10	1.00	1.96	0.04
Final Sat.:	1236	0	364	860	0	740	1600	3039	161	1600	3132	68
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.10	0.04	0.00	0.08	0.01	0.55	0.55	0.03	0.71	0.71
Crit Moves:	****					****	****				****	

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #101 Santa Cruz Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.380
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	430	10	145	13	4	84	81	421	219	50	555	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	430	10	145	13	4	84	81	421	219	50	555	27
Added Vol:	1	0	3	0	0	0	0	1	1	6	3	0
PasserByVol:	12	0	1	0	0	0	0	14	22	5	44	0
Initial Fut:	443	10	149	13	4	84	81	436	242	61	602	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	443	10	149	13	4	84	81	436	242	61	602	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	443	10	149	13	4	84	81	436	242	61	602	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	443	10	149	13	4	84	81	436	242	61	602	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.06	0.94	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.87	0.13
Final Sat.:	3200	101	1499	1600	1600	1600	1600	3200	1600	1600	4594	206
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.10	0.01	0.00	0.05	0.05	0.14	0.15	0.04	0.13	0.13
Crit Moves:	****					****			****	****		

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OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #102 Santa Rosa Dr (NS) at San Joaquin Hills Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.475
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 1	0	2 0	2 1	0
Volume Module:												
Base Vol:	214	24	326	85	20	38	38	714	116	323	222	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	214	24	326	85	20	38	38	714	116	323	222	84
Added Vol:	0	0	0	0	0	0	0	14	0	0	14	0
PasserByVol:	45	0	29	0	0	0	0	8	15	26	15	0
Initial Fut:	259	24	355	85	20	38	38	736	131	349	251	84
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	259	24	0	85	20	38	38	736	131	349	251	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	24	0	85	20	38	38	736	131	349	251	84
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	259	24	0	85	20	38	38	736	131	349	251	84
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.55	0.45	2.00	2.25	0.75
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4075	725	3200	3596	1204
Capacity Analysis Module:												
Vol/Sat:	0.16	0.02	0.00	0.05	0.01	0.02	0.02	0.18	0.18	0.11	0.07	0.07
Crit Moves:	****					****		****		****		

OCMA Residential Development Traffic Impact Study
City of Newport Beach

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

Intersection #103 Goldenrod (NS) at Pacific Coast Highway (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.930
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 1 0
Volume Module:												
Base Vol:	121	0	24	46	0	71	38	1820	53	32	1785	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	121	0	24	46	0	71	40	1911	56	34	1874	36
Added Vol:	0	0	0	0	0	0	0	443	0	0	295	0
PasserByVol:	0	0	0	0	0	0	0	22	0	0	8	0
Initial Fut:	121	0	24	46	0	71	40	2376	56	34	2177	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	121	0	24	46	0	71	40	2376	56	34	2177	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	0	24	46	0	71	40	2376	56	34	2177	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	0	24	46	0	71	40	2376	56	34	2177	36
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.83	0.00	0.17	0.39	0.00	0.61	1.00	1.95	0.05	1.00	1.97	0.03
Final Sat.:	1335	0	265	629	0	971	1600	3127	73	1600	3148	52
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.09	0.03	0.00	0.07	0.02	0.76	0.76	0.02	0.69	0.69
Crit Moves:	****					****		****		****		

City of Newport Beach
PUBLIC WORKS DEPARTMENT

August 9, 2016

TO: PLANNING DIVISION

FROM: PUBLIC WORKS DEPARTMENT

SUBJECT: RESPONSE TO CONSTRUCTION TRAFFIC CLARIFICATION SUPPLEMENTS OCMA-RESIDENTIAL PROJECT TRAFFIC IMPACT STUDY PREPARED BY DKS ASSOCIATES (DATED APRIL 29, 2016) 850 SAN CLEMENTE

Based on clarification of the Project's construction information on 8/5/16, it is estimated there will be a total of 4,600 truck load trips during the site preparation, rough grading, and fine grading stages. This equates to 153 truckload trips per day over the 30-day period. This translates to 459 passenger-car equivalent trips per day, assuming all heavy vehicles are 4 axles. This is greater than the estimated proposed project daily trips (310 daily trips) by 149 daily trips.

PlaceWorks models hauling trucks as heavy heavy duty trucks (HHDT) in CalEEMOD, which are all 4+ axle trucks. To be conservative, we are assuming all construction traffic during this peak period will be 4 axles. The Draft EIR states that likely haul route is SR-73 (north of Bison) and they would access the site via Jamboree Road or MacArthur Boulevard.

Construction traffic would occur during the AM peak hour and potentially affect 10 study intersections (five along Jamboree Road and five along MacArthur Boulevard/San Joaquin Hills Road).

Typically, the peak hour is approximately 10% of the daily traffic volumes. Potentially, there would be 15 additional trips along the haul routes during the AM peak hour.

The 10 study intersections operate at acceptable levels of service under all scenarios identified in the OCMA Residential Project Traffic Impact Analysis prepared by DKS Associates (April 29, 2016). The roadways and intersections will be able to handle the additional construction traffic volumes without making the intersection levels of service deficient. The increase in V/C is nominal.

The peak construction traffic is a temporary situation and limited to 30 days. A construction management plan is required as part of the development to address any short-term queue at the project site.