LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Keats Street

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Keats Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU15

Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	20	20	1600	0.013 *	0	20	1600	0.013 *	0	0	0	0	0.000 *	20	20	1600	0.013 *	0	20	1600	0.013 *
NB Thru	1354	4800	0.287	58	1412	4800	0.299	0	1412	4800	0.299	55	193	1602	4800	0.339	58	1660	4800	0.351	0	1660	4800	0.351
NB Right	24	0	0.000	0	24	0	0.000	0	24	0	0.000	1	0	25	0	0.000	0	25	0	0.000	0	25	0	0.000
SB Left [3]	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002	0	0	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002
SB Thru	2511	4800	0.523 *	48	2559	4800	0.533 *	0	2559	4800	0.533 *	102	242	2855	4800	0.595 *	48	2903	4800	0.605 *	0	2903	4800	0.605 *
SB Right	0	0	0.000	16	16	1600	0.010	0	16	1600	0.010	0	0	0	0	0.000	16	16	1600	0.010	0	16	1600	0.010
EB Left	0	0	0.000 *	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000 *	0	0	0	0.000	0	0	0	0.000
EB Thru	0	0	0.000	0	0	1600	0.093 *	0	0	1600	0.093 *	0	0	0	0	0.000	0	0	1600	0.093 *	0	0	1600	0.093 *
EB Right	0	0	0.000	148	148	0	0.000	0	148	0	0.000	0	0	0	0	0.000	148	148	0	0.000	0	148	0	0.000
WB Left	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	1600	0.033 *	0	0	1600	0.033	0	0	1600	0.033	0	0	0	1600	0.034 *	0	0	1600	0.034	0	0	1600	0.034
WB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	2	0	54	0	0.000	0	54	0	0.000	0	54	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.656				0.738				0.738					0.729				0.810				0.810
LOS			B				C				C					C				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	39	2943	6	34	954
Future Vol, veh/h	0	39	2943	6	34	954
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	3034	6	35	984

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3501	1520	0	0	3040	0
Stage 1	3037	-	-	-	-	-
Stage 2	464	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	14	92	-	-	36	-
Stage 1	12	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	92	-	-	36	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	12	-	-	-	-	-
Stage 2	15	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	71.5	0	10.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	92	36	-
HCM Lane V/C Ratio	-	-	0.437	0.974	-
HCM Control Delay (s)	-	-	71.5	$ 308.5	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	1.8	3.6	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	7	50	1297	17	58	2447
Future Vol, veh/h	7	50	1297	17	58	2447
Conflicting Peds, #/hr	0	0	0	14	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	51	1323	17	59	2497

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2449	670	0	0	1341	0
Stage 1	1332	-	-	-	-	-
Stage 2	1117	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	53	343	-	-	267	-
Stage 1	151	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	41	343	-	-	267	-
Mov Cap-2 Maneuver	41	-	-	-	-	-
Stage 1	151	-	-	-	-	-
Stage 2	190	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.3	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	180	267	-
HCM Lane V/C Ratio	-	-	0.323	0.222	-
HCM Control Delay (s)	-	-	34.3	22.3	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.3	0.8	-

Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	39	3075	6	9	34	969
Future Vol, veh/h	0	39	3075	6	9	34	969
Conflicting Peds, #/hr	0	0	0	4	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	40	3170	6	9	35	999

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	3661	1588	0	0	2359	3176	0
Stage 1	3173	-	-	-	-	-	-
Stage 2	488	-	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.64	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	2.32	3.12	-
Pot Cap-1 Maneuver	11	83	-	-	75	~ 31	-
Stage 1	9	-	-	-	-	-	-
Stage 2	532	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	11	83	-	-	33	~ 33	-
Mov Cap-2 Maneuver	11	-	-	-	-	-	-
Stage 1	9	-	-	-	-	-	-
Stage 2	530	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	83.7	0	20
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	83	~ 33	-
HCM Lane V/C Ratio	-	-	0.484	1.343	-
HCM Control Delay (s)	-	-	83.7	$ 470.2	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	2	4.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	7	50	1313	17	62	58	2574
Future Vol, veh/h	7	50	1313	17	62	58	2574
Conflicting Peds, #/hr	0	0	0	14	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	7	51	1340	17	63	59	2627

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	2644	679	0	0	1042	1357	0
Stage 1	1348	-	-	-	-	-	-
Stage 2	1296	-	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.64	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	2.32	3.12	-
Pot Cap-1 Maneuver	42	338	-	-	416	262	-
Stage 1	147	-	-	-	-	-	-
Stage 2	197	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	42	338	-	-	303	303	-
Mov Cap-2 Maneuver	42	-	-	-	-	-	-
Stage 1	147	-	-	-	-	-	-
Stage 2	195	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34	0	1.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	181	303	-
HCM Lane V/C Ratio	-	-	0.321	0.404	-
HCM Control Delay (s)	-	-	34	24.7	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.3	1.9	-

Intersection	
Int Delay, s/veh	9.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	43	3214	6	39	1112
Future Vol, veh/h	5	43	3214	6	39	1112
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	44	3313	6	40	1146

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3855	1660	0	0	3320	0
Stage 1	3316	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	8	74	-	-	~ 26	-
Stage 1	8	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	8	74	-	-	~ 26	-
Mov Cap-2 Maneuver	8	-	-	-	-	-
Stage 1	8	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 378.5	0	20.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	40	~ 26	-
HCM Lane V/C Ratio	-	-	1.237	1.546	-
HCM Control Delay (s)	-	-	$ 378.5	$ 600.3	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	4.9	4.9	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	24	60	1535	18	69	2779
Future Vol, veh/h	24	60	1535	18	69	2779
Conflicting Peds, #/hr	0	0	0	14	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	61	1566	18	70	2836

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2851	792	0	0	1585	0
Stage 1	1576	-	-	-	-	-
Stage 2	1275	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	32	285	-	-	202	-
Stage 1	106	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 21	285	-	-	202	-
Mov Cap-2 Maneuver	~ 21	-	-	-	-	-
Stage 1	106	-	-	-	-	-
Stage 2	130	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 357.8	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	62	202	-
HCM Lane V/C Ratio	-	-	1.382	0.349	-
HCM Control Delay (s)	-	-	$ 357.8	32.1	-
HCM Lane LOS	-	-	F	D	-
HCM 95th %tile Q(veh)	-	-	7.3	1.5	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	15.1

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	5	43	3346	6	9	39	1127
Future Vol, veh/h	5	43	3346	6	9	39	1127
Conflicting Peds, #/hr	0	0	0	4	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	5	44	3449	6	9	40	1162

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	4017	1728	0	0	2567	3456	0
Stage 1	3453	-	-	-	-	-	-
Stage 2	564	-	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.64	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	2.32	3.12	-
Pot Cap-1 Maneuver	7	66	-	-	57	~ 22	-
Stage 1	6	-	-	-	-	-	-
Stage 2	486	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	7	66	-	-	22	~ 22	-
Mov Cap-2 Maneuver	7	-	-	-	-	-	-
Stage 1	6	-	-	-	-	-	-
Stage 2	484	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 473.2	0	39.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	35	~ 22	-
HCM Lane V/C Ratio	-	-	1.414	2.249	-
HCM Control Delay (s)	-	-	$ 473.2	$ 968.6	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	5.3	6.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	24	60	1551	18	62	69	2906
Future Vol, veh/h	24	60	1551	18	62	69	2906
Conflicting Peds, #/hr	0	0	0	14	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	24	61	1583	18	63	70	2965

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	3045	801	0	0	1230	1601	0
Stage 1	1592	-	-	-	-	-	-
Stage 2	1453	-	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.64	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	2.32	3.12	-
Pot Cap-1 Maneuver	25	281	-	-	327	199	-
Stage 1	104	-	-	-	-	-	-
Stage 2	161	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	25	281	-	-	223	223	-
Mov Cap-2 Maneuver	25	-	-	-	-	-	-
Stage 1	104	-	-	-	-	-	-
Stage 2	159	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	267	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	72	223	-
HCM Lane V/C Ratio	-	-	1.19	0.599	-
HCM Control Delay (s)	-	-	267	42.8	-
HCM Lane LOS	-	-	F	E	-
HCM 95th %tile Q(veh)	-	-	6.6	3.4	-

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Peak hr: AM
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Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	46	1600	0.029	0	46	1600	0.029	0	46	1600	0.029	2	0	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030
NB Thru	2299	4800	0.479 *	76	2375	4800	0.495 *	0	2375	4800	0.495 *	93	105	2497	4800	0.520 *	76	2573	4800	0.536 *	0	2573	4800	0.536 *
NB Right	154	1600	0.096	0	154	1600	0.096	0	154	1600	0.096	6	42	202	1600	0.126	0	202	1600	0.126	0	202	1600	0.126
SB Left	176	2880	0.061 *	7	183	2880	0.064 *	0	183	2880	0.064 *	7	29	212	2880	0.074 *	7	219	2880	0.076 *	0	219	2880	0.076 *
SB Thru	706	4800	0.156	7	713	4800	0.158	0	713	4800	0.158	29	88	823	4800	0.182	7	830	4800	0.184	0	830	4800	0.184
SB Right	45	0	0.000	1	46	0	0.000	0	46	0	0.000	2	4	51	0	0.000	1	52	0	0.000	0	52	0	0.000
EB Left	92	1600	0.058 *	0	92	1600	0.058 *	0	92	1600	0.058 *	4	9	105	1600	0.066 *	0	105	1600	0.066 *	0	105	1600	0.066 *
EB Thru	363	3200	0.135	0	363	3200	0.135	0	363	3200	0.135	15	19	397	3200	0.147	0	397	3200	0.147	0	397	3200	0.147
EB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	3	0	72	0	0.000	0	72	0	0.000	0	72	0	0.000
WB Left	282	2880	0.098	0	282	2880	0.098	0	282	2880	0.098	11	61	354	2880	0.123	0	354	2880	0.123	0	354	2880	0.123
WB Thru	506	3200	0.158	0	506	3200	0.158	0	506	3200	0.158	21	28	555	3200	0.173	0	555	3200	0.173	0	555	3200	0.173
WB Right [3]	592	1600	0.309 *	55	647	1600	0.341 *	0	647	1600	0.341 *	24	44	660	1600	0.339 *	55	715	1600	0.371 *	0	715	1600	0.371 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.006				1.057				1.057					1.098				1.149				1.149
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Gould Avenue-Artesia Boulevard

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Gould Avenue-Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: PM
Annual Growth: 1.00%

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

Combined Project

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	0	40	1600	0.025 *	0	40	1600	0.025 *	2	0	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *
NB Thru	993	4800	0.207	9	1002	4800	0.209	0	1002	4800	0.209	40	140	1173	4800	0.244	9	1182	4800	0.246	0	1182	4800	0.246
NB Right	265	1600	0.166	0	265	1600	0.166	0	265	1600	0.166	11	109	385	1600	0.241	0	385	1600	0.241	0	385	1600	0.241
SB Left	481	2880	0.167	50	531	2880	0.184	0	531	2880	0.184	20	58	559	2880	0.194	50	609	2880	0.211	0	609	2880	0.211
SB Thru	1893	4800	0.408 *	68	1961	4800	0.424 *	0	1961	4800	0.424 *	77	177	2147	4800	0.465 *	68	2215	4800	0.481 *	0	2215	4800	0.481 *
SB Right	66	0	0.000	10	76	0	0.000	0	76	0	0.000	3	14	83	0	0.000	10	93	0	0.000	0	93	0	0.000
EB Left	67	1600	0.042	0	67	1600	0.042	0	67	1600	0.042	3	15	85	1600	0.053	0	85	1600	0.053	0	85	1600	0.053
EB Thru	404	3200	0.143 *	0	404	3200	0.143 *	0	404	3200	0.143 *	16	45	465	3200	0.163 *	0	465	3200	0.163 *	0	465	3200	0.163 *
EB Right	53	0	0.000	0	53	0	0.000	0	53	0	0.000	2	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
WB Left	268	2880	0.093 *	0	268	2880	0.093 *	0	268	2880	0.093 *	11	107	386	2880	0.134 *	0	386	2880	0.134 *	0	386	2880	0.134 *
WB Thru	346	3200	0.108	0	346	3200	0.108	0	346	3200	0.108	14	39	399	3200	0.125	0	399	3200	0.125	0	399	3200	0.125
WB Right [3]	274	1600	0.004	6	280	1600	0.000	0	280	1600	0.000	11	48	333	1600	0.014	6	339	1600	0.000	0	339	1600	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.769				0.785				0.785					0.887				0.904				0.904
LOS			C				C				C					D				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 21st Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU18

Pacific Coast Highway @ 21st Street
Peak hr: AM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	42	1600	0.026	0	42	1600	0.026	0	42	1600	0.026	2	0	44	1600	0.028	0	44	1600	0.028	0	44	1600	0.028
NB Thru	2477	4800	0.523 *	76	2553	4800	0.539 *	0	2553	4800	0.539 *	101	147	2725	4800	0.575 *	76	2801	4800	0.591 *	0	2801	4800	0.591 *
NB Right	33	0	0.000	0	33	0	0.000	0	33	0	0.000	1	0	34	0	0.000	0	34	0	0.000	0	34	0	0.000
SB Left	20	1600	0.013 *	0	20	1600	0.013 *	0	20	1600	0.013 *	1	5	26	1600	0.016 *	0	26	1600	0.016 *	0	26	1600	0.016 *
SB Thru	897	4800	0.190	7	904	4800	0.191	0	904	4800	0.191	36	145	1078	4800	0.228	7	1085	4800	0.229	0	1085	4800	0.229
SB Right	14	0	0.000	0	14	0	0.000	0	14	0	0.000	1	0	15	0	0.000	0	15	0	0.000	0	15	0	0.000
EB Left	54	0	0.034 *	0	54	0	0.034 *	0	54	0	0.034 *	2	0	56	0	0.035 *	0	56	0	0.035 *	0	56	0	0.035 *
EB Thru	84	1600	0.094	0	84	1600	0.094	0	84	1600	0.094	3	0	87	1600	0.098	0	87	1600	0.098	0	87	1600	0.098
EB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
WB Left	75	0	0.047	0	75	0	0.047	0	75	0	0.047	3	0	78	0	0.049	0	78	0	0.049	0	78	0	0.049
WB Thru	92	1600	0.144 *	0	92	1600	0.144 *	0	92	1600	0.144 *	4	0	96	1600	0.154 *	0	96	1600	0.154 *	0	96	1600	0.154 *
WB Right	63	0	0.000	0	63	0	0.000	0	63	0	0.000	3	6	72	0	0.000	0	72	0	0.000	0	72	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.813				0.829				0.829					0.880				0.896				0.896
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Pacific Coast Highway @ 21st Street

N-S St: Pacific Coast Highway
E-W St: 21st Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU18

Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	31	1600	0.019 *	0	31	1600	0.019 *	0	31	1600	0.019 *	1	0	32	1600	0.020 *	0	32	1600	0.020 *	0	32	1600	0.020 *
NB Thru	1245	4800	0.265	9	1254	4800	0.266	0	1254	4800	0.266	51	240	1536	4800	0.325	9	1545	4800	0.327	0	1545	4800	0.327
NB Right	25	0	0.000	0	25	0	0.000	0	25	0	0.000	1	0	26	0	0.000	0	26	0	0.000	0	26	0	0.000
SB Left	74	1600	0.046	0	74	1600	0.046	0	74	1600	0.046	3	20	97	1600	0.061	0	97	1600	0.061	0	97	1600	0.061
SB Thru	2074	4800	0.448 *	68	2142	4800	0.462 *	0	2142	4800	0.462 *	84	270	2428	4800	0.522 *	68	2496	4800	0.536 *	0	2496	4800	0.536 *
SB Right	76	0	0.000	0	76	0	0.000	0	76	0	0.000	3	0	79	0	0.000	0	79	0	0.000	0	79	0	0.000
EB Left	21	0	0.013 *	0	21	0	0.013 *	0	21	0	0.013 *	1	0	22	0	0.014 *	0	22	0	0.014 *	0	22	0	0.014 *
EB Thru	47	1600	0.051	0	47	1600	0.051	0	47	1600	0.051	2	0	49	1600	0.053	0	49	1600	0.053	0	49	1600	0.053
EB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
WB Left	33	0	0.021	0	33	0	0.021	0	33	0	0.021	1	0	34	0	0.021	0	34	0	0.021	0	34	0	0.021
WB Thru	56	1600	0.081 *	0	56	1600	0.081 *	0	56	1600	0.081 *	2	0	58	1600	0.099 *	0	58	1600	0.099 *	0	58	1600	0.099 *
WB Right	41	0	0.000	0	41	0	0.000	0	41	0	0.000	2	23	66	0	0.000	0	66	0	0.000	0	66	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.662				0.676				0.676					0.755				0.769				0.769
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 16th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU19

Pacific Coast Highway @ 16th Street
Peak hr: AM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044	3	0	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046
NB Thru	2311	4800	0.488 *	76	2387	4800	0.504 *	0	2387	4800	0.504 *	94	147	2552	4800	0.538 *	76	2628	4800	0.554 *	0	2628	4800	0.554 *
NB Right	30	0	0.000	0	30	0	0.000	0	30	0	0.000	1	0	31	0	0.000	0	31	0	0.000	0	31	0	0.000
SB Left	7	1600	0.004 *	0	7	1600	0.004 *	0	7	1600	0.004 *	0	0	7	1600	0.004 *	0	7	1600	0.004 *	0	7	1600	0.004 *
SB Thru	813	4800	0.169	7	820	4800	0.171	0	820	4800	0.171	33	145	991	4800	0.206	7	998	4800	0.208	0	998	4800	0.208
SB Right	159	1600	0.099	0	159	1600	0.099	0	159	1600	0.099	6	0	165	1600	0.103	0	165	1600	0.103	0	165	1600	0.103
EB Left [3]	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	3	0	82	1600	0.051 *	0	82	1600	0.051 *	0	82	1600	0.051 *
EB Thru [3]	2	0	0.000	0	2	0	0.000	0	2	0	0.000	0	0	2	0	0.000	0	2	0	0.000	0	2	0	0.000
EB Right [3]	52	1600	0.033	0	52	1600	0.033	0	52	1600	0.033	2	0	54	1600	0.034	0	54	1600	0.034	0	54	1600	0.034
WB Left [3]	29	0	0.018	0	29	0	0.018	0	29	0	0.018	1	0	30	0	0.019	0	30	0	0.019	0	30	0	0.019
WB Thru [3]	2	1600	0.035 *	0	2	1600	0.035 *	0	2	1600	0.035 *	0	0	2	1600	0.036 *	0	2	1600	0.036 *	0	2	1600	0.036 *
WB Right [3]	25	0	0.000	0	25	0	0.000	0	25	0	0.000	1	0	26	0	0.000	0	26	0	0.000	0	26	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.676				0.692				0.692					0.730				0.746				0.746
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Split-phase operation.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 16th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU19

Pacific Coast Highway @ 16th Street
Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	89	1600	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *	4	0	93	1600	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *
NB Thru	1026	4800	0.218	9	1035	4800	0.220	0	1035	4800	0.220	42	240	1308	4800	0.277	9	1317	4800	0.279	0	1317	4800	0.279
NB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
SB Left	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003	0	0	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003
SB Thru	1884	4800	0.393 *	68	1952	4800	0.407 *	0	1952	4800	0.407 *	76	270	2230	4800	0.465 *	68	2298	4800	0.479 *	0	2298	4800	0.479 *
SB Right	271	1600	0.169	0	271	1600	0.169	0	271	1600	0.169	11	0	282	1600	0.176	0	282	1600	0.176	0	282	1600	0.176
EB Left [3]	167	1600	0.104 *	0	167	1600	0.104 *	0	167	1600	0.104 *	7	0	174	1600	0.109 *	0	174	1600	0.109 *	0	174	1600	0.109 *
EB Thru [3]	4	0	0.000	0	4	0	0.000	0	4	0	0.000	0	0	4	0	0.000	0	4	0	0.000	0	4	0	0.000
EB Right [3]	112	1600	0.070	0	112	1600	0.070	0	112	1600	0.070	5	0	117	1600	0.073	0	117	1600	0.073	0	117	1600	0.073
WB Left [3]	27	0	0.017	0	27	0	0.017	0	27	0	0.017	1	0	28	0	0.018	0	28	0	0.018	0	28	0	0.018
WB Thru [3]	0	1600	0.019 *	0	0	1600	0.019 *	0	0	1600	0.019 *	0	0	0	1600	0.020 *	0	0	1600	0.020 *	0	0	1600	0.020 *
WB Right [3]	4	0	0.000	0	4	0	0.000	0	4	0	0.000	0	0	4	0	0.000	0	4	0	0.000	0	4	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.672				0.686				0.686					0.751				0.766				0.766
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Split-phase operation.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: Pier Avenue-14th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU20

Pacific Coast Highway @ Pier Avenue-14th Street
Peak hr: AM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	329	2880	0.114	0	329	2880	0.114	0	329	2880	0.114	13	19	361	2880	0.125	0	361	2880	0.125	0	361	2880	0.125
NB Thru	2247	4800	0.470 *	71	2318	4800	0.485 *	0	2318	4800	0.485 *	91	134	2472	4800	0.517 *	71	2543	4800	0.532 *	0	2543	4800	0.532 *
NB Right	9	0	0.000	0	9	0	0.000	0	9	0	0.000	0	0	9	0	0.000	0	9	0	0.000	0	9	0	0.000
SB Left	0	1600	0.000 *	0	0	1600	0.000 *	0	0	1600	0.000 *	0	0	0	1600	0.000 *	0	0	1600	0.000 *	0	0	1600	0.000 *
SB Thru	809	4800	0.195	6	815	4800	0.196	0	815	4800	0.196	33	126	968	4800	0.233	6	974	4800	0.235	0	974	4800	0.235
SB Right	126	0	0.000	1	127	0	0.000	0	127	0	0.000	5	20	151	0	0.000	1	152	0	0.000	0	152	0	0.000
EB Left	247	2880	0.086 *	6	253	2880	0.088 *	0	253	2880	0.088 *	10	13	270	2880	0.094 *	6	276	2880	0.096 *	0	276	2880	0.096 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right [3,4]	186	1600	0.002	0	186	1600	0.002	0	186	1600	0.002	8	12	206	1600	0.003	0	206	1600	0.003	0	206	1600	0.003
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right [4]	3	1600	0.002 *	0	3	1600	0.002 *	0	3	1600	0.002 *	0	0	3	1600	0.002 *	0	3	1600	0.002 *	0	3	1600	0.002 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.658				0.675				0.675					0.713				0.729				0.729
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The eastbound right-turn lane has an overlapping phase with northbound left-turn phase.
4 No right-turn on red 6-9 AM and 3-7 PM.

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INTERSECTION CAPACITY UTILIZATION

Pacific Coast Highway @ Pier Avenue-14th Street

N-S St: Pacific Coast Highway
E-W St: Pier Avenue-14th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU20

Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	331	2880	0.115 *	0	331	2880	0.115 *	0	331	2880	0.115 *	13	17	361	2880	0.125 *	0	361	2880	0.125 *	0	361	2880	0.125 *
NB Thru	971	4800	0.205	9	980	4800	0.207	0	980	4800	0.207	39	219	1229	4800	0.259	9	1238	4800	0.261	0	1238	4800	0.261
NB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
SB Left	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003	0	0	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003
SB Thru	1846	4800	0.414 *	62	1908	4800	0.428 *	0	1908	4800	0.428 *	75	251	2172	4800	0.488 *	62	2234	4800	0.502 *	0	2234	4800	0.502 *
SB Right	143	0	0.000	5	148	0	0.000	0	148	0	0.000	6	20	169	0	0.000	5	174	0	0.000	0	174	0	0.000
EB Left	189	2880	0.066 *	1	190	2880	0.066 *	0	190	2880	0.066 *	8	21	218	2880	0.076 *	1	219	2880	0.076 *	0	219	2880	0.076 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right [3,4]	286	1600	0.064	0	286	1600	0.064	0	286	1600	0.064	12	18	316	1600	0.072	0	316	1600	0.072	0	316	1600	0.072
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right [4]	20	1600	0.013 *	0	20	1600	0.013 *	0	20	1600	0.013 *	1	0	21	1600	0.013 *	0	21	1600	0.013 *	0	21	1600	0.013 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.707				0.722				0.722					0.802				0.816				0.816
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The eastbound right-turn lane has an overlapping phase with northbound left-turn phase.
4 No right-turn on red 6-9 AM and 3-7 PM.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: Aviation Boulevard-10th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU21

Pacific Coast Highway @ Aviation Boulevard-10th Street
Peak hr: AM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	5	1600	0.003	0	5	1600	0.003	0	5	1600	0.003	0	0	5	1600	0.003	0	5	1600	0.003	0	5	1600	0.003
NB Thru	2363	4800	0.492 *	71	2434	4800	0.507 *	0	2434	4800	0.507 *	96	145	2604	4800	0.543 *	71	2675	4800	0.557 *	0	2675	4800	0.557 *
NB Right	767	1600	0.479	0	767	1600	0.479	0	767	1600	0.479	31	16	814	1600	0.509	0	814	1600	0.509	0	814	1600	0.509
SB Left	179	1600	0.112 *	0	179	1600	0.112 *	0	179	1600	0.112 *	7	5	191	1600	0.119 *	0	191	1600	0.119 *	0	191	1600	0.119 *
SB Thru	686	4800	0.143	6	692	4800	0.144	0	692	4800	0.144	28	133	847	4800	0.177	6	853	4800	0.178	0	853	4800	0.178
SB Right	1	0	0.000	0	1	0	0.000	0	1	0	0.000	0	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000
EB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *	0	0	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *
WB Left	655	0	0.205 *	0	655	0	0.205 *	0	655	0	0.205 *	27	20	702	0	0.219 *	0	702	0	0.219 *	0	702	0	0.219 *
WB Thru	1	3200	0.205	0	1	3200	0.205	0	1	3200	0.205	0	0	1	3200	0.220	0	1	3200	0.220	0	1	3200	0.220
WB Right [3,4]	296	1600	0.073	0	296	1600	0.073	0	296	1600	0.073	12	8	316	1600	0.078	0	316	1600	0.078	0	316	1600	0.078
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.912				0.927				0.927					0.984				0.999				0.999
LOS			E				E				E					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
4 No right-turn on red.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: Aviation Boulevard-10th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU21

Pacific Coast Highway @ Aviation Boulevard-10th Street
Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006	0	0	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006
NB Thru	1004	4800	0.209	9	1013	4800	0.211	0	1013	4800	0.211	41	229	1274	4800	0.265	9	1283	4800	0.267	0	1283	4800	0.267
NB Right	564	1600	0.353 *	0	564	1600	0.353 *	0	564	1600	0.353 *	23	39	626	1600	0.391 *	0	626	1600	0.391 *	0	626	1600	0.391 *
SB Left	291	1600	0.182 *	0	291	1600	0.182 *	0	291	1600	0.182 *	12	7	310	1600	0.194 *	0	310	1600	0.194 *	0	310	1600	0.194 *
SB Thru	1839	4800	0.383	62	1901	4800	0.396	0	1901	4800	0.396	75	262	2176	4800	0.453	62	2238	4800	0.466	0	2238	4800	0.466
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right	1	1600	0.001	0	1	1600	0.001	0	1	1600	0.001	0	0	1	1600	0.001	0	1	1600	0.001	0	1	1600	0.001
WB Left	622	0	0.194	0	622	0	0.194	0	622	0	0.194	25	35	682	0	0.213	0	682	0	0.213	0	682	0	0.213
WB Thru	18	3200	0.200 *	0	18	3200	0.200 *	0	18	3200	0.200 *	1	0	19	3200	0.219 *	0	19	3200	0.219 *	0	19	3200	0.219 *
WB Right [3,4]	244	1600	0.000	0	244	1600	0.000	0	244	1600	0.000	10	7	261	1600	0.000	0	261	1600	0.000	0	261	1600	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.834				0.834				0.834					0.904				0.904				0.904
LOS			D				D				D					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
4 No right-turn on red.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Prospect Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU22

Prospect Avenue @ Artesia Boulevard
Peak hr: AM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	179	0	0.112 *	6	185	0	0.116 *	0	185	0	0.116 *	7	3	189	0	0.118 *	6	195	0	0.122 *	0	195	0	0.122 *
NB Thru	76	1600	0.159	0	76	1600	0.163	0	76	1600	0.163	3	0	79	1600	0.168	0	79	1600	0.171	0	79	1600	0.171
NB Right	224	1600	0.140	0	224	1600	0.140	0	224	1600	0.140	9	5	238	1600	0.149	0	238	1600	0.149	0	238	1600	0.149
SB Left	27	0	0.017	0	27	0	0.017	0	27	0	0.017	1	5	33	0	0.021	0	33	0	0.021	0	33	0	0.021
SB Thru	49	1600	0.075 *	0	49	1600	0.075 *	0	49	1600	0.075 *	2	2	53	1600	0.083 *	0	53	1600	0.083 *	0	53	1600	0.083 *
SB Right	44	0	0.000	0	44	0	0.000	0	44	0	0.000	2	0	46	0	0.000	0	46	0	0.000	0	46	0	0.000
EB Left	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *	2	0	44	1600	0.028 *	0	44	1600	0.028 *	0	44	1600	0.028 *
EB Thru	655	3200	0.241	5	660	3200	0.243	0	660	3200	0.243	27	89	771	3200	0.279	5	776	3200	0.281	0	776	3200	0.281
EB Right	116	0	0.000	1	117	0	0.000	0	117	0	0.000	5	0	121	0	0.000	1	122	0	0.000	0	122	0	0.000
WB Left	125	1600	0.078	0	125	1600	0.078	0	125	1600	0.078	5	6	136	1600	0.085	0	136	1600	0.085	0	136	1600	0.085
WB Thru	1151	3200	0.386 *	51	1202	3200	0.402 *	0	1202	3200	0.402 *	47	140	1338	3200	0.445 *	51	1389	3200	0.461 *	0	1389	3200	0.461 *
WB Right	83	0	0.000	0	83	0	0.000	0	83	0	0.000	3	0	86	0	0.000	0	86	0	0.000	0	86	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.699				0.718				0.718					0.773				0.793				0.793
LOS			B				C				C					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Prospect Avenue @ Artesia Boulevard

N-S St: Prospect Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU22

Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	98	0	0.061 *	1	99	0	0.062 *	0	99	0	0.062 *	4	6	108	0	0.068 *	1	109	0	0.068 *	0	109	0	0.068 *
NB Thru	40	1600	0.086	0	40	1600	0.087	0	40	1600	0.087	2	0	42	1600	0.094	0	42	1600	0.094	0	42	1600	0.094
NB Right	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033	2	20	75	1600	0.047	0	75	1600	0.047	0	75	1600	0.047
SB Left	50	0	0.031	0	50	0	0.031	0	50	0	0.031	2	17	69	0	0.043	0	69	0	0.043	0	69	0	0.043
SB Thru	97	1600	0.105 *	0	97	1600	0.105 *	0	97	1600	0.105 *	4	6	107	1600	0.124 *	0	107	1600	0.124 *	0	107	1600	0.124 *
SB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
EB Left	33	1600	0.021	0	33	1600	0.021	0	33	1600	0.021	1	0	34	1600	0.021	0	34	1600	0.021	0	34	1600	0.021
EB Thru	1072	3200	0.372 *	44	1116	3200	0.388 *	0	1116	3200	0.388 *	44	212	1328	3200	0.454 *	44	1372	3200	0.469 *	0	1372	3200	0.469 *
EB Right	119	0	0.000	5	124	0	0.000	0	124	0	0.000	5	0	124	0	0.000	5	129	0	0.000	0	129	0	0.000
WB Left	167	1600	0.104 *	0	167	1600	0.104 *	0	167	1600	0.104 *	7	23	197	1600	0.123 *	0	197	1600	0.123 *	0	197	1600	0.123 *
WB Thru	696	3200	0.229	6	702	3200	0.231	0	702	3200	0.231	28	210	934	3200	0.304	6	940	3200	0.306	0	940	3200	0.306
WB Right	38	0	0.000	0	38	0	0.000	0	38	0	0.000	2	0	40	0	0.000	0	40	0	0.000	0	40	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.743				0.759				0.759					0.868				0.884				0.884
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Prospect Avenue
E-W St: Aviation Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU23

Prospect Avenue @ Aviation Boulevard
Peak hr: AM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	85	1600	0.053	0	85	1600	0.053	0	85	1600	0.053	3	0	88	1600	0.055	0	88	1600	0.055	0	88	1600	0.055
NB Thru	262	1600	0.164	6	268	1600	0.168	0	268	1600	0.168	11	1	274	1600	0.171	6	280	1600	0.175	0	280	1600	0.175
NB Right	345	1600	0.216 *	0	345	1600	0.216 *	0	345	1600	0.216 *	14	0	359	1600	0.224 *	0	359	1600	0.224 *	0	359	1600	0.224 *
SB Left	45	1600	0.028 *	0	45	1600	0.028 *	0	45	1600	0.028 *	2	0	47	1600	0.029 *	0	47	1600	0.029 *	0	47	1600	0.029 *
SB Thru	132	1600	0.083	1	133	1600	0.083	0	133	1600	0.083	5	1	138	1600	0.086	1	139	1600	0.087	0	139	1600	0.087
SB Right	46	1600	0.029	0	46	1600	0.029	0	46	1600	0.029	2	0	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030
EB Left	68	1600	0.043	0	68	1600	0.043	0	68	1600	0.043	3	0	71	1600	0.044	0	71	1600	0.044	0	71	1600	0.044
EB Thru	765	3200	0.249 *	0	765	3200	0.249 *	0	765	3200	0.249 *	31	21	817	3200	0.266 *	0	817	3200	0.266 *	0	817	3200	0.266 *
EB Right	32	0	0.000	0	32	0	0.000	0	32	0	0.000	1	0	33	0	0.000	0	33	0	0.000	0	33	0	0.000
WB Left	164	1600	0.103 *	0	164	1600	0.103 *	0	164	1600	0.103 *	7	0	171	1600	0.107 *	0	171	1600	0.107 *	0	171	1600	0.107 *
WB Thru	755	3200	0.255	0	755	3200	0.255	0	755	3200	0.255	31	28	814	3200	0.274	0	814	3200	0.274	0	814	3200	0.274
WB Right	60	0	0.000	0	60	0	0.000	0	60	0	0.000	2	0	62	0	0.000	0	62	0	0.000	0	62	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.695				0.695				0.695					0.726				0.726				0.726
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Prospect Avenue @ Aviation Boulevard

N-S St: Prospect Avenue
E-W St: Aviation Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU23

Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	3	0	82	1600	0.051 *	0	82	1600	0.051 *	0	82	1600	0.051 *
NB Thru	178	1600	0.111	1	179	1600	0.112	0	179	1600	0.112	7	3	188	1600	0.118	1	189	1600	0.118	0	189	1600	0.118
NB Right	231	1600	0.144	0	231	1600	0.144	0	231	1600	0.144	9	0	240	1600	0.150	0	240	1600	0.150	0	240	1600	0.150
SB Left	119	1600	0.074	0	119	1600	0.074	0	119	1600	0.074	5	0	124	1600	0.078	0	124	1600	0.078	0	124	1600	0.078
SB Thru	276	1600	0.173 *	5	281	1600	0.176 *	0	281	1600	0.176 *	11	3	290	1600	0.181 *	5	295	1600	0.184 *	0	295	1600	0.184 *
SB Right	41	1600	0.026	0	41	1600	0.026	0	41	1600	0.026	2	0	43	1600	0.027	0	43	1600	0.027	0	43	1600	0.027
EB Left	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033	2	0	55	1600	0.034	0	55	1600	0.034	0	55	1600	0.034
EB Thru	736	3200	0.257 *	0	736	3200	0.257 *	0	736	3200	0.257 *	30	46	812	3200	0.282 *	0	812	3200	0.282 *	0	812	3200	0.282 *
EB Right	87	0	0.000	0	87	0	0.000	0	87	0	0.000	4	0	91	0	0.000	0	91	0	0.000	0	91	0	0.000
WB Left	286	1600	0.179 *	0	286	1600	0.179 *	0	286	1600	0.179 *	12	0	298	1600	0.186 *	0	298	1600	0.186 *	0	298	1600	0.186 *
WB Thru	763	3200	0.253	0	763	3200	0.253	0	763	3200	0.253	31	42	836	3200	0.276	0	836	3200	0.276	0	836	3200	0.276
WB Right	45	0	0.000	0	45	0	0.000	0	45	0	0.000	2	0	47	0	0.000	0	47	0	0.000	0	47	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.758				0.761				0.761					0.801				0.804				0.804
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Meadows Avenue @ Artesia Boulevard

N-S St: Meadows Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU24

Peak hr: AM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	74	0	0.046	0	74	0	0.046	0	74	0	0.046	3	0	77	0	0.048	0	77	0	0.048	0	77	0	0.048
SB Thru	0	1600	0.081 *	0	0	1600	0.081 *	0	0	1600	0.081 *	0	0	0	1600	0.084 *	0	0	1600	0.084 *	0	0	1600	0.084 *
SB Right	56	0	0.000	0	56	0	0.000	0	56	0	0.000	2	0	58	0	0.000	0	58	0	0.000	0	58	0	0.000
EB Left	99	1600	0.062 *	0	99	1600	0.062 *	0	99	1600	0.062 *	4	0	103	1600	0.064 *	0	103	1600	0.064 *	0	103	1600	0.064 *
EB Thru	835	3200	0.261	5	840	3200	0.263	0	840	3200	0.263	34	99	968	3200	0.303	5	973	3200	0.304	0	973	3200	0.304
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	1274	3200	0.447 *	51	1325	3200	0.463 *	0	1325	3200	0.463 *	52	145	1471	3200	0.511 *	51	1522	3200	0.527 *	0	1522	3200	0.527 *
WB Right	157	0	0.000	0	157	0	0.000	0	157	0	0.000	6	0	163	0	0.000	0	163	0	0.000	0	163	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.690				0.706				0.706					0.759				0.775				0.775
LOS			B				C				C					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Meadows Avenue @ Artesia Boulevard

N-S St: Meadows Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU24

Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/22/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	152	0	0.095	0	152	0	0.095	0	152	0	0.095	6	0	158	0	0.099	0	158	0	0.099	0	158	0	0.099
SB Thru	0	1600	0.153 *	0	0	1600	0.153 *	0	0	1600	0.153 *	0	0	0	1600	0.159 *	0	0	1600	0.159 *	0	0	1600	0.159 *
SB Right	92	0	0.000	0	92	0	0.000	0	92	0	0.000	4	0	96	0	0.000	0	96	0	0.000	0	96	0	0.000
EB Left	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044	3	0	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046
EB Thru	1176	3200	0.368 *	44	1220	3200	0.381 *	0	1220	3200	0.381 *	48	250	1474	3200	0.461 *	44	1518	3200	0.474 *	0	1518	3200	0.474 *
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	909	3200	0.313	6	915	3200	0.315	0	915	3200	0.315	37	233	1179	3200	0.398	6	1185	3200	0.400	0	1185	3200	0.400
WB Right	92	0	0.000	0	92	0	0.000	0	92	0	0.000	4	0	96	0	0.000	0	96	0	0.000	0	96	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.620				0.634				0.634					0.719				0.733				0.733
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Peck Avenue-Ford Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU25

Peck Avenue-Ford Avenue @ Artesia Boulevard
Peak hr: AM
Annual Growth: 1.00%

Combined Project

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	150	0	0.094	0	150	0	0.094	0	150	0	0.094	6	3	159	0	0.099	0	159	0	0.099	0	159	0	0.099
NB Thru	119	1600	0.174 *	0	119	1600	0.174 *	0	119	1600	0.174 *	5	0	124	1600	0.183 *	0	124	1600	0.183 *	0	124	1600	0.183 *
NB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
SB Left	81	0	0.051 *	0	81	0	0.051 *	0	81	0	0.051 *	3	14	98	0	0.061 *	0	98	0	0.061 *	0	98	0	0.061 *
SB Thru	24	1600	0.066	0	24	1600	0.066	0	24	1600	0.066	1	0	25	1600	0.077	0	25	1600	0.077	0	25	1600	0.077
SB Right	111	1600	0.069	0	111	1600	0.069	0	111	1600	0.069	5	0	116	1600	0.073	0	116	1600	0.073	0	116	1600	0.073
EB Left	145	1600	0.091 *	0	145	1600	0.091 *	0	145	1600	0.091 *	6	0	151	1600	0.094 *	0	151	1600	0.094 *	0	151	1600	0.094 *
EB Thru	699	3200	0.226	5	704	3200	0.228	0	704	3200	0.228	28	97	824	3200	0.266	5	829	3200	0.268	0	829	3200	0.268
EB Right	24	0	0.000	0	24	0	0.000	0	24	0	0.000	1	2	27	0	0.000	0	27	0	0.000	0	27	0	0.000
WB Left	26	1600	0.016	0	26	1600	0.016	0	26	1600	0.016	1	0	27	1600	0.017	0	27	1600	0.017	0	27	1600	0.017
WB Thru	1175	3200	0.397 *	51	1226	3200	0.413 *	0	1226	3200	0.413 *	48	142	1365	3200	0.464 *	51	1416	3200	0.480 *	0	1416	3200	0.480 *
WB Right	96	0	0.000	0	96	0	0.000	0	96	0	0.000	4	20	120	0	0.000	0	120	0	0.000	0	120	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.813				0.829				0.829					0.903				0.919				0.919
LOS			D				D				D					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Peck Avenue-Ford Avenue @ Artesia Boulevard

N-S St: Peck Avenue-Ford Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU25

Peak hr: PM
Annual Growth: 1.00%

Combined Project

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	55	0	0.034 *	0	55	0	0.034 *	0	55	0	0.034 *	2	6	63	0	0.039 *	0	63	0	0.039 *	0	63	0	0.039 *
NB Thru	34	1600	0.061	0	34	1600	0.061	0	34	1600	0.061	1	0	35	1600	0.066	0	35	1600	0.066	0	35	1600	0.066
NB Right	8	0	0.000	0	8	0	0.000	0	8	0	0.000	0	0	8	0	0.000	0	8	0	0.000	0	8	0	0.000
SB Left	51	0	0.032	0	51	0	0.032	0	51	0	0.032	2	38	91	0	0.057	0	91	0	0.057	0	91	0	0.057
SB Thru	44	1600	0.059 *	0	44	1600	0.059 *	0	44	1600	0.059 *	2	0	46	1600	0.086 *	0	46	1600	0.086 *	0	46	1600	0.086 *
SB Right	86	1600	0.054	0	86	1600	0.054	0	86	1600	0.054	3	0	89	1600	0.056	0	89	1600	0.056	0	89	1600	0.056
EB Left	81	1600	0.051	0	81	1600	0.051	0	81	1600	0.051	3	0	84	1600	0.053	0	84	1600	0.053	0	84	1600	0.053
EB Thru	1094	3200	0.368 *	44	1138	3200	0.381 *	0	1138	3200	0.381 *	44	244	1382	3200	0.460 *	44	1426	3200	0.474 *	0	1426	3200	0.474 *
EB Right	82	0	0.000	0	82	0	0.000	0	82	0	0.000	3	6	91	0	0.000	0	91	0	0.000	0	91	0	0.000
WB Left	62	1600	0.039 *	0	62	1600	0.039 *	0	62	1600	0.039 *	3	0	65	1600	0.041 *	0	65	1600	0.041 *	0	65	1600	0.041 *
WB Thru	846	3200	0.280	6	852	3200	0.282	0	852	3200	0.282	34	228	1108	3200	0.372	6	1114	3200	0.374	0	1114	3200	0.374
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	2	32	83	0	0.000	0	83	0	0.000	0	83	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.600				0.614				0.614					0.726				0.740				0.740
LOS			A				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

APPENDIX E-1

HERMOSA BEACH PROJECT ONLY
ICU AND LEVELS OF SERVICE EXPLANATION
HCM AND LEVELS OF SERVICE EXPLANATION
INTERSECTION LEVELS OF SERVICE DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing, The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics

Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

In the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board, 2000, level of service for unsignalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, in the absence of incidents, control, traffic, or geometric delay. Only the portion of total delay attributed to the traffic control measures, either traffic signals or stop signs, is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Level of Service criteria for unsignalized intersections are stated in terms of the average control delay per vehicle. The level of service is determined by the computed or measured control delay and is defined for each minor movement. Average control delay for any particular minor movement is a function of the service time for the approach and the degree of utilization. (Level of service is not defined for the intersection as a whole for two-way stop controlled intersections.)

Level of Service Criteria for TWSC/AWSC Intersections

Level of Service	Average Control Delay (Sec/Veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Level of Service (LOS) values are used to describe intersection operations with service levels varying from LOS A (free flow) to LOS F (jammed condition). The following descriptions summarize *HCM* criteria for each level of service:

LOS A describes operations with very low control delay, up to 10 seconds per vehicle.

LOS B describes operations with control delay greater than 10 and up to 15 seconds per vehicle.

LOS C describes operations with control delay greater than 15 and up to 25 seconds per vehicle.

LOS D describes operations with control delay greater than 25 and up to 35 seconds per vehicle.

LOS E describes operations with control delay greater than 35 and up to 50 seconds per vehicle.

LOS F describes operations with control delay in excess of 50 seconds per vehicle. For two-way stop controlled intersections, LOS F exists when there are insufficient gaps of suitable size to allow side-street demand to safely cross through a major-street traffic stream. This level of service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches.

Intersection	
Intersection Delay, s/veh	18.6
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	32	233	18	0	116	245	47	0	9	130	114
Future Vol, veh/h	0	32	233	18	0	116	245	47	0	9	130	114
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	259	20	0	129	272	52	0	10	144	127
Number of Lanes	0	0	1	1	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	20.3	19	17.5
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	4%	12%	0%	100%	0%	35%
Vol Thru, %	51%	88%	0%	0%	84%	59%
Vol Right, %	45%	0%	100%	0%	16%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	253	265	18	116	292	220
LT Vol	9	32	0	116	0	76
Through Vol	130	233	0	0	245	130
RT Vol	114	0	18	0	47	14
Lane Flow Rate	281	294	20	129	324	244
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.532	0.605	0.037	0.274	0.632	0.488
Departure Headway (Hd)	6.808	7.401	6.618	7.645	7.015	7.188
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	526	486	537	468	513	499
Service Time	4.893	5.187	4.404	5.429	4.799	5.278
HCM Lane V/C Ratio	0.534	0.605	0.037	0.276	0.632	0.489
HCM Control Delay	17.5	21	9.7	13.3	21.2	17
HCM Lane LOS	C	C	A	B	C	C
HCM 95th-tile Q	3.1	3.9	0.1	1.1	4.3	2.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	76	130	14
Future Vol, veh/h	0	76	130	14
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	84	144	16
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	17
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	27.1
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	17	257	24	0	116	239	39	0	21	89	82
Future Vol, veh/h	0	17	257	24	0	116	239	39	0	21	89	82
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	265	25	0	120	246	40	0	22	92	85
Number of Lanes	0	0	1	1	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	22.3	19.7	16.1
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	11%	6%	0%	100%	0%	20%
Vol Thru, %	46%	94%	0%	0%	86%	72%
Vol Right, %	43%	0%	100%	0%	14%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	192	274	24	116	278	437
LT Vol	21	17	0	116	0	89
Through Vol	89	257	0	0	239	313
RT Vol	82	0	24	0	39	35
Lane Flow Rate	198	282	25	120	287	451
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.419	0.626	0.05	0.276	0.613	0.876
Departure Headway (Hd)	7.618	7.982	7.225	8.322	7.702	7.001
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	471	452	495	432	467	518
Service Time	5.683	5.739	4.981	6.08	5.461	5.049
HCM Lane V/C Ratio	0.42	0.624	0.051	0.278	0.615	0.871
HCM Control Delay	16.1	23.3	10.4	14.2	22	41.8
HCM Lane LOS	C	C	B	B	C	E
HCM 95th-tile Q	2	4.2	0.2	1.1	4	9.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	89	313	35
Future Vol, veh/h	0	89	313	35
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	92	323	36
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	41.8
HCM LOS	E

Lane

Intersection	
Intersection Delay, s/veh	25.8
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	33	272	19	0	121	289	49	0	9	135	119
Future Vol, veh/h	0	33	272	19	0	121	289	49	0	9	135	119
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	37	302	21	0	134	321	54	0	10	150	132
Number of Lanes	0	0	1	1	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	29.5	28.3	21.6
HCM LOS	D	D	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	3%	11%	0%	100%	0%	34%
Vol Thru, %	51%	89%	0%	0%	86%	59%
Vol Right, %	45%	0%	100%	0%	14%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	305	19	121	338	229
LT Vol	9	33	0	121	0	79
Through Vol	135	272	0	0	289	135
RT Vol	119	0	19	0	49	15
Lane Flow Rate	292	339	21	134	376	254
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.608	0.746	0.042	0.305	0.788	0.559
Departure Headway (Hd)	7.495	7.924	7.144	8.18	7.558	7.905
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	479	454	500	438	477	455
Service Time	5.564	5.689	4.908	5.946	5.324	5.976
HCM Lane V/C Ratio	0.61	0.747	0.042	0.306	0.788	0.558
HCM Control Delay	21.6	30.7	10.2	14.5	33.2	20.6
HCM Lane LOS	C	D	B	B	D	C
HCM 95th-tile Q	4	6.2	0.1	1.3	7.1	3.4

HCM 2010 AWSC
1: Valley Dr & Gould Ave
Future with Hermosa Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	79	135	15
Future Vol, veh/h	0	79	135	15
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	88	150	17
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	20.6
HCM LOS	C

Lane

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Intersection	
Intersection Delay, s/veh	46.4
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	18	335	25	0	121	310	41	0	22	93	85
Future Vol, veh/h	0	18	335	25	0	121	310	41	0	22	93	85
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	345	26	0	125	320	42	0	23	96	88
Number of Lanes	0	0	1	1	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	44.1	35.6	20.2
HCM LOS	E	E	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	11%	5%	0%	100%	0%	20%
Vol Thru, %	47%	95%	0%	0%	88%	72%
Vol Right, %	42%	0%	100%	0%	12%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	200	353	25	121	351	455
LT Vol	22	18	0	121	0	93
Through Vol	93	335	0	0	310	326
RT Vol	85	0	25	0	41	36
Lane Flow Rate	206	364	26	125	362	469
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.499	0.867	0.056	0.312	0.844	1
Departure Headway (Hd)	8.715	8.576	7.82	9.003	8.396	8.019
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	412	426	460	403	434	455
Service Time	6.797	6.253	5.528	6.676	6.094	6.019
HCM Lane V/C Ratio	0.5	0.854	0.057	0.31	0.834	1.031
HCM Control Delay	20.2	46.4	11	15.7	42.5	71.1
HCM Lane LOS	C	E	B	C	E	F
HCM 95th-tile Q	2.7	8.7	0.2	1.3	8.2	13

HCM 2010 AWSC
1: Valley Dr & Gould Ave
Future with Hermosa Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	93	326	36
Future Vol, veh/h	0	93	326	36
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	96	336	37
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	71.1
HCM LOS	F

Lane

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Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	20	35	0	431	30	0	22	110
Future Vol, veh/h	0	20	35	0	431	30	0	22	110
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	474	33	0	24	121
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.5	12.9	8.7
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	36%	17%
Vol Thru, %	93%	0%	83%
Vol Right, %	7%	64%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	461	55	132
LT Vol	0	20	22
Through Vol	431	0	110
RT Vol	30	35	0
Lane Flow Rate	507	60	145
Geometry Grp	1	1	1
Degree of Util (X)	0.579	0.084	0.186
Departure Headway (Hd)	4.222	5.033	4.625
Convergence, Y/N	Yes	Yes	Yes
Cap	861	715	779
Service Time	2.222	3.042	2.636
HCM Lane V/C Ratio	0.589	0.084	0.186
HCM Control Delay	12.9	8.5	8.7
HCM Lane LOS	B	A	A
HCM 95th-tile Q	3.8	0.3	0.7

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	25	41	0	288	19	0	14	277
Future Vol, veh/h	0	25	41	0	288	19	0	14	277
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	44	0	306	20	0	15	295
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.6	10.3	10.3
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	38%	5%
Vol Thru, %	94%	0%	95%
Vol Right, %	6%	62%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	307	66	291
LT Vol	0	25	14
Through Vol	288	0	277
RT Vol	19	41	0
Lane Flow Rate	327	70	310
Geometry Grp	1	1	1
Degree of Util (X)	0.399	0.098	0.384
Departure Headway (Hd)	4.4	5.015	4.46
Convergence, Y/N	Yes	Yes	Yes
Cap	820	713	808
Service Time	2.426	3.058	2.486
HCM Lane V/C Ratio	0.399	0.098	0.384
HCM Control Delay	10.3	8.6	10.3
HCM Lane LOS	B	A	B
HCM 95th-tile Q	1.9	0.3	1.8

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	21	36	0	455	31	0	23	118
Future Vol, veh/h	0	21	36	0	455	31	0	23	118
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	40	0	500	34	0	25	130
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.7	14.1	8.9
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	37%	16%
Vol Thru, %	94%	0%	84%
Vol Right, %	6%	63%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	486	57	141
LT Vol	0	21	23
Through Vol	455	0	118
RT Vol	31	36	0
Lane Flow Rate	534	63	155
Geometry Grp	1	1	1
Degree of Util (X)	0.627	0.089	0.201
Departure Headway (Hd)	4.227	5.117	4.662
Convergence, Y/N	Yes	Yes	Yes
Cap	855	699	770
Service Time	2.246	3.156	2.688
HCM Lane V/C Ratio	0.625	0.09	0.201
HCM Control Delay	14.1	8.7	8.9
HCM Lane LOS	B	A	A
HCM 95th-tile Q	4.5	0.3	0.7

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	26	43	0	309	20	0	15	299
Future Vol, veh/h	0	26	43	0	309	20	0	15	299
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	46	0	329	21	0	16	318
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.8	10.8	10.7
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	38%	5%
Vol Thru, %	94%	0%	95%
Vol Right, %	6%	62%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	329	69	314
LT Vol	0	26	15
Through Vol	309	0	299
RT Vol	20	43	0
Lane Flow Rate	350	73	334
Geometry Grp	1	1	1
Degree of Util (X)	0.432	0.104	0.417
Departure Headway (Hd)	4.441	5.117	4.499
Convergence, Y/N	Yes	Yes	Yes
Cap	812	698	802
Service Time	2.468	3.167	2.528
HCM Lane V/C Ratio	0.431	0.105	0.416
HCM Control Delay	10.8	8.8	10.7
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2.2	0.3	2.1

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	13	15	0	431	24	0	28	110
Future Vol, veh/h	0	13	15	0	431	24	0	28	110
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	16	0	449	25	0	29	115
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	11.8	8.5
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	46%	20%
Vol Thru, %	95%	0%	80%
Vol Right, %	5%	54%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	455	28	138
LT Vol	0	13	28
Through Vol	431	0	110
RT Vol	24	15	0
Lane Flow Rate	474	29	144
Geometry Grp	1	1	1
Degree of Util (X)	0.535	0.041	0.18
Departure Headway (Hd)	4.062	5.026	4.504
Convergence, Y/N	Yes	Yes	Yes
Cap	877	715	801
Service Time	2.136	3.034	2.51
HCM Lane V/C Ratio	0.54	0.041	0.18
HCM Control Delay	11.8	8.2	8.5
HCM Lane LOS	B	A	A
HCM 95th-tile Q	3.2	0.1	0.7

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	14	12	0	305	19	0	13	296
Future Vol, veh/h	0	14	12	0	305	19	0	13	296
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	13	0	324	20	0	14	315
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.5	10.3	10.2
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	54%	4%
Vol Thru, %	94%	0%	96%
Vol Right, %	6%	46%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	324	26	309
LT Vol	0	14	13
Through Vol	305	0	296
RT Vol	19	12	0
Lane Flow Rate	345	28	329
Geometry Grp	1	1	1
Degree of Util (X)	0.412	0.04	0.398
Departure Headway (Hd)	4.301	5.199	4.357
Convergence, Y/N	Yes	Yes	Yes
Cap	838	688	828
Service Time	2.316	3.233	2.371
HCM Lane V/C Ratio	0.412	0.041	0.397
HCM Control Delay	10.3	8.5	10.2
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2	0.1	1.9

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	14	16	0	455	25	0	29	118
Future Vol, veh/h	0	14	16	0	455	25	0	29	118
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	17	0	474	26	0	30	123
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.3	12.4	8.6
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	47%	20%
Vol Thru, %	95%	0%	80%
Vol Right, %	5%	53%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	480	30	147
LT Vol	0	14	29
Through Vol	455	0	118
RT Vol	25	16	0
Lane Flow Rate	500	31	153
Geometry Grp	1	1	1
Degree of Util (X)	0.566	0.044	0.193
Departure Headway (Hd)	4.073	5.103	4.538
Convergence, Y/N	Yes	Yes	Yes
Cap	875	705	795
Service Time	2.154	3.113	2.542
HCM Lane V/C Ratio	0.571	0.044	0.192
HCM Control Delay	12.4	8.3	8.6
HCM Lane LOS	B	A	A
HCM 95th-tile Q	3.6	0.1	0.7

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	15	12	0	326	20	0	14	319
Future Vol, veh/h	0	15	12	0	326	20	0	14	319
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	13	0	347	21	0	15	339
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.6	10.8	10.7
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	56%	4%
Vol Thru, %	94%	0%	96%
Vol Right, %	6%	44%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	346	27	333
LT Vol	0	15	14
Through Vol	326	0	319
RT Vol	20	12	0
Lane Flow Rate	368	29	354
Geometry Grp	1	1	1
Degree of Util (X)	0.443	0.042	0.432
Departure Headway (Hd)	4.335	5.315	4.388
Convergence, Y/N	Yes	Yes	Yes
Cap	832	673	822
Service Time	2.349	3.355	2.402
HCM Lane V/C Ratio	0.442	0.043	0.431
HCM Control Delay	10.8	8.6	10.7
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2.3	0.1	2.2

Intersection	
Intersection Delay, s/veh	41.3
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	33	323	48	0	18	348	143	0	77	268	31
Future Vol, veh/h	0	33	323	48	0	18	348	143	0	77	268	31
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	35	344	51	0	19	370	152	0	82	285	33
Number of Lanes	0	0	1	0	0	0	2	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	65.7	17.7	55.2
HCM LOS	F	C	F

Lane	NBLn1	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	20%	8%	13%	0%	0%	47%
Vol Thru, %	71%	80%	87%	100%	0%	47%
Vol Right, %	8%	12%	0%	0%	100%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	376	404	134	232	143	131
LT Vol	77	33	18	0	0	62
Through Vol	268	323	116	232	0	61
RT Vol	31	48	0	0	143	8
Lane Flow Rate	400	430	143	247	152	139
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.923	0.975	0.331	0.568	0.319	0.368
Departure Headway (Hd)	8.31	8.17	8.349	8.28	7.555	9.507
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	436	443	429	434	475	378
Service Time	6.067	5.931	6.12	6.051	5.325	7.284
HCM Lane V/C Ratio	0.917	0.971	0.333	0.569	0.32	0.368
HCM Control Delay	55.2	65.7	15.2	21.5	13.9	17.8
HCM Lane LOS	F	F	C	C	B	C
HCM 95th-tile Q	10.3	12	1.4	3.4	1.4	1.7

HCM 2010 AWSC
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	62	61	8
Future Vol, veh/h	0	62	61	8
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	66	65	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	17.8
HCM LOS	C

Lane

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Intersection	
Intersection Delay, s/veh	39.6
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	25	350	57	0	29	321	123	0	58	176	32
Future Vol, veh/h	0	25	350	57	0	29	321	123	0	58	176	32
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	26	361	59	0	30	331	127	0	60	181	33
Number of Lanes	0	0	1	0	0	0	2	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	72.9	17.3	28.7
HCM LOS	F	C	D

Lane	NBLn1	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	22%	6%	21%	0%	0%	25%
Vol Thru, %	66%	81%	79%	100%	0%	72%
Vol Right, %	12%	13%	0%	0%	100%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	266	432	136	214	123	309
LT Vol	58	25	29	0	0	76
Through Vol	176	350	107	214	0	221
RT Vol	32	57	0	0	123	12
Lane Flow Rate	274	445	140	221	127	319
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.683	1	0.339	0.526	0.277	0.784
Departure Headway (Hd)	8.969	8.476	8.693	8.582	7.856	8.859
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	409	432	416	421	458	414
Service Time	6.6	6.176	6.401	6.294	5.592	6.489
HCM Lane V/C Ratio	0.67	1.03	0.337	0.525	0.277	0.771
HCM Control Delay	28.7	72.9	15.8	20.4	13.6	36.8
HCM Lane LOS	D	F	C	C	B	E
HCM 95th-tile Q	4.9	12.6	1.5	3	1.1	6.8

HCM 2010 AWSC
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	76	221	12
Future Vol, veh/h	0	76	221	12
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	78	228	12
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	36.8
HCM LOS	E

Lane

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Intersection	
Intersection Delay, s/veh	47.8
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	34	363	53	0	19	394	150	0	82	284	32
Future Vol, veh/h	0	34	363	53	0	19	394	150	0	82	284	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	386	56	0	20	419	160	0	87	302	34
Number of Lanes	0	0	1	0	0	0	2	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	73.2	20.2	68.6
HCM LOS	F	C	F

Lane	NBLn1	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	21%	8%	13%	0%	0%	47%
Vol Thru, %	71%	81%	87%	100%	0%	47%
Vol Right, %	8%	12%	0%	0%	100%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	398	450	150	263	150	140
LT Vol	82	34	19	0	0	66
Through Vol	284	363	131	263	0	66
RT Vol	32	53	0	0	150	8
Lane Flow Rate	423	479	160	279	160	149
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.984	1	0.378	0.655	0.343	0.396
Departure Headway (Hd)	8.367	8.523	8.503	8.44	7.738	9.575
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	436	431	425	430	468	377
Service Time	6.101	6.242	6.203	6.14	5.438	7.321
HCM Lane V/C Ratio	0.97	1.111	0.376	0.649	0.342	0.395
HCM Control Delay	68.6	73.2	16.3	25.8	14.4	18.5
HCM Lane LOS	F	F	C	D	B	C
HCM 95th-tile Q	12.2	12.6	1.7	4.6	1.5	1.8

HCM 2010 AWSC
4: Ardmore Ave & Gould Ave
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	66	66	8
Future Vol, veh/h	0	66	66	8
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	70	70	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	18.5
HCM LOS	C

Lane

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Intersection	
Intersection Delay, s/veh	45.8
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	26	421	70	0	30	385	131	0	70	189	33
Future Vol, veh/h	0	26	421	70	0	30	385	131	0	70	189	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	434	72	0	31	397	135	0	72	195	34
Number of Lanes	0	0	1	0	0	0	2	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	75.3	21.4	36.7
HCM LOS	F	C	E

Lane	NBLn1	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	24%	5%	19%	0%	0%	25%
Vol Thru, %	65%	81%	81%	100%	0%	72%
Vol Right, %	11%	14%	0%	0%	100%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	292	517	158	257	131	332
LT Vol	70	26	30	0	0	82
Through Vol	189	421	128	257	0	238
RT Vol	33	70	0	0	131	12
Lane Flow Rate	301	533	163	265	135	342
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.768	1	0.407	0.653	0.307	0.863
Departure Headway (Hd)	9.186	8.897	8.981	8.886	8.183	9.072
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	394	410	400	405	438	400
Service Time	6.941	6.69	6.754	6.659	5.956	6.825
HCM Lane V/C Ratio	0.764	1.3	0.407	0.654	0.308	0.855
HCM Control Delay	36.7	75.3	17.8	27	14.6	48
HCM Lane LOS	E	F	C	D	B	E
HCM 95th-tile Q	6.4	12.3	1.9	4.5	1.3	8.4

HCM 2010 AWSC
4: Ardmore Ave & Gould Ave
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	82	238	12
Future Vol, veh/h	0	82	238	12
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	85	245	12
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	48
HCM LOS	E

Lane

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Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	11	31	7	0	3	25	16	0	7	32	2
Future Vol, veh/h	0	11	31	7	0	3	25	16	0	7	32	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	32	7	0	3	26	17	0	7	33	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.1	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	22%	7%	26%
Vol Thru, %	78%	63%	57%	41%
Vol Right, %	5%	14%	36%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	49	44	27
LT Vol	7	11	3	7
Through Vol	32	31	25	11
RT Vol	2	7	16	9
Lane Flow Rate	43	51	46	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.049	0.057	0.05	0.031
Departure Headway (Hd)	4.128	4.051	3.891	3.986
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	863	880	916	892
Service Time	2.174	2.092	1.934	2.037
HCM Lane V/C Ratio	0.05	0.058	0.05	0.031
HCM Control Delay	7.4	7.3	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.1

HCM 2010 AWSC
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	11	9
Future Vol, veh/h	0	7	11	9
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	11	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	7	25	7	0	10	50	44	0	8	33	3
Future Vol, veh/h	0	7	25	7	0	10	50	44	0	8	33	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	28	8	0	11	56	49	0	9	37	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.4	7.6	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	18%	10%	20%
Vol Thru, %	75%	64%	48%	69%
Vol Right, %	7%	18%	42%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	44	39	104	49
LT Vol	8	7	10	10
Through Vol	33	25	50	34
RT Vol	3	7	44	5
Lane Flow Rate	49	44	117	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.058	0.05	0.127	0.065
Departure Headway (Hd)	4.251	4.134	3.914	4.231
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	832	855	906	836
Service Time	2.332	2.214	1.982	2.309
HCM Lane V/C Ratio	0.059	0.051	0.129	0.066
HCM Control Delay	7.6	7.4	7.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.4	0.2

HCM 2010 AWSC
5: Dianthus St & Duncan Ave

Existing with Hermosa Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	34	5
Future Vol, veh/h	0	10	34	5
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	38	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.6
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	11	32	7	0	3	26	17	0	7	33	2
Future Vol, veh/h	0	11	32	7	0	3	26	17	0	7	33	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	33	7	0	3	27	18	0	7	34	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.4	7.1	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	22%	7%	26%
Vol Thru, %	79%	64%	57%	41%
Vol Right, %	5%	14%	37%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	50	46	27
LT Vol	7	11	3	7
Through Vol	33	32	26	11
RT Vol	2	7	17	9
Lane Flow Rate	44	52	48	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.05	0.059	0.052	0.031
Departure Headway (Hd)	4.134	4.056	3.889	3.993
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	861	880	916	890
Service Time	2.182	2.097	1.934	2.045
HCM Lane V/C Ratio	0.051	0.059	0.052	0.031
HCM Control Delay	7.4	7.4	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.1

HCM 2010 AWSC
5: Dianthus St & Duncan Ave
Future with Hermosa Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	11	9
Future Vol, veh/h	0	7	11	9
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	11	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	7	26	7	0	10	52	46	0	8	34	3
Future Vol, veh/h	0	7	26	7	0	10	52	46	0	8	34	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	29	8	0	11	58	52	0	9	38	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.5	7.6	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	17%	9%	20%
Vol Thru, %	76%	65%	48%	70%
Vol Right, %	7%	17%	43%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	40	108	50
LT Vol	8	7	10	10
Through Vol	34	26	52	35
RT Vol	3	7	46	5
Lane Flow Rate	51	45	121	56
Geometry Grp	1	1	1	1
Degree of Util (X)	0.06	0.052	0.132	0.066
Departure Headway (Hd)	4.262	4.143	3.916	4.242
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	829	853	905	833
Service Time	2.346	2.226	1.987	2.325
HCM Lane V/C Ratio	0.062	0.053	0.134	0.067
HCM Control Delay	7.6	7.5	7.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.5	0.2

HCM 2010 AWSC
5: Dianthus St & Duncan Ave
Future with Hermosa Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	35	5
Future Vol, veh/h	0	10	35	5
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	39	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.6
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	5	1	3	0	4	0	14	0	1	26	4
Future Vol, veh/h	0	5	1	3	0	4	0	14	0	1	26	4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	1	3	0	4	0	16	0	1	29	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7	6.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	56%	22%	17%
Vol Thru, %	84%	11%	0%	71%
Vol Right, %	13%	33%	78%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	9	18	24
LT Vol	1	5	4	4
Through Vol	26	1	0	17
RT Vol	4	3	14	3
Lane Flow Rate	35	10	20	27
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.011	0.02	0.03
Departure Headway (Hd)	3.936	3.968	3.626	3.971
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	912	901	986	904
Service Time	1.949	1.995	1.653	1.985
HCM Lane V/C Ratio	0.038	0.011	0.02	0.03
HCM Control Delay	7.1	7	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

HCM 2010 AWSC
6: Tennyson Pl/Dianthus St & Boundary Pl
Existing with Hermosa Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	4	17	3
Future Vol, veh/h	0	4	17	3
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	19	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	2	3	0	1	2	10	0	3	21	5
Future Vol, veh/h	0	3	2	3	0	1	2	10	0	3	21	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	2	3	0	1	2	10	0	3	22	5
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7	6.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	38%	8%	9%
Vol Thru, %	72%	25%	15%	81%
Vol Right, %	17%	38%	77%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	8	13	47
LT Vol	3	3	1	4
Through Vol	21	2	2	38
RT Vol	5	3	10	5
Lane Flow Rate	30	8	14	49
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.009	0.014	0.054
Departure Headway (Hd)	3.925	3.933	3.632	3.947
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	908	983	910
Service Time	1.942	1.965	1.664	1.96
HCM Lane V/C Ratio	0.033	0.009	0.014	0.054
HCM Control Delay	7.1	7	6.7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.2

HCM 2010 AWSC
6: Tennyson Pl/Dianthus St & Boundary Pl
Existing with Hermosa Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	4	38	5
Future Vol, veh/h	0	4	38	5
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	40	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	5	1	3	0	4	0	15	0	1	27	4
Future Vol, veh/h	0	5	1	3	0	4	0	15	0	1	27	4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	1	3	0	4	0	17	0	1	30	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7	6.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	56%	21%	16%
Vol Thru, %	84%	11%	0%	72%
Vol Right, %	12%	33%	79%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	9	19	25
LT Vol	1	5	4	4
Through Vol	27	1	0	18
RT Vol	4	3	15	3
Lane Flow Rate	36	10	21	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.039	0.011	0.021	0.031
Departure Headway (Hd)	3.941	3.973	3.621	3.976
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	911	900	987	903
Service Time	1.954	2	1.648	1.99
HCM Lane V/C Ratio	0.04	0.011	0.021	0.031
HCM Control Delay	7.1	7	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

HCM 2010 AWSC
6: Tennyson Pl/Dianthus St & Boundary Pl
Future with Hermosa Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	4	18	3
Future Vol, veh/h	0	4	18	3
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	20	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	2	3	0	1	2	10	0	3	22	5
Future Vol, veh/h	0	3	2	3	0	1	2	10	0	3	22	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	2	3	0	1	2	10	0	3	23	5
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7	6.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	38%	8%	8%
Vol Thru, %	73%	25%	15%	82%
Vol Right, %	17%	38%	77%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	8	13	49
LT Vol	3	3	1	4
Through Vol	22	2	2	40
RT Vol	5	3	10	5
Lane Flow Rate	31	8	14	51
Geometry Grp	1	1	1	1
Degree of Util (X)	0.034	0.009	0.014	0.056
Departure Headway (Hd)	3.929	3.936	3.636	3.95
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	913	907	981	909
Service Time	1.946	1.971	1.67	1.963
HCM Lane V/C Ratio	0.034	0.009	0.014	0.056
HCM Control Delay	7.1	7	6.7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.2

HCM 2010 AWSC
6: Tennyson Pl/Dianthus St & Boundary Pl
Future with Hermosa Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	4	40	5
Future Vol, veh/h	0	4	40	5
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	42	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	27	8	0	2	21	17	0	2	16	3
Future Vol, veh/h	0	3	27	8	0	2	21	17	0	2	16	3
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	35	10	0	3	27	22	0	3	21	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.1	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	8%	5%	38%
Vol Thru, %	76%	71%	53%	46%
Vol Right, %	14%	21%	42%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	38	40	26
LT Vol	2	3	2	10
Through Vol	16	27	21	12
RT Vol	3	8	17	4
Lane Flow Rate	27	49	51	33
Geometry Grp	1	1	1	1
Degree of Util (X)	0.03	0.054	0.055	0.038
Departure Headway (Hd)	4.067	3.968	3.831	4.113
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	876	900	931	867
Service Time	2.112	2.003	1.868	2.157
HCM Lane V/C Ratio	0.031	0.054	0.055	0.038
HCM Control Delay	7.2	7.2	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2	0.1

HCM 2010 AWSC
7: Tennyson Pl & Longfellow Ave
Existing with Hermosa Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	12	4
Future Vol, veh/h	0	10	12	4
Peak Hour Factor	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	15	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.3
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	4	20	3	0	8	26	14	0	2	16	10
Future Vol, veh/h	0	4	20	3	0	8	26	14	0	2	16	10
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	23	3	0	9	30	16	0	2	18	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.3	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	15%	17%	46%
Vol Thru, %	57%	74%	54%	49%
Vol Right, %	36%	11%	29%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	27	48	39
LT Vol	2	4	8	18
Through Vol	16	20	26	19
RT Vol	10	3	14	2
Lane Flow Rate	32	31	55	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.035	0.035	0.061	0.052
Departure Headway (Hd)	3.918	4.074	3.951	4.171
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	908	875	903	855
Service Time	1.966	2.119	1.992	2.213
HCM Lane V/C Ratio	0.035	0.035	0.061	0.053
HCM Control Delay	7.1	7.3	7.3	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	18	19	2
Future Vol, veh/h	0	18	19	2
Peak Hour Factor	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	22	2
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.4
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	28	8	0	2	22	18	0	2	17	3
Future Vol, veh/h	0	3	28	8	0	2	22	18	0	2	17	3
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	36	10	0	3	28	23	0	3	22	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.1	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	8%	5%	38%
Vol Thru, %	77%	72%	52%	46%
Vol Right, %	14%	21%	43%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	39	42	26
LT Vol	2	3	2	10
Through Vol	17	28	22	12
RT Vol	3	8	18	4
Lane Flow Rate	28	50	54	33
Geometry Grp	1	1	1	1
Degree of Util (X)	0.032	0.055	0.057	0.038
Departure Headway (Hd)	4.075	3.975	3.831	4.119
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	898	931	865
Service Time	2.121	2.012	1.87	2.164
HCM Lane V/C Ratio	0.032	0.056	0.058	0.038
HCM Control Delay	7.3	7.2	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2	0.1

HCM 2010 AWSC
7: Tennyson Pl & Longfellow Ave
Future with Hermosa Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	12	4
Future Vol, veh/h	0	10	12	4
Peak Hour Factor	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	15	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.3
HCM LOS	A

Lane

Skechers Design Center and Offices Project/1-14-4065-2
LLG Engineers
Synchro 9 Report
4/11/2016

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	4	21	3	0	8	27	15	0	2	17	10
Future Vol, veh/h	0	4	21	3	0	8	27	15	0	2	17	10
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	24	3	0	9	31	17	0	2	20	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.3	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	14%	16%	46%
Vol Thru, %	59%	75%	54%	49%
Vol Right, %	34%	11%	30%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	28	50	41
LT Vol	2	4	8	19
Through Vol	17	21	27	20
RT Vol	10	3	15	2
Lane Flow Rate	33	32	57	47
Geometry Grp	1	1	1	1
Degree of Util (X)	0.036	0.037	0.063	0.055
Departure Headway (Hd)	3.933	4.083	3.951	4.179
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	904	872	902	853
Service Time	1.983	2.13	1.995	2.224
HCM Lane V/C Ratio	0.037	0.037	0.063	0.055
HCM Control Delay	7.1	7.3	7.3	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.2

HCM 2010 AWSC
7: Tennyson Pl & Longfellow Ave
Future with Hermosa Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	19	20	2
Future Vol, veh/h	0	19	20	2
Peak Hour Factor	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	22	23	2
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.5
HCM LOS	A

Lane

Skechers Design Center and Offices Project/1-14-4065-2
LLG Engineers
Synchro 9 Report
4/11/2016

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	6	38	5	0	6	17	11	0	2	1	2
Future Vol, veh/h	0	6	38	5	0	6	17	11	0	2	1	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	39	5	0	6	17	11	0	2	1	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	12%	18%	68%
Vol Thru, %	20%	78%	50%	16%
Vol Right, %	40%	10%	32%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	49	34	19
LT Vol	2	6	6	13
Through Vol	1	38	17	3
RT Vol	2	5	11	3
Lane Flow Rate	5	50	35	19
Geometry Grp	1	1	1	1
Degree of Util (X)	0.006	0.055	0.037	0.022
Departure Headway (Hd)	3.935	3.966	3.855	4.127
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	906	905	929	866
Service Time	1.972	1.983	1.876	2.16
HCM Lane V/C Ratio	0.006	0.055	0.038	0.022
HCM Control Delay	7	7.2	7	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0.1	0.1

HCM 2010 AWSC
8: Tennyson Pl & 30th St

Existing with Hermosa Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	13	3	3
Future Vol, veh/h	0	13	3	3
Peak Hour Factor	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	3	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.3
HCM LOS	A

Lane

Skechers Design Center and Offices Project/1-14-4065-2
LLG Engineers

Synchro 9 Report
4/11/2016

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	12	29	2	0	1	7	15	0	2	3	3
Future Vol, veh/h	0	12	29	2	0	1	7	15	0	2	3	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	13	32	2	0	1	8	17	0	2	3	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	6.8	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	28%	4%	53%
Vol Thru, %	38%	67%	30%	9%
Vol Right, %	38%	5%	65%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	43	23	32
LT Vol	2	12	1	17
Through Vol	3	29	7	3
RT Vol	3	2	15	12
Lane Flow Rate	9	48	26	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.054	0.026	0.039
Departure Headway (Hd)	3.913	4.06	3.665	3.949
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	912	883	975	905
Service Time	1.948	2.08	1.693	1.98
HCM Lane V/C Ratio	0.01	0.054	0.027	0.04
HCM Control Delay	7	7.3	6.8	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0.1	0.1

HCM 2010 AWSC
8: Tennyson Pl & 30th St

Existing with Hermosa Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	17	3	12
Future Vol, veh/h	0	17	3	12
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	19	3	13
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

Skechers Design Center and Offices Project/1-14-4065-2
LLG Engineers

Synchro 9 Report
4/11/2016

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	6	39	5	0	6	18	11	0	2	1	2
Future Vol, veh/h	0	6	39	5	0	6	18	11	0	2	1	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	40	5	0	6	18	11	0	2	1	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	12%	17%	70%
Vol Thru, %	20%	78%	51%	15%
Vol Right, %	40%	10%	31%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	50	35	20
LT Vol	2	6	6	14
Through Vol	1	39	18	3
RT Vol	2	5	11	3
Lane Flow Rate	5	51	36	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.006	0.056	0.038	0.023
Departure Headway (Hd)	3.939	3.97	3.863	4.138
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	905	904	928	863
Service Time	1.977	1.987	1.884	2.172
HCM Lane V/C Ratio	0.006	0.056	0.039	0.023
HCM Control Delay	7	7.2	7	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0.1	0.1

HCM 2010 AWSC
8: Tennyson Pl & 30th St

Future with Hermosa Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	14	3	3
Future Vol, veh/h	0	14	3	3
Peak Hour Factor	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	3	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.3
HCM LOS	A

Lane

Skechers Design Center and Offices Project/1-14-4065-2
LLG Engineers

Synchro 9 Report
4/11/2016

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	12	30	2	0	1	7	16	0	2	3	3
Future Vol, veh/h	0	12	30	2	0	1	7	16	0	2	3	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	13	33	2	0	1	8	18	0	2	3	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	6.8	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	27%	4%	55%
Vol Thru, %	38%	68%	29%	9%
Vol Right, %	38%	5%	67%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	44	24	33
LT Vol	2	12	1	18
Through Vol	3	30	7	3
RT Vol	3	2	16	12
Lane Flow Rate	9	49	27	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.055	0.027	0.04
Departure Headway (Hd)	3.918	4.062	3.659	3.962
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	911	882	977	902
Service Time	1.953	2.082	1.687	1.993
HCM Lane V/C Ratio	0.01	0.056	0.028	0.041
HCM Control Delay	7	7.3	6.8	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	18	3	12
Future Vol, veh/h	0	18	3	12
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	20	3	13
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Manhattan Beach Boulevard

N-S St: Sepulveda Boulevard
E-W St: Manhattan Beach Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU9

Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	127	1600	0.079	1	128	1600	0.080	0	128	1600	0.080	5	18	150	1600	0.094	1	151	1600	0.094	0	151	1600	0.094
NB Thru	2794	4800	0.602 *	8	2802	4800	0.604 *	0	2802	4800	0.604 *	113	123	3030	4800	0.657 *	8	3038	4800	0.659 *	0	3038	4800	0.659 *
NB Right	96	0	0.000	2	98	0	0.000	0	98	0	0.000	4	24	124	0	0.000	2	126	0	0.000	0	126	0	0.000
SB Left	118	2880	0.041 *	0	118	2880	0.041 *	0	118	2880	0.041 *	5	2	125	2880	0.043 *	0	125	2880	0.043 *	0	125	2880	0.043 *
SB Thru	895	4800	0.215	55	950	4800	0.227	0	950	4800	0.227	36	128	1059	4800	0.253	55	1114	4800	0.264	0	1114	4800	0.264
SB Right	138	0	0.000	0	138	0	0.000	0	138	0	0.000	6	10	154	0	0.000	0	154	0	0.000	0	154	0	0.000
EB Left	193	1600	0.121 *	0	193	1600	0.121 *	0	193	1600	0.121 *	8	10	211	1600	0.132 *	0	211	1600	0.132 *	0	211	1600	0.132 *
EB Thru	520	3200	0.163	0	520	3200	0.163	0	520	3200	0.163	21	8	549	3200	0.172	0	549	3200	0.172	0	549	3200	0.172
EB Right	136	1600	0.085	2	138	1600	0.086	0	138	1600	0.086	6	17	159	1600	0.099	2	161	1600	0.101	0	161	1600	0.101
WB Left	149	1600	0.093	13	162	1600	0.101	0	162	1600	0.101	6	32	187	1600	0.117	13	200	1600	0.125	0	200	1600	0.125
WB Thru	563	3200	0.176 *	0	563	3200	0.176 *	0	563	3200	0.176 *	23	12	598	3200	0.187 *	0	598	3200	0.187 *	0	598	3200	0.187 *
WB Right [3]	173	1600	0.067	0	173	1600	0.067	0	173	1600	0.067	7	2	182	1600	0.070	0	182	1600	0.070	0	182	1600	0.070
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.040				1.042				1.042					1.119				1.121				1.121
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Manhattan Beach Boulevard

N-S St: Sepulveda Boulevard
E-W St: Manhattan Beach Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU9

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	230	1600	0.144 *	5	235	1600	0.147 *	0	235	1600	0.147 *	9	13	252	1600	0.158 *	5	257	1600	0.161 *	0	257	1600	0.161 *
NB Thru	1220	4800	0.288	52	1272	4800	0.301	0	1272	4800	0.301	50	193	1463	4800	0.346	52	1515	4800	0.359	0	1515	4800	0.359
NB Right	162	0	0.000	12	174	0	0.000	0	174	0	0.000	7	27	196	0	0.000	12	208	0	0.000	0	208	0	0.000
SB Left	171	2880	0.059	0	171	2880	0.059	0	171	2880	0.059	7	5	183	2880	0.064	0	183	2880	0.064	0	183	2880	0.064
SB Thru	2141	4800	0.471 *	11	2152	4800	0.474 *	0	2152	4800	0.474 *	87	218	2446	4800	0.538 *	11	2457	4800	0.540 *	0	2457	4800	0.540 *
SB Right	121	0	0.000	0	121	0	0.000	0	121	0	0.000	5	9	135	0	0.000	0	135	0	0.000	0	135	0	0.000
EB Left	233	1600	0.146	0	233	1600	0.146	0	233	1600	0.146	9	11	253	1600	0.158	0	253	1600	0.158	0	253	1600	0.158
EB Thru	528	3200	0.165 *	0	528	3200	0.165 *	0	528	3200	0.165 *	21	8	557	3200	0.174 *	0	557	3200	0.174 *	0	557	3200	0.174 *
EB Right	133	1600	0.083	0	133	1600	0.083	0	133	1600	0.083	5	12	150	1600	0.094	0	150	1600	0.094	0	150	1600	0.094
WB Left	276	1600	0.173 *	3	279	1600	0.174 *	0	279	1600	0.174 *	11	20	307	1600	0.192 *	3	310	1600	0.194 *	0	310	1600	0.194 *
WB Thru	519	3200	0.162	0	519	3200	0.162	0	519	3200	0.162	21	4	544	3200	0.170	0	544	3200	0.170	0	544	3200	0.170
WB Right [3]	140	1600	0.028	0	140	1600	0.028	0	140	1600	0.028	6	7	153	1600	0.032	0	153	1600	0.032	0	153	1600	0.032
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.053				1.060				1.060					1.161				1.168				1.168
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
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3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: 8th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU10

Sepulveda Boulevard @ 8th Street
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	18	1600	0.011	0	18	1600	0.011	0	18	1600	0.011	1	35	54	1600	0.034	0	54	1600	0.034	0	54	1600	0.034
NB Thru	3089	4800	0.645 *	10	3099	4800	0.647 *	0	3099	4800	0.647 *	125	130	3344	4800	0.698 *	10	3354	4800	0.700 *	0	3354	4800	0.700 *
NB Right	7	0	0.000	0	7	0	0.000	0	7	0	0.000	0	0	7	0	0.000	0	7	0	0.000	0	7	0	0.000
SB Left [4]	6	1600	0.004 *	0	6	1600	0.004 *	0	6	1600	0.004 *	0	1	7	1600	0.004 *	0	7	1600	0.004 *	0	7	1600	0.004 *
SB Thru	1108	4800	0.239	73	1181	4800	0.254	0	1181	4800	0.254	45	132	1285	4800	0.277	73	1358	4800	0.292	0	1358	4800	0.292
SB Right	40	0	0.000	0	40	0	0.000	0	40	0	0.000	2	2	44	0	0.000	0	44	0	0.000	0	44	0	0.000
EB Left	21	0	0.013 *	0	21	0	0.013 *	0	21	0	0.013 *	1	19	41	0	0.026 *	0	41	0	0.026 *	0	41	0	0.026 *
EB Thru	46	1600	0.043	0	46	1600	0.044	0	46	1600	0.044	2	6	54	1600	0.061	0	54	1600	0.062	0	54	1600	0.062
EB Right	2	0	0.000	2	4	0	0.000	0	4	0	0.000	0	0	2	0	0.000	2	4	0	0.000	0	4	0	0.000
WB Left	22	0	0.014	0	22	0	0.014	0	22	0	0.014	1	0	23	0	0.014	0	23	0	0.014	0	23	0	0.014
WB Thru	72	1600	0.059 *	0	72	1600	0.059 *	0	72	1600	0.059 *	3	9	84	1600	0.067 *	0	84	1600	0.067 *	0	84	1600	0.067 *
WB Right	55	1600	0.034	0	55	1600	0.034	0	55	1600	0.034	2	1	58	1600	0.036	0	58	1600	0.036	0	58	1600	0.036
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.821				0.823				0.823					0.895				0.897				0.897
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turns 3-7 PM
4 No southbound left-turns 7-9 AM

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INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: 8th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU10

Sepulveda Boulevard @ 8th Street
Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	2	1600	0.001 *	0	2	1600	0.001 *	0	2	1600	0.001 *	0	33	35	1600	0.022 *	0	35	1600	0.022 *	0	35	1600	0.022 *
NB Thru	1481	4800	0.312	69	1550	4800	0.326	0	1550	4800	0.326	60	167	1708	4800	0.359	69	1777	4800	0.374	0	1777	4800	0.374
NB Right	16	0	0.000	0	16	0	0.000	0	16	0	0.000	1	0	17	0	0.000	0	17	0	0.000	0	17	0	0.000
SB Left [4]	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030	2	1	51	1600	0.032	0	51	1600	0.032	0	51	1600	0.032
SB Thru	2554	4800	0.534 *	15	2569	4800	0.537 *	0	2569	4800	0.537 *	104	246	2904	4800	0.607 *	15	2919	4800	0.610 *	0	2919	4800	0.610 *
SB Right	9	0	0.000	0	9	0	0.000	0	9	0	0.000	0	2	11	0	0.000	0	11	0	0.000	0	11	0	0.000
EB Left	34	0	0.021	0	34	0	0.021	0	34	0	0.021	1	21	56	0	0.035	0	56	0	0.035	0	56	0	0.035
EB Thru	28	1600	0.051 *	0	28	1600	0.051 *	0	28	1600	0.051 *	1	7	36	1600	0.071 *	0	36	1600	0.071 *	0	36	1600	0.071 *
EB Right	20	0	0.000	0	20	0	0.000	0	20	0	0.000	1	0	21	0	0.000	0	21	0	0.000	0	21	0	0.000
WB Left	21	0	0.013 *	0	21	0	0.013 *	0	21	0	0.013 *	1	0	22	0	0.014 *	0	22	0	0.014 *	0	22	0	0.014 *
WB Thru	18	1600	0.024	0	18	1600	0.024	0	18	1600	0.024	1	9	28	1600	0.031	0	28	1600	0.031	0	28	1600	0.031
WB Right	19	1600	0.012	0	19	1600	0.012	0	19	1600	0.012	1	1	21	1600	0.013	0	21	1600	0.013	0	21	1600	0.013
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.700				0.703				0.703					0.814				0.817				0.817
LOS			B				C				C					D				D				D

** Key conflicting movement as a part of ICU*
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3 No northbound left-turns 3-7 PM
4 No southbound left-turns 7-9 AM

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INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: 2nd Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU11

Sepulveda Boulevard @ 2nd Street
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	20	1600	0.013	1	21	1600	0.013	0	21	1600	0.013	1	1	22	1600	0.014	1	23	1600	0.014	0	23	1600	0.014
NB Thru	2903	4800	0.608 *	10	2913	4800	0.610 *	0	2913	4800	0.610 *	118	161	3182	4800	0.667 *	10	3192	4800	0.669 *	0	3192	4800	0.669 *
NB Right	17	0	0.000	0	17	0	0.000	0	17	0	0.000	1	0	18	0	0.000	0	18	0	0.000	0	18	0	0.000
SB Left	43	1600	0.027 *	0	43	1600	0.027 *	0	43	1600	0.027 *	2	5	50	1600	0.031 *	0	50	1600	0.031 *	0	50	1600	0.031 *
SB Thru	979	4800	0.218	75	1054	4800	0.233	0	1054	4800	0.233	40	115	1134	4800	0.251	75	1209	4800	0.266	0	1209	4800	0.266
SB Right	65	0	0.000	0	65	0	0.000	0	65	0	0.000	3	2	70	0	0.000	0	70	0	0.000	0	70	0	0.000
EB Left	55	1600	0.034 *	0	55	1600	0.034 *	0	55	1600	0.034 *	2	2	59	1600	0.037 *	0	59	1600	0.037 *	0	59	1600	0.037 *
EB Thru	108	1600	0.077	0	108	1600	0.078	0	108	1600	0.078	4	0	112	1600	0.081	0	112	1600	0.082	0	112	1600	0.082
EB Right	15	0	0.000	2	17	0	0.000	0	17	0	0.000	1	1	17	0	0.000	2	19	0	0.000	0	19	0	0.000
WB Left	39	1600	0.024	0	39	1600	0.024	0	39	1600	0.024	2	0	41	1600	0.026	0	41	1600	0.026	0	41	1600	0.026
WB Thru	93	1600	0.098 *	0	93	1600	0.098 *	0	93	1600	0.098 *	4	3	100	1600	0.108 *	0	100	1600	0.108 *	0	100	1600	0.108 *
WB Right	64	0	0.000	0	64	0	0.000	0	64	0	0.000	3	5	72	0	0.000	0	72	0	0.000	0	72	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.868				0.870				0.870					0.942				0.944				0.944
LOS			D				D				D					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: 2nd Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU11

Sepulveda Boulevard @ 2nd Street
Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	22	1600	0.014 *	3	25	1600	0.016 *	0	25	1600	0.016 *	1	3	26	1600	0.016 *	3	29	1600	0.018 *	0	29	1600	0.018 *
NB Thru	1368	4800	0.290	69	1437	4800	0.305	0	1437	4800	0.305	56	215	1639	4800	0.347	69	1708	4800	0.361	0	1708	4800	0.361
NB Right	26	0	0.000	0	26	0	0.000	0	26	0	0.000	1	0	27	0	0.000	0	27	0	0.000	0	27	0	0.000
SB Left	35	1600	0.022	0	35	1600	0.022	0	35	1600	0.022	1	6	42	1600	0.026	0	42	1600	0.026	0	42	1600	0.026
SB Thru	2292	4800	0.483 *	16	2308	4800	0.486 *	0	2308	4800	0.486 *	93	215	2600	4800	0.548 *	16	2616	4800	0.551 *	0	2616	4800	0.551 *
SB Right	27	0	0.000	0	27	0	0.000	0	27	0	0.000	1	2	30	0	0.000	0	30	0	0.000	0	30	0	0.000
EB Left	69	1600	0.043	0	69	1600	0.043	0	69	1600	0.043	3	1	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046
EB Thru	77	1600	0.091 *	0	77	1600	0.091 *	0	77	1600	0.091 *	3	0	80	1600	0.096 *	0	80	1600	0.096 *	0	80	1600	0.096 *
EB Right	68	0	0.000	0	68	0	0.000	0	68	0	0.000	3	3	74	0	0.000	0	74	0	0.000	0	74	0	0.000
WB Left	39	1600	0.024 *	0	39	1600	0.024 *	0	39	1600	0.024 *	2	0	41	1600	0.026 *	0	41	1600	0.026 *	0	41	1600	0.026 *
WB Thru	52	1600	0.053	0	52	1600	0.053	0	52	1600	0.053	2	3	57	1600	0.059	0	57	1600	0.059	0	57	1600	0.059
WB Right	33	0	0.000	0	33	0	0.000	0	33	0	0.000	1	4	38	0	0.000	0	38	0	0.000	0	38	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.712				0.717				0.717					0.786				0.791				0.791
LOS			C				C				C					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	3	17	0	1	19	77	2949	9	34	1079	32
Future Vol, veh/h	5	3	17	0	1	19	77	2949	9	34	1079	32
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	40
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	3	18	0	1	20	81	3104	9	36	1136	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2630	4502	589	3800	4514	1597	1171	0	0	3114	0	0
Stage 1	1226	1226	-	3271	3271	-	-	-	-	-	-	-
Stage 2	1404	3276	-	529	1243	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	25	~ 1	387	4	~ 1	82	323	-	-	~ 33	-	-
Stage 1	138	249	-	4	22	-	-	-	-	-	-	-
Stage 2	131	22	-	457	245	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	386	-	~ 1	79	322	-	-	~ 32	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	103	249	-	3	16	-	-	-	-	-	-	-
Stage 2	66	16	-	430	245	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.5	11.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	322	-	-	-	-	~ 32	-	-
HCM Lane V/C Ratio	0.252	-	-	-	-	1.118	-	-
HCM Control Delay (s)	19.9	-	-	-	-	$ 383.6	-	-
HCM Lane LOS	C	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	1	-	-	-	-	3.9	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	13

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	1	46	0	0	30	40	1428	8	25	2308	18
Future Vol, veh/h	5	1	46	0	0	30	40	1428	8	25	2308	18
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	1	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1	47	0	0	31	41	1457	8	26	2355	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3080	3963	1189	2538	3968	760	2374	0	0	1465	0	0
Stage 1	2416	2416	-	1543	1543	-	-	-	-	-	-	-
Stage 2	664	1547	-	995	2425	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	13	3	155	29	3	299	80	-	-	232	-	-
Stage 1	19	63	-	82	175	-	-	-	-	-	-	-
Stage 2	379	174	-	237	62	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	6	~ 1	155	-	1	292	80	-	-	227	-	-
Mov Cap-2 Maneuver	6	~ 1	-	-	1	-	-	-	-	-	-	-
Stage 1	9	56	-	40	85	-	-	-	-	-	-	-
Stage 2	162	85	-	144	55	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 900.2		2.4	0.2
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	80	-	-	24	-	227	-	-
HCM Lane V/C Ratio	0.51	-	-	2.211	-	0.112	-	-
HCM Control Delay (s)	89.7	-	-	$ 900.2	-	22.9	-	-
HCM Lane LOS	F	-	-	F	-	C	-	-
HCM 95th %tile Q(veh)	2.2	-	-	6.6	-	0.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	3	18	0	1	20	80	3222	9	35	1243	33
Future Vol, veh/h	5	3	18	0	1	20	80	3222	9	35	1243	33
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	40
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	3	19	0	1	21	84	3392	9	37	1308	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2927	4970	676	4166	4984	1741	1345	0	0	3401	0	0
Stage 1	1401	1401	-	3565	3565	-	-	-	-	-	-	-
Stage 2	1526	3569	-	601	1419	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	16	~ 1	339	2	~ 1	65	266	-	-	~ 23	-	-
Stage 1	104	205	-	3	15	-	-	-	-	-	-	-
Stage 2	109	15	-	414	201	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	338	-	~ 1	63	266	-	-	~ 22	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	71	205	-	2	10	-	-	-	-	-	-	-
Stage 2	43	10	-	384	201	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.6	18.8
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	266	-	-	-	-	~ 22	-	-
HCM Lane V/C Ratio	0.317	-	-	-	-	1.675	-	-
HCM Control Delay (s)	24.7	-	-	-	-	$ 703	-	-
HCM Lane LOS	C	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	1.3	-	-	-	-	4.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	18.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	1	48	0	0	31	42	1676	8	26	2643	19
Future Vol, veh/h	5	1	48	0	0	31	42	1676	8	26	2643	19
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	1	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1	49	0	0	32	43	1710	8	27	2697	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3531	4565	1360	2933	4570	886	2717	0	0	1718	0	0
Stage 1	2761	2761	-	1800	1800	-	-	-	-	-	-	-
Stage 2	770	1804	-	1133	2770	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	7	~ 1	119	16	1	247	53	-	-	174	-	-
Stage 1	10	41	-	54	130	-	-	-	-	-	-	-
Stage 2	326	130	-	194	41	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 2	0	119	3	0	241	53	-	-	170	-	-
Mov Cap-2 Maneuver	~ 2	0	-	3	0	-	-	-	-	-	-	-
Stage 1	~ 2	34	-	10	25	-	-	-	-	-	-	-
Stage 2	52	25	-	93	34	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 1369.2	22.2	4.7	0.3
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	53	-	-	18	241	170	-	-
HCM Lane V/C Ratio	0.809	-	-	3.061	0.131	0.156	-	-
HCM Control Delay (s)	192.9	-	-	$ 1369.2	22.2	30.1	-	-
HCM Lane LOS	F	-	-	F	C	D	-	-
HCM 95th %tile Q(veh)	3.4	-	-	7.4	0.4	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Duncan Avenue-Duncan Drive

N-S St: Sepulveda Boulevard
E-W St: Duncan Avenue-Duncan Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU12

Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048	3	0	80	1600	0.050	0	80	1600	0.050	0	80	1600	0.050
NB Thru	2938	4800	0.614 *	11	2949	4800	0.616 *	0	2949	4800	0.616 *	119	154	3211	4800	0.671 *	11	3222	4800	0.673 *	0	3222	4800	0.673 *
NB Right	9	0	0.000	0	9	0	0.000	0	9	0	0.000	0	0	9	0	0.000	0	9	0	0.000	0	9	0	0.000
SB Left	34	1600	0.021 *	0	34	1600	0.021 *	0	34	1600	0.021 *	1	0	35	1600	0.022 *	0	35	1600	0.022 *	0	35	1600	0.022 *
SB Thru	1003	4800	0.216	76	1079	4800	0.231	0	1079	4800	0.231	41	123	1167	4800	0.250	76	1243	4800	0.266	0	1243	4800	0.266
SB Right	32	0	0.000	0	32	0	0.000	0	32	0	0.000	1	0	33	0	0.000	0	33	0	0.000	0	33	0	0.000
EB Left	5	0	0.003	0	5	0	0.003	0	5	0	0.003	0	0	5	0	0.003	0	5	0	0.003	0	5	0	0.003
EB Thru	3	1600	0.016	0	3	1600	0.016	0	3	1600	0.016	0	0	3	1600	0.016	0	3	1600	0.016	0	3	1600	0.016
EB Right	17	0	0.000	0	17	0	0.000	0	17	0	0.000	1	0	18	0	0.000	0	18	0	0.000	0	18	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	1	1600	0.013	0	1	1600	0.013	0	1	1600	0.013	0	0	1	1600	0.013	0	1	1600	0.013	0	1	1600	0.013
WB Right	19	0	0.000	0	19	0	0.000	0	19	0	0.000	1	0	20	0	0.000	0	20	0	0.000	0	20	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.751				0.753				0.753					0.809				0.811				0.811
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Duncan Avenue-Duncan Drive

N-S St: Sepulveda Boulevard
E-W St: Duncan Avenue-Duncan Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU12

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	0	40	1600	0.025 *	0	40	1600	0.025 *	2	0	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *
NB Thru	1356	4800	0.284	72	1428	4800	0.299	0	1428	4800	0.299	55	193	1604	4800	0.336	72	1676	4800	0.351	0	1676	4800	0.351
NB Right	8	0	0.000	0	8	0	0.000	0	8	0	0.000	0	0	8	0	0.000	0	8	0	0.000	0	8	0	0.000
SB Left	25	1600	0.016	0	25	1600	0.016	0	25	1600	0.016	1	0	26	1600	0.016	0	26	1600	0.016	0	26	1600	0.016
SB Thru	2292	4800	0.481 *	16	2308	4800	0.485 *	0	2308	4800	0.485 *	93	242	2627	4800	0.551 *	16	2643	4800	0.555 *	0	2643	4800	0.555 *
SB Right	18	0	0.000	0	18	0	0.000	0	18	0	0.000	1	0	19	0	0.000	0	19	0	0.000	0	19	0	0.000
EB Left	5	0	0.003	0	5	0	0.003	0	5	0	0.003	0	0	5	0	0.003	0	5	0	0.003	0	5	0	0.003
EB Thru	1	1600	0.033 *	0	1	1600	0.033 *	0	1	1600	0.033 *	0	0	1	1600	0.034 *	0	1	1600	0.034 *	0	1	1600	0.034 *
EB Right	46	0	0.000	0	46	0	0.000	0	46	0	0.000	2	0	48	0	0.000	0	48	0	0.000	0	48	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	1600	0.019	0	0	1600	0.019	0	0	1600	0.019	0	0	0	1600	0.019	0	0	1600	0.019	0	0	1600	0.019
WB Right	30	0	0.000	0	30	0	0.000	0	30	0	0.000	1	0	31	0	0.000	0	31	0	0.000	0	31	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.639				0.642				0.642					0.711				0.715				0.715
LOS			B				B				B					C				C				C

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Longfellow Avenue-Longfellow Drive

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Longfellow Avenue-Longfellow Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU13

Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	7	1600	0.004	0	7	1600	0.004	0	7	1600	0.004	0	0	7	1600	0.004	0	7	1600	0.004	0	7	1600	0.004
NB Thru	3038	4800	0.637 *	11	3049	4800	0.640 *	0	3049	4800	0.640 *	123	154	3315	4800	0.695 *	11	3326	4800	0.698 *	0	3326	4800	0.698 *
NB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
SB Left	47	1600	0.029 *	0	47	1600	0.029 *	0	47	1600	0.029 *	2	0	49	1600	0.031 *	0	49	1600	0.031 *	0	49	1600	0.031 *
SB Thru	963	4800	0.203	76	1039	4800	0.219	0	1039	4800	0.219	39	123	1125	4800	0.237	76	1201	4800	0.253	0	1201	4800	0.253
SB Right	11	0	0.000	0	11	0	0.000	0	11	0	0.000	0	0	11	0	0.000	0	11	0	0.000	0	11	0	0.000
EB Left	11	0	0.007 *	0	11	0	0.007 *	0	11	0	0.007 *	0	0	11	0	0.007 *	0	11	0	0.007 *	0	11	0	0.007 *
EB Thru	25	1600	0.029	0	25	1600	0.029	0	25	1600	0.029	1	0	26	1600	0.029	0	26	1600	0.029	0	26	1600	0.029
EB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
WB Left	15	1600	0.009	2	17	1600	0.011	0	17	1600	0.011	1	0	16	1600	0.010	2	18	1600	0.011	0	18	1600	0.011
WB Thru	18	1600	0.041 *	0	18	1600	0.041 *	0	18	1600	0.041 *	1	0	19	1600	0.043 *	0	19	1600	0.043 *	0	19	1600	0.043 *
WB Right	47	0	0.000	0	47	0	0.000	0	47	0	0.000	2	0	49	0	0.000	0	49	0	0.000	0	49	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.814				0.816				0.816					0.875				0.878				0.878
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
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2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Longfellow Avenue-Longfellow Drive

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Longfellow Avenue-Longfellow Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU13

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	24	1600	0.015 *	0	24	1600	0.015 *	0	24	1600	0.015 *	1	0	25	1600	0.016 *	0	25	1600	0.016 *	0	25	1600	0.016 *
NB Thru	1338	4800	0.283	72	1410	4800	0.299	0	1410	4800	0.299	54	193	1585	4800	0.335	72	1657	4800	0.350	0	1657	4800	0.350
NB Right	21	0	0.000	2	23	0	0.000	0	23	0	0.000	1	0	22	0	0.000	2	24	0	0.000	0	24	0	0.000
SB Left	20	1600	0.013	0	20	1600	0.013	0	20	1600	0.013	1	0	21	1600	0.013	0	21	1600	0.013	0	21	1600	0.013
SB Thru	2398	4800	0.502 *	16	2414	4800	0.506 *	0	2414	4800	0.506 *	97	242	2737	4800	0.573 *	16	2753	4800	0.576 *	0	2753	4800	0.576 *
SB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
EB Left	13	0	0.008	0	13	0	0.008	0	13	0	0.008	1	0	14	0	0.009	0	14	0	0.009	0	14	0	0.009
EB Thru	14	1600	0.026 *	0	14	1600	0.026 *	0	14	1600	0.026 *	1	0	15	1600	0.028 *	0	15	1600	0.028 *	0	15	1600	0.028 *
EB Right	15	0	0.000	0	15	0	0.000	0	15	0	0.000	1	0	16	0	0.000	0	16	0	0.000	0	16	0	0.000
WB Left	39	1600	0.024 *	0	39	1600	0.024 *	0	39	1600	0.024 *	2	0	41	1600	0.026 *	0	41	1600	0.026 *	0	41	1600	0.026 *
WB Thru	17	1600	0.027	0	17	1600	0.027	0	17	1600	0.027	1	0	18	1600	0.028	0	18	1600	0.028	0	18	1600	0.028
WB Right	26	0	0.000	0	26	0	0.000	0	26	0	0.000	1	0	27	0	0.000	0	27	0	0.000	0	27	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.668				0.671				0.671					0.743				0.746				0.746
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	5	64	60	3056	995	50
Future Vol, veh/h	5	64	60	3056	995	50
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	67	63	3183	1036	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2461	544	1089	0	-	0
Stage 1	1063	-	-	-	-	-
Stage 2	1398	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	52	414	354	-	-	-
Stage 1	221	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	43	414	354	-	-	-
Mov Cap-2 Maneuver	43	-	-	-	-	-
Stage 1	221	-	-	-	-	-
Stage 2	142	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.6	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	354	-	255	-	-
HCM Lane V/C Ratio	0.177	-	0.282	-	-
HCM Control Delay (s)	17.3	-	24.6	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.6	-	1.1	-	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	16	76	5	1451	2452	13
Future Vol, veh/h	16	76	5	1451	2452	13
Conflicting Peds, #/hr	0	0	0	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	78	5	1496	2528	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3144	1271	2541	0	-	0
Stage 1	2535	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	22	136	66	-	-	-
Stage 1	25	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	20	136	66	-	-	-
Mov Cap-2 Maneuver	20	-	-	-	-	-
Stage 1	25	-	-	-	-	-
Stage 2	426	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 349.5	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	66	-	68	-	-
HCM Lane V/C Ratio	0.078	-	1.395	-	-
HCM Control Delay (s)	64.1	-	$ 349.5	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	0.2	-	7.9	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	5	66	62	3334	1156	52
Future Vol, veh/h	5	66	62	3334	1156	52
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	69	65	3473	1204	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2749	629	1258	0	-	0
Stage 1	1231	-	-	-	-	-
Stage 2	1518	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	36	364	293	-	-	-
Stage 1	174	-	-	-	-	-
Stage 2	149	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	28	364	293	-	-	-
Mov Cap-2 Maneuver	28	-	-	-	-	-
Stage 1	174	-	-	-	-	-
Stage 2	116	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.9	0.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	293	-	197	-	-
HCM Lane V/C Ratio	0.22	-	0.375	-	-
HCM Control Delay (s)	20.7	-	33.9	-	-
HCM Lane LOS	C	-	D	-	-
HCM 95th %tile Q(veh)	0.8	-	1.6	-	-

Intersection	
Int Delay, s/veh	16.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	16	79	5	1700	2793	13
Future Vol, veh/h	16	79	5	1700	2793	13
Conflicting Peds, #/hr	0	0	0	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	81	5	1753	2879	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3597	1446	2893	0	-	0
Stage 1	2886	-	-	-	-	-
Stage 2	711	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	~ 12	104	43	-	-	-
Stage 1	~ 15	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 11	104	43	-	-	-
Mov Cap-2 Maneuver	~ 11	-	-	-	-	-
Stage 1	~ 15	-	-	-	-	-
Stage 2	360	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 786.6	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	43	-	43	-	-
HCM Lane V/C Ratio	0.12	-	2.278	-	-
HCM Control Delay (s)	99.8	-	$ 786.6	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	0.4	-	10.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 30th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU14

Pacific Coast Highway @ 30th Street
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	47	1600	0.029	13	60	1600	0.038	0	60	1600	0.038	2	0	49	1600	0.031	13	62	1600	0.039	0	62	1600	0.039
NB Thru	3047	4800	0.635 *	9	3056	4800	0.637 *	0	3056	4800	0.637 *	124	154	3325	4800	0.693 *	9	3334	4800	0.695 *	0	3334	4800	0.695 *
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
SB Thru	929	4800	0.201	66	995	4800	0.218	0	995	4800	0.218	38	123	1090	4800	0.235	66	1156	4800	0.252	0	1156	4800	0.252
SB Right	37	0	0.000	13	50	0	0.000	0	50	0	0.000	2	0	39	0	0.000	13	52	0	0.000	0	52	0	0.000
EB Left	3	0	0.002	2	5	0	0.003	0	5	0	0.003	0	0	3	0	0.002	2	5	0	0.003	0	5	0	0.003
EB Thru	0	1600	0.035 *	0	0	1600	0.043 *	0	0	1600	0.043 *	0	0	0	1600	0.036 *	0	0	1600	0.044 *	0	0	1600	0.044 *
EB Right	53	0	0.000	11	64	0	0.000	0	64	0	0.000	2	0	55	0	0.000	11	66	0	0.000	0	66	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.770				0.780				0.780					0.829				0.839				0.839
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turn 3-7 PM

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 30th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU14

Pacific Coast Highway @ 30th Street
Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *	0	0	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *
NB Thru	1389	4800	0.289	62	1451	4800	0.302	0	1451	4800	0.302	56	193	1638	4800	0.341	62	1700	4800	0.354	0	1700	4800	0.354
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Thru	2438	4800	0.510 *	14	2452	4800	0.514 *	0	2452	4800	0.514 *	99	242	2779	4800	0.581 *	14	2793	4800	0.585 *	0	2793	4800	0.585 *
SB Right	10	0	0.000	3	13	0	0.000	0	13	0	0.000	0	0	10	0	0.000	3	13	0	0.000	0	13	0	0.000
EB Left	4	0	0.003	12	16	0	0.010	0	16	0	0.010	0	0	4	0	0.003	12	16	0	0.010	0	16	0	0.010
EB Thru	0	1600	0.041 *	0	0	1600	0.058 *	0	0	1600	0.058 *	0	0	0	1600	0.043 *	0	0	1600	0.059 *	0	0	1600	0.059 *
EB Right	62	0	0.000	14	76	0	0.000	0	76	0	0.000	3	0	65	0	0.000	14	79	0	0.000	0	79	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.654				0.674				0.674					0.727				0.747				0.747
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	22	0	0	67	82	3060	18	49	938	75
Future Vol, veh/h	0	0	22	0	0	67	82	3060	18	49	938	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	6	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	50	-	65
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	23	0	0	70	85	3188	19	51	977	78

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2525	4456	495	3861	4447	1603	977	0	0	3206	0	0
Stage 1	1079	1079	-	3368	3368	-	-	-	-	-	-	-
Stage 2	1446	3377	-	493	1079	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	30	1	445	4	1	81	402	-	-	~ 29	-	-
Stage 1	175	293	-	4	19	-	-	-	-	-	-	-
Stage 2	123	19	-	481	293	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	3	1	443	3	1	81	400	-	-	~ 29	-	-
Mov Cap-2 Maneuver	3	1	-	3	1	-	-	-	-	-	-	-
Stage 1	138	293	-	3	15	-	-	-	-	-	-	-
Stage 2	13	15	-	454	293	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	153.2	0.4	30.3
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	400	-	-	443	81	~ 29	-	-
HCM Lane V/C Ratio	0.214	-	-	0.052	0.862	1.76	-	-
HCM Control Delay (s)	16.4	-	-	13.6	153.2	$ 657.3	-	-
HCM Lane LOS	C	-	-	B	F	F	-	-
HCM 95th %tile Q(veh)	0.8	-	-	0.2	4.5	6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	11.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	148	0	0	52	20	1416	24	3	2523	16
Future Vol, veh/h	0	0	148	0	0	52	20	1416	24	3	2523	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	44	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	50	-	-	50	-	65
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	98	90	98	90	98	98	98	98	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	164	0	0	53	22	1445	24	3	2574	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3203	4095	1331	2538	4083	735	2574	0	0	1469	0	0
Stage 1	2581	2581	-	1502	1502	-	-	-	-	-	-	-
Stage 2	622	1514	-	1036	2581	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	11	2	~ 124	29	2	311	63	-	-	231	-	-
Stage 1	14	52	-	88	183	-	-	-	-	-	-	-
Stage 2	402	181	-	223	52	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	7	1	~ 119	-	1	311	61	-	-	231	-	-
Mov Cap-2 Maneuver	7	1	-	-	1	-	-	-	-	-	-	-
Stage 1	9	51	-	56	117	-	-	-	-	-	-	-
Stage 2	213	116	-	-	51	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	283		1.4	0
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	61	-	-	119	-	231	-	-
HCM Lane V/C Ratio	0.364	-	-	1.382	-	0.013	-	-
HCM Control Delay (s)	94.6	-	-	283	-	20.8	-	-
HCM Lane LOS	F	-	-	F	-	C	-	-
HCM 95th %tile Q(veh)	1.3	-	-	11.2	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	15.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	22	0	0	70	82	3337	19	51	1099	75
Future Vol, veh/h	0	0	22	0	0	70	82	3337	19	51	1099	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	6	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	50	-	65
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	23	0	0	73	85	3476	20	53	1145	78

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2812	4918	578	4221	4908	1748	1145	0	0	3496	0	0
Stage 1	1251	1251	-	3657	3657	-	-	-	-	-	-	-
Stage 2	1561	3667	-	564	1251	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	19	1	393	2	1	~ 64	333	-	-	~ 21	-	-
Stage 1	133	242	-	2	13	-	-	-	-	-	-	-
Stage 2	104	13	-	436	242	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	1	391	2	1	~ 64	331	-	-	~ 21	-	-
Mov Cap-2 Maneuver	-	1	-	2	1	-	-	-	-	-	-	-
Stage 1	99	242	-	1	10	-	-	-	-	-	-	-
Stage 2	-	10	-	408	242	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	265.3	0.5	45
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	331	-	-	391	64	~ 21	-	-
HCM Lane V/C Ratio	0.258	-	-	0.059	1.139	2.53	-	-
HCM Control Delay (s)	19.6	-	-	14.8	265.3	$ 1080.6	-	-
HCM Lane LOS	C	-	-	B	F	F	-	-
HCM 95th %tile Q(veh)	1	-	-	0.2	5.8	6.9	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	16.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	148	0	0	54	20	1664	25	3	2867	16
Future Vol, veh/h	0	0	148	0	0	54	20	1664	25	3	2867	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	44	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	50	-	-	50	-	65
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	98	90	98	90	98	98	98	98	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	164	0	0	55	22	1698	26	3	2926	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3656	4700	1507	2931	4687	862	2926	0	0	1723	0	0
Stage 1	2932	2932	-	1755	1755	-	-	-	-	-	-	-
Stage 2	724	1768	-	1176	2932	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	5	1	~ 94	16	1	256	41	-	-	173	-	-
Stage 1	8	33	-	58	137	-	-	-	-	-	-	-
Stage 2	348	135	-	182	33	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	2	0	~ 91	-	0	256	39	-	-	173	-	-
Mov Cap-2 Maneuver	2	0	-	-	0	-	-	-	-	-	-	-
Stage 1	3	32	-	25	60	-	-	-	-	-	-	-
Stage 2	119	59	-	-	32	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 481.4		2.3	0
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	39	-	-	91	-	173	-	-
HCM Lane V/C Ratio	0.57	-	-	1.807	-	0.018	-	-
HCM Control Delay (s)	182.3	-	-	$ 481.4	-	26.2	-	-
HCM Lane LOS	F	-	-	F	-	D	-	-
HCM 95th %tile Q(veh)	2	-	-	13.7	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Keats Street

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Keats Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU15

Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000	82	82	1600	0.051	0	82	1600	0.051	0	0	0	0	0.000	82	82	1600	0.051	0	82	1600	0.051
NB Thru	3038	4800	0.637 *	22	3060	4800	0.641 *	0	3060	4800	0.641 *	123	154	3315	4800	0.695 *	22	3337	4800	0.699 *	0	3337	4800	0.699 *
NB Right	18	0	0.000	0	18	0	0.000	0	18	0	0.000	1	0	19	0	0.000	0	19	0	0.000	0	19	0	0.000
SB Left [3]	49	1600	0.031 *	0	49	1600	0.031 *	0	49	1600	0.031 *	2	0	51	1600	0.032 *	0	51	1600	0.032 *	0	51	1600	0.032 *
SB Thru	936	4800	0.195	2	938	4800	0.195	0	938	4800	0.195	38	123	1097	4800	0.229	2	1099	4800	0.229	0	1099	4800	0.229
SB Right	0	0	0.000	75	75	1600	0.047	0	75	1600	0.047	0	0	0	0	0.000	75	75	1600	0.047	0	75	1600	0.047
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	1600	0.014	0	0	1600	0.014	0	0	0	0	0.000	0	0	1600	0.014	0	0	1600	0.014
EB Right	0	0	0.000	22	22	0	0.000	0	22	0	0.000	0	0	0	0	0.000	22	22	0	0.000	0	22	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	1600	0.042 *	0	0	1600	0.042 *	0	0	1600	0.042 *	0	0	0	1600	0.044 *	0	0	1600	0.044 *	0	0	1600	0.044 *
WB Right	67	0	0.000	0	67	0	0.000	0	67	0	0.000	3	0	70	0	0.000	0	70	0	0.000	0	70	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.809				0.814				0.814					0.870				0.875				0.875
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Keats Street

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Keats Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU15

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	20	20	1600	0.013 *	0	20	1600	0.013 *	0	0	0	0	0.000 *	20	20	1600	0.013 *	0	20	1600	0.013 *
NB Thru	1354	4800	0.287	62	1416	4800	0.300	0	1416	4800	0.300	55	193	1602	4800	0.339	62	1664	4800	0.352	0	1664	4800	0.352
NB Right	24	0	0.000	0	24	0	0.000	0	24	0	0.000	1	0	25	0	0.000	0	25	0	0.000	0	25	0	0.000
SB Left [3]	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002	0	0	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002
SB Thru	2511	4800	0.523 *	12	2523	4800	0.526 *	0	2523	4800	0.526 *	102	242	2855	4800	0.595 *	12	2867	4800	0.597 *	0	2867	4800	0.597 *
SB Right	0	0	0.000	16	16	1600	0.010	0	16	1600	0.010	0	0	0	0	0.000	16	16	1600	0.010	0	16	1600	0.010
EB Left	0	0	0.000 *	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000 *	0	0	0	0.000	0	0	0	0.000
EB Thru	0	0	0.000	0	0	1600	0.093 *	0	0	1600	0.093 *	0	0	0	0	0.000	0	0	1600	0.093 *	0	0	1600	0.093 *
EB Right	0	0	0.000	148	148	0	0.000	0	148	0	0.000	0	0	0	0	0.000	148	148	0	0.000	0	148	0	0.000
WB Left	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	1600	0.033 *	0	0	1600	0.033	0	0	1600	0.033	0	0	0	1600	0.034 *	0	0	1600	0.034	0	0	1600	0.034
WB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	2	0	54	0	0.000	0	54	0	0.000	0	54	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.656				0.731				0.731					0.729				0.802				0.802
LOS			B				C				C					C				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	39	3038	6	9	34	969
Future Vol, veh/h	0	39	3038	6	9	34	969
Conflicting Peds, #/hr	0	0	0	4	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	40	3132	6	9	35	999

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	3623	1569	0	0	2331	3138	0
Stage 1	3135	-	-	-	-	-	-
Stage 2	488	-	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.64	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	2.32	3.12	-
Pot Cap-1 Maneuver	11	85	-	-	78	~ 32	-
Stage 1	10	-	-	-	-	-	-
Stage 2	532	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	11	85	-	-	34	~ 34	-
Mov Cap-2 Maneuver	11	-	-	-	-	-	-
Stage 1	10	-	-	-	-	-	-
Stage 2	530	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	80.7	0	18.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	85	~ 34	-
HCM Lane V/C Ratio	-	-	0.473	1.304	-
HCM Control Delay (s)	-	-	80.7	$ 444.6	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	2	4.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	7	50	1317	17	62	58	2545
Future Vol, veh/h	7	50	1317	17	62	58	2545
Conflicting Peds, #/hr	0	0	0	14	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	7	51	1344	17	63	59	2597

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	2637	681	0	0	1045	1361	0
Stage 1	1353	-	-	-	-	-	-
Stage 2	1284	-	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.64	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	2.32	3.12	-
Pot Cap-1 Maneuver	42	337	-	-	415	261	-
Stage 1	146	-	-	-	-	-	-
Stage 2	200	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	42	337	-	-	302	302	-
Mov Cap-2 Maneuver	42	-	-	-	-	-	-
Stage 1	146	-	-	-	-	-	-
Stage 2	198	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34	0	1.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	181	302	-
HCM Lane V/C Ratio	-	-	0.321	0.405	-
HCM Control Delay (s)	-	-	34	24.9	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.3	1.9	-

Intersection	
Int Delay, s/veh	14.3

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	5	43	3309	6	9	39	1127
Future Vol, veh/h	5	43	3309	6	9	39	1127
Conflicting Peds, #/hr	0	0	0	4	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	5	44	3411	6	9	40	1162

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	3978	1709	0	0	2539	3418	0
Stage 1	3414	-	-	-	-	-	-
Stage 2	564	-	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.64	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	2.32	3.12	-
Pot Cap-1 Maneuver	7	68	-	-	59	~ 23	-
Stage 1	6	-	-	-	-	-	-
Stage 2	486	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	7	68	-	-	23	~ 23	-
Mov Cap-2 Maneuver	7	-	-	-	-	-	-
Stage 1	6	-	-	-	-	-	-
Stage 2	484	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 451.9	0	36.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	36	~ 23	-
HCM Lane V/C Ratio	-	-	1.375	2.152	-
HCM Control Delay (s)	-	-	$ 451.9	$ 898.7	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	5.2	6.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	24	60	1555	18	62	69	2877
Future Vol, veh/h	24	60	1555	18	62	69	2877
Conflicting Peds, #/hr	0	0	0	14	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	24	61	1587	18	63	70	2936

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	3038	803	0	0	1233	1605	0
Stage 1	1596	-	-	-	-	-	-
Stage 2	1442	-	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.64	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	2.32	3.12	-
Pot Cap-1 Maneuver	25	280	-	-	326	198	-
Stage 1	103	-	-	-	-	-	-
Stage 2	164	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	25	280	-	-	222	222	-
Mov Cap-2 Maneuver	25	-	-	-	-	-	-
Stage 1	103	-	-	-	-	-	-
Stage 2	162	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	267	0	1.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	72	222	-
HCM Lane V/C Ratio	-	-	1.19	0.602	-
HCM Control Delay (s)	-	-	267	43.2	-
HCM Lane LOS	-	-	F	E	-
HCM 95th %tile Q(veh)	-	-	6.6	3.5	-

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Gould Avenue-Artesia Boulevard

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Gould Avenue-Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	46	1600	0.029	0	46	1600	0.029	0	46	1600	0.029	2	0	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030
NB Thru	2299	4800	0.479 *	55	2354	4800	0.490 *	0	2354	4800	0.490 *	93	105	2497	4800	0.520 *	55	2552	4800	0.532 *	0	2552	4800	0.532 *
NB Right	154	1600	0.096	0	154	1600	0.096	0	154	1600	0.096	6	42	202	1600	0.126	0	202	1600	0.126	0	202	1600	0.126
SB Left	176	2880	0.061 *	6	182	2880	0.063 *	0	182	2880	0.063 *	7	29	212	2880	0.074 *	6	218	2880	0.076 *	0	218	2880	0.076 *
SB Thru	706	4800	0.156	8	714	4800	0.158	0	714	4800	0.158	29	88	823	4800	0.182	8	831	4800	0.184	0	831	4800	0.184
SB Right	45	0	0.000	1	46	0	0.000	0	46	0	0.000	2	4	51	0	0.000	1	52	0	0.000	0	52	0	0.000
EB Left	92	1600	0.058 *	0	92	1600	0.058 *	0	92	1600	0.058 *	4	9	105	1600	0.066 *	0	105	1600	0.066 *	0	105	1600	0.066 *
EB Thru	363	3200	0.135	0	363	3200	0.135	0	363	3200	0.135	15	19	397	3200	0.147	0	397	3200	0.147	0	397	3200	0.147
EB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	3	0	72	0	0.000	0	72	0	0.000	0	72	0	0.000
WB Left	282	2880	0.098	0	282	2880	0.098	0	282	2880	0.098	11	61	354	2880	0.123	0	354	2880	0.123	0	354	2880	0.123
WB Thru	506	3200	0.158	0	506	3200	0.158	0	506	3200	0.158	21	28	555	3200	0.173	0	555	3200	0.173	0	555	3200	0.173
WB Right [3]	592	1600	0.309 *	40	632	1600	0.332 *	0	632	1600	0.332 *	24	44	660	1600	0.339 *	40	700	1600	0.362 *	0	700	1600	0.362 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.006				1.043				1.043					1.098				1.135				1.135
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Gould Avenue-Artesia Boulevard

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Gould Avenue-Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	0	40	1600	0.025 *	0	40	1600	0.025 *	2	0	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *
NB Thru	993	4800	0.207	11	1004	4800	0.209	0	1004	4800	0.209	40	140	1173	4800	0.244	11	1184	4800	0.247	0	1184	4800	0.247
NB Right	265	1600	0.166	0	265	1600	0.166	0	265	1600	0.166	11	109	385	1600	0.241	0	385	1600	0.241	0	385	1600	0.241
SB Left	481	2880	0.167	38	519	2880	0.180	0	519	2880	0.180	20	58	559	2880	0.194	38	597	2880	0.207	0	597	2880	0.207
SB Thru	1893	4800	0.408 *	52	1945	4800	0.421 *	0	1945	4800	0.421 *	77	177	2147	4800	0.465 *	52	2199	4800	0.477 *	0	2199	4800	0.477 *
SB Right	66	0	0.000	9	75	0	0.000	0	75	0	0.000	3	14	83	0	0.000	9	92	0	0.000	0	92	0	0.000
EB Left	67	1600	0.042	0	67	1600	0.042	0	67	1600	0.042	3	15	85	1600	0.053	0	85	1600	0.053	0	85	1600	0.053
EB Thru	404	3200	0.143 *	0	404	3200	0.143 *	0	404	3200	0.143 *	16	45	465	3200	0.163 *	0	465	3200	0.163 *	0	465	3200	0.163 *
EB Right	53	0	0.000	0	53	0	0.000	0	53	0	0.000	2	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
WB Left	268	2880	0.093 *	0	268	2880	0.093 *	0	268	2880	0.093 *	11	107	386	2880	0.134 *	0	386	2880	0.134 *	0	386	2880	0.134 *
WB Thru	346	3200	0.108	0	346	3200	0.108	0	346	3200	0.108	14	39	399	3200	0.125	0	399	3200	0.125	0	399	3200	0.125
WB Right [3]	274	1600	0.004	8	282	1600	0.000	0	282	1600	0.000	11	48	333	1600	0.014	8	341	1600	0.006	0	341	1600	0.006
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.769				0.782				0.782					0.887				0.900				0.900
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 21st Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU18

Pacific Coast Highway @ 21st Street
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	42	1600	0.026	0	42	1600	0.026	0	42	1600	0.026	2	0	44	1600	0.028	0	44	1600	0.028	0	44	1600	0.028
NB Thru	2477	4800	0.523 *	55	2532	4800	0.534 *	0	2532	4800	0.534 *	101	147	2725	4800	0.575 *	55	2780	4800	0.586 *	0	2780	4800	0.586 *
NB Right	33	0	0.000	0	33	0	0.000	0	33	0	0.000	1	0	34	0	0.000	0	34	0	0.000	0	34	0	0.000
SB Left	20	1600	0.013 *	0	20	1600	0.013 *	0	20	1600	0.013 *	1	5	26	1600	0.016 *	0	26	1600	0.016 *	0	26	1600	0.016 *
SB Thru	897	4800	0.190	8	905	4800	0.191	0	905	4800	0.191	36	145	1078	4800	0.228	8	1086	4800	0.229	0	1086	4800	0.229
SB Right	14	0	0.000	0	14	0	0.000	0	14	0	0.000	1	0	15	0	0.000	0	15	0	0.000	0	15	0	0.000
EB Left	54	0	0.034 *	0	54	0	0.034 *	0	54	0	0.034 *	2	0	56	0	0.035 *	0	56	0	0.035 *	0	56	0	0.035 *
EB Thru	84	1600	0.094	0	84	1600	0.094	0	84	1600	0.094	3	0	87	1600	0.098	0	87	1600	0.098	0	87	1600	0.098
EB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
WB Left	75	0	0.047	0	75	0	0.047	0	75	0	0.047	3	0	78	0	0.049	0	78	0	0.049	0	78	0	0.049
WB Thru	92	1600	0.144 *	0	92	1600	0.144 *	0	92	1600	0.144 *	4	0	96	1600	0.154 *	0	96	1600	0.154 *	0	96	1600	0.154 *
WB Right	63	0	0.000	0	63	0	0.000	0	63	0	0.000	3	6	72	0	0.000	0	72	0	0.000	0	72	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.813				0.824				0.824					0.880				0.891				0.891
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
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INTERSECTION CAPACITY UTILIZATION

Pacific Coast Highway @ 21st Street

N-S St: Pacific Coast Highway
E-W St: 21st Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU18

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	31	1600	0.019 *	0	31	1600	0.019 *	0	31	1600	0.019 *	1	0	32	1600	0.020 *	0	32	1600	0.020 *	0	32	1600	0.020 *
NB Thru	1245	4800	0.265	11	1256	4800	0.267	0	1256	4800	0.267	51	240	1536	4800	0.325	11	1547	4800	0.328	0	1547	4800	0.328
NB Right	25	0	0.000	0	25	0	0.000	0	25	0	0.000	1	0	26	0	0.000	0	26	0	0.000	0	26	0	0.000
SB Left	74	1600	0.046	0	74	1600	0.046	0	74	1600	0.046	3	20	97	1600	0.061	0	97	1600	0.061	0	97	1600	0.061
SB Thru	2074	4800	0.448 *	52	2126	4800	0.459 *	0	2126	4800	0.459 *	84	270	2428	4800	0.522 *	52	2480	4800	0.533 *	0	2480	4800	0.533 *
SB Right	76	0	0.000	0	76	0	0.000	0	76	0	0.000	3	0	79	0	0.000	0	79	0	0.000	0	79	0	0.000
EB Left	21	0	0.013 *	0	21	0	0.013 *	0	21	0	0.013 *	1	0	22	0	0.014 *	0	22	0	0.014 *	0	22	0	0.014 *
EB Thru	47	1600	0.051	0	47	1600	0.051	0	47	1600	0.051	2	0	49	1600	0.053	0	49	1600	0.053	0	49	1600	0.053
EB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
WB Left	33	0	0.021	0	33	0	0.021	0	33	0	0.021	1	0	34	0	0.021	0	34	0	0.021	0	34	0	0.021
WB Thru	56	1600	0.081 *	0	56	1600	0.081 *	0	56	1600	0.081 *	2	0	58	1600	0.099 *	0	58	1600	0.099 *	0	58	1600	0.099 *
WB Right	41	0	0.000	0	41	0	0.000	0	41	0	0.000	2	23	66	0	0.000	0	66	0	0.000	0	66	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.662				0.673				0.673					0.755				0.766				0.766
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 16th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU19

Pacific Coast Highway @ 16th Street
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044	3	0	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046
NB Thru	2311	4800	0.488 *	55	2366	4800	0.499 *	0	2366	4800	0.499 *	94	147	2552	4800	0.538 *	55	2607	4800	0.550 *	0	2607	4800	0.550 *
NB Right	30	0	0.000	0	30	0	0.000	0	30	0	0.000	1	0	31	0	0.000	0	31	0	0.000	0	31	0	0.000
SB Left	7	1600	0.004 *	0	7	1600	0.004 *	0	7	1600	0.004 *	0	0	7	1600	0.004 *	0	7	1600	0.004 *	0	7	1600	0.004 *
SB Thru	813	4800	0.169	8	821	4800	0.171	0	821	4800	0.171	33	145	991	4800	0.206	8	999	4800	0.208	0	999	4800	0.208
SB Right	159	1600	0.099	0	159	1600	0.099	0	159	1600	0.099	6	0	165	1600	0.103	0	165	1600	0.103	0	165	1600	0.103
EB Left [3]	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	3	0	82	1600	0.051 *	0	82	1600	0.051 *	0	82	1600	0.051 *
EB Thru [3]	2	0	0.000	0	2	0	0.000	0	2	0	0.000	0	0	2	0	0.000	0	2	0	0.000	0	2	0	0.000
EB Right [3]	52	1600	0.033	0	52	1600	0.033	0	52	1600	0.033	2	0	54	1600	0.034	0	54	1600	0.034	0	54	1600	0.034
WB Left [3]	29	0	0.018	0	29	0	0.018	0	29	0	0.018	1	0	30	0	0.019	0	30	0	0.019	0	30	0	0.019
WB Thru [3]	2	1600	0.035 *	0	2	1600	0.035 *	0	2	1600	0.035 *	0	0	2	1600	0.036 *	0	2	1600	0.036 *	0	2	1600	0.036 *
WB Right [3]	25	0	0.000	0	25	0	0.000	0	25	0	0.000	1	0	26	0	0.000	0	26	0	0.000	0	26	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.676				0.688				0.688					0.730				0.741				0.741
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Split-phase operation.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 16th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU19

Pacific Coast Highway @ 16th Street
Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	89	1600	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *	4	0	93	1600	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *
NB Thru	1026	4800	0.218	11	1037	4800	0.220	0	1037	4800	0.220	42	240	1308	4800	0.277	11	1319	4800	0.279	0	1319	4800	0.279
NB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
SB Left	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003	0	0	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003
SB Thru	1884	4800	0.393 *	52	1936	4800	0.403 *	0	1936	4800	0.403 *	76	270	2230	4800	0.465 *	52	2282	4800	0.475 *	0	2282	4800	0.475 *
SB Right	271	1600	0.169	0	271	1600	0.169	0	271	1600	0.169	11	0	282	1600	0.176	0	282	1600	0.176	0	282	1600	0.176
EB Left [3]	167	1600	0.104 *	0	167	1600	0.104 *	0	167	1600	0.104 *	7	0	174	1600	0.109 *	0	174	1600	0.109 *	0	174	1600	0.109 *
EB Thru [3]	4	0	0.000	0	4	0	0.000	0	4	0	0.000	0	0	4	0	0.000	0	4	0	0.000	0	4	0	0.000
EB Right [3]	112	1600	0.070	0	112	1600	0.070	0	112	1600	0.070	5	0	117	1600	0.073	0	117	1600	0.073	0	117	1600	0.073
WB Left [3]	27	0	0.017	0	27	0	0.017	0	27	0	0.017	1	0	28	0	0.018	0	28	0	0.018	0	28	0	0.018
WB Thru [3]	0	1600	0.019 *	0	0	1600	0.019 *	0	0	1600	0.019 *	0	0	0	1600	0.020 *	0	0	1600	0.020 *	0	0	1600	0.020 *
WB Right [3]	4	0	0.000	0	4	0	0.000	0	4	0	0.000	0	0	4	0	0.000	0	4	0	0.000	0	4	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.672				0.683				0.683					0.751				0.762				0.762
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Split-phase operation.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: Pier Avenue-14th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU20

Pacific Coast Highway @ Pier Avenue-14th Street
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	329	2880	0.114	0	329	2880	0.114	0	329	2880	0.114	13	19	361	2880	0.125	0	361	2880	0.125	0	361	2880	0.125
NB Thru	2247	4800	0.470 *	51	2298	4800	0.481 *	0	2298	4800	0.481 *	91	134	2472	4800	0.517 *	51	2523	4800	0.528 *	0	2523	4800	0.528 *
NB Right	9	0	0.000	0	9	0	0.000	0	9	0	0.000	0	0	9	0	0.000	0	9	0	0.000	0	9	0	0.000
SB Left	0	1600	0.000 *	0	0	1600	0.000 *	0	0	1600	0.000 *	0	0	0	1600	0.000 *	0	0	1600	0.000 *	0	0	1600	0.000 *
SB Thru	809	4800	0.195	7	816	4800	0.196	0	816	4800	0.196	33	126	968	4800	0.233	7	975	4800	0.235	0	975	4800	0.235
SB Right	126	0	0.000	1	127	0	0.000	0	127	0	0.000	5	20	151	0	0.000	1	152	0	0.000	0	152	0	0.000
EB Left	247	2880	0.086 *	4	251	2880	0.087 *	0	251	2880	0.087 *	10	13	270	2880	0.094 *	4	274	2880	0.095 *	0	274	2880	0.095 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right [3,4]	186	1600	0.002	0	186	1600	0.002	0	186	1600	0.002	8	12	206	1600	0.003	0	206	1600	0.003	0	206	1600	0.003
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right [4]	3	1600	0.002 *	0	3	1600	0.002 *	0	3	1600	0.002 *	0	0	3	1600	0.002 *	0	3	1600	0.002 *	0	3	1600	0.002 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.658				0.670				0.670					0.713				0.725				0.725
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The eastbound right-turn lane has an overlapping phase with northbound left-turn phase.
4 No right-turn on red 6-9 AM and 3-7 PM.

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INTERSECTION CAPACITY UTILIZATION

Pacific Coast Highway @ Pier Avenue-14th Street

N-S St: Pacific Coast Highway
E-W St: Pier Avenue-14th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU20

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	331	2880	0.115 *	0	331	2880	0.115 *	0	331	2880	0.115 *	13	17	361	2880	0.125 *	0	361	2880	0.125 *	0	361	2880	0.125 *
NB Thru	971	4800	0.205	11	982	4800	0.207	0	982	4800	0.207	39	219	1229	4800	0.259	11	1240	4800	0.261	0	1240	4800	0.261
NB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
SB Left	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003	0	0	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003
SB Thru	1846	4800	0.414 *	48	1894	4800	0.425 *	0	1894	4800	0.425 *	75	251	2172	4800	0.488 *	48	2220	4800	0.498 *	0	2220	4800	0.498 *
SB Right	143	0	0.000	3	146	0	0.000	0	146	0	0.000	6	20	169	0	0.000	3	172	0	0.000	0	172	0	0.000
EB Left	189	2880	0.066 *	1	190	2880	0.066 *	0	190	2880	0.066 *	8	21	218	2880	0.076 *	1	219	2880	0.076 *	0	219	2880	0.076 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right [3,4]	286	1600	0.064	0	286	1600	0.064	0	286	1600	0.064	12	18	316	1600	0.072	0	316	1600	0.072	0	316	1600	0.072
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right [4]	20	1600	0.013 *	0	20	1600	0.013 *	0	20	1600	0.013 *	1	0	21	1600	0.013 *	0	21	1600	0.013 *	0	21	1600	0.013 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.707				0.718				0.718					0.802				0.813				0.813
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The eastbound right-turn lane has an overlapping phase with northbound left-turn phase.
4 No right-turn on red 6-9 AM and 3-7 PM.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: Aviation Boulevard-10th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU21

Pacific Coast Highway @ Aviation Boulevard-10th Street
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	5	1600	0.003	0	5	1600	0.003	0	5	1600	0.003	0	0	5	1600	0.003	0	5	1600	0.003	0	5	1600	0.003
NB Thru	2363	4800	0.492 *	51	2414	4800	0.503 *	0	2414	4800	0.503 *	96	145	2604	4800	0.543 *	51	2655	4800	0.553 *	0	2655	4800	0.553 *
NB Right	767	1600	0.479	0	767	1600	0.479	0	767	1600	0.479	31	16	814	1600	0.509	0	814	1600	0.509	0	814	1600	0.509
SB Left	179	1600	0.112 *	0	179	1600	0.112 *	0	179	1600	0.112 *	7	5	191	1600	0.119 *	0	191	1600	0.119 *	0	191	1600	0.119 *
SB Thru	686	4800	0.143	7	693	4800	0.145	0	693	4800	0.145	28	133	847	4800	0.177	7	854	4800	0.178	0	854	4800	0.178
SB Right	1	0	0.000	0	1	0	0.000	0	1	0	0.000	0	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000
EB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *	0	0	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *
WB Left	655	0	0.205 *	0	655	0	0.205 *	0	655	0	0.205 *	27	20	702	0	0.219 *	0	702	0	0.219 *	0	702	0	0.219 *
WB Thru	1	3200	0.205	0	1	3200	0.205	0	1	3200	0.205	0	0	1	3200	0.220	0	1	3200	0.220	0	1	3200	0.220
WB Right [3,4]	296	1600	0.073	0	296	1600	0.073	0	296	1600	0.073	12	8	316	1600	0.078	0	316	1600	0.078	0	316	1600	0.078
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.912				0.923				0.923					0.984				0.995				0.995
LOS			E				E				E					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
4 No right-turn on red.

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INTERSECTION CAPACITY UTILIZATION

Pacific Coast Highway @ Aviation Boulevard-10th Street

N-S St: Pacific Coast Highway
E-W St: Aviation Boulevard-10th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU21

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006	0	0	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006
NB Thru	1004	4800	0.209	11	1015	4800	0.211	0	1015	4800	0.211	41	229	1274	4800	0.265	11	1285	4800	0.268	0	1285	4800	0.268
NB Right	564	1600	0.353 *	0	564	1600	0.353 *	0	564	1600	0.353 *	23	39	626	1600	0.391 *	0	626	1600	0.391 *	0	626	1600	0.391 *
SB Left	291	1600	0.182 *	0	291	1600	0.182 *	0	291	1600	0.182 *	12	7	310	1600	0.194 *	0	310	1600	0.194 *	0	310	1600	0.194 *
SB Thru	1839	4800	0.383	48	1887	4800	0.393	0	1887	4800	0.393	75	262	2176	4800	0.453	48	2224	4800	0.463	0	2224	4800	0.463
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right	1	1600	0.001	0	1	1600	0.001	0	1	1600	0.001	0	0	1	1600	0.001	0	1	1600	0.001	0	1	1600	0.001
WB Left	622	0	0.194	0	622	0	0.194	0	622	0	0.194	25	35	682	0	0.213	0	682	0	0.213	0	682	0	0.213
WB Thru	18	3200	0.200 *	0	18	3200	0.200 *	0	18	3200	0.200 *	1	0	19	3200	0.219 *	0	19	3200	0.219 *	0	19	3200	0.219 *
WB Right [3,4]	244	1600	0.000	0	244	1600	0.000	0	244	1600	0.000	10	7	261	1600	0.000	0	261	1600	0.000	0	261	1600	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.834				0.834				0.834					0.904				0.904				0.904
LOS			D				D				D					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
4 No right-turn on red.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Prospect Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU22

Prospect Avenue @ Artesia Boulevard
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	179	0	0.112 *	4	183	0	0.114 *	0	183	0	0.114 *	7	3	189	0	0.118 *	4	193	0	0.121 *	0	193	0	0.121 *
NB Thru	76	1600	0.159	0	76	1600	0.162	0	76	1600	0.162	3	0	79	1600	0.168	0	79	1600	0.170	0	79	1600	0.170
NB Right	224	1600	0.140	0	224	1600	0.140	0	224	1600	0.140	9	5	238	1600	0.149	0	238	1600	0.149	0	238	1600	0.149
SB Left	27	0	0.017	0	27	0	0.017	0	27	0	0.017	1	5	33	0	0.021	0	33	0	0.021	0	33	0	0.021
SB Thru	49	1600	0.075 *	0	49	1600	0.075 *	0	49	1600	0.075 *	2	2	53	1600	0.083 *	0	53	1600	0.083 *	0	53	1600	0.083 *
SB Right	44	0	0.000	0	44	0	0.000	0	44	0	0.000	2	0	46	0	0.000	0	46	0	0.000	0	46	0	0.000
EB Left	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *	2	0	44	1600	0.028 *	0	44	1600	0.028 *	0	44	1600	0.028 *
EB Thru	655	3200	0.241	5	660	3200	0.243	0	660	3200	0.243	27	89	771	3200	0.279	5	776	3200	0.281	0	776	3200	0.281
EB Right	116	0	0.000	1	117	0	0.000	0	117	0	0.000	5	0	121	0	0.000	1	122	0	0.000	0	122	0	0.000
WB Left	125	1600	0.078	0	125	1600	0.078	0	125	1600	0.078	5	6	136	1600	0.085	0	136	1600	0.085	0	136	1600	0.085
WB Thru	1151	3200	0.386 *	36	1187	3200	0.397 *	0	1187	3200	0.397 *	47	140	1338	3200	0.445 *	36	1374	3200	0.456 *	0	1374	3200	0.456 *
WB Right	83	0	0.000	0	83	0	0.000	0	83	0	0.000	3	0	86	0	0.000	0	86	0	0.000	0	86	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.699				0.713				0.713					0.773				0.787				0.787
LOS			B				C				C					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Prospect Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU22

Prospect Avenue @ Artesia Boulevard
Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	98	0	0.061 *	1	99	0	0.062 *	0	99	0	0.062 *	4	6	108	0	0.068 *	1	109	0	0.068 *	0	109	0	0.068 *
NB Thru	40	1600	0.086	0	40	1600	0.087	0	40	1600	0.087	2	0	42	1600	0.094	0	42	1600	0.094	0	42	1600	0.094
NB Right	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033	2	20	75	1600	0.047	0	75	1600	0.047	0	75	1600	0.047
SB Left	50	0	0.031	0	50	0	0.031	0	50	0	0.031	2	17	69	0	0.043	0	69	0	0.043	0	69	0	0.043
SB Thru	97	1600	0.105 *	0	97	1600	0.105 *	0	97	1600	0.105 *	4	6	107	1600	0.124 *	0	107	1600	0.124 *	0	107	1600	0.124 *
SB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
EB Left	33	1600	0.021	0	33	1600	0.021	0	33	1600	0.021	1	0	34	1600	0.021	0	34	1600	0.021	0	34	1600	0.021
EB Thru	1072	3200	0.372 *	34	1106	3200	0.384 *	0	1106	3200	0.384 *	44	212	1328	3200	0.454 *	34	1362	3200	0.465 *	0	1362	3200	0.465 *
EB Right	119	0	0.000	3	122	0	0.000	0	122	0	0.000	5	0	124	0	0.000	3	127	0	0.000	0	127	0	0.000
WB Left	167	1600	0.104 *	0	167	1600	0.104 *	0	167	1600	0.104 *	7	23	197	1600	0.123 *	0	197	1600	0.123 *	0	197	1600	0.123 *
WB Thru	696	3200	0.229	8	704	3200	0.232	0	704	3200	0.232	28	210	934	3200	0.304	8	942	3200	0.307	0	942	3200	0.307
WB Right	38	0	0.000	0	38	0	0.000	0	38	0	0.000	2	0	40	0	0.000	0	40	0	0.000	0	40	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.743				0.755				0.755					0.868				0.880				0.880
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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(626) 796.2322 Fax (626) 792.0941

INTERSECTION CAPACITY UTILIZATION

N-S St: Prospect Avenue
E-W St: Aviation Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU23

Prospect Avenue @ Aviation Boulevard
Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	85	1600	0.053	0	85	1600	0.053	0	85	1600	0.053	3	0	88	1600	0.055	0	88	1600	0.055	0	88	1600	0.055
NB Thru	262	1600	0.164	4	266	1600	0.166	0	266	1600	0.166	11	1	274	1600	0.171	4	278	1600	0.174	0	278	1600	0.174
NB Right	345	1600	0.216 *	0	345	1600	0.216 *	0	345	1600	0.216 *	14	0	359	1600	0.224 *	0	359	1600	0.224 *	0	359	1600	0.224 *
SB Left	45	1600	0.028 *	0	45	1600	0.028 *	0	45	1600	0.028 *	2	0	47	1600	0.029 *	0	47	1600	0.029 *	0	47	1600	0.029 *
SB Thru	132	1600	0.083	1	133	1600	0.083	0	133	1600	0.083	5	1	138	1600	0.086	1	139	1600	0.087	0	139	1600	0.087
SB Right	46	1600	0.029	0	46	1600	0.029	0	46	1600	0.029	2	0	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030
EB Left	68	1600	0.043	0	68	1600	0.043	0	68	1600	0.043	3	0	71	1600	0.044	0	71	1600	0.044	0	71	1600	0.044
EB Thru	765	3200	0.249 *	0	765	3200	0.249 *	0	765	3200	0.249 *	31	21	817	3200	0.266 *	0	817	3200	0.266 *	0	817	3200	0.266 *
EB Right	32	0	0.000	0	32	0	0.000	0	32	0	0.000	1	0	33	0	0.000	0	33	0	0.000	0	33	0	0.000
WB Left	164	1600	0.103 *	0	164	1600	0.103 *	0	164	1600	0.103 *	7	0	171	1600	0.107 *	0	171	1600	0.107 *	0	171	1600	0.107 *
WB Thru	755	3200	0.255	0	755	3200	0.255	0	755	3200	0.255	31	28	814	3200	0.274	0	814	3200	0.274	0	814	3200	0.274
WB Right	60	0	0.000	0	60	0	0.000	0	60	0	0.000	2	0	62	0	0.000	0	62	0	0.000	0	62	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.695				0.695				0.695					0.726				0.726				0.726
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Prospect Avenue @ Aviation Boulevard
Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

N-S St: Prospect Avenue
E-W St: Aviation Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU23

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	3	0	82	1600	0.051 *	0	82	1600	0.051 *	0	82	1600	0.051 *
NB Thru	178	1600	0.111	1	179	1600	0.112	0	179	1600	0.112	7	3	188	1600	0.118	1	189	1600	0.118	0	189	1600	0.118
NB Right	231	1600	0.144	0	231	1600	0.144	0	231	1600	0.144	9	0	240	1600	0.150	0	240	1600	0.150	0	240	1600	0.150
SB Left	119	1600	0.074	0	119	1600	0.074	0	119	1600	0.074	5	0	124	1600	0.078	0	124	1600	0.078	0	124	1600	0.078
SB Thru	276	1600	0.173 *	3	279	1600	0.174 *	0	279	1600	0.174 *	11	3	290	1600	0.181 *	3	293	1600	0.183 *	0	293	1600	0.183 *
SB Right	41	1600	0.026	0	41	1600	0.026	0	41	1600	0.026	2	0	43	1600	0.027	0	43	1600	0.027	0	43	1600	0.027
EB Left	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033	2	0	55	1600	0.034	0	55	1600	0.034	0	55	1600	0.034
EB Thru	736	3200	0.257 *	0	736	3200	0.257 *	0	736	3200	0.257 *	30	46	812	3200	0.282 *	0	812	3200	0.282 *	0	812	3200	0.282 *
EB Right	87	0	0.000	0	87	0	0.000	0	87	0	0.000	4	0	91	0	0.000	0	91	0	0.000	0	91	0	0.000
WB Left	286	1600	0.179 *	0	286	1600	0.179 *	0	286	1600	0.179 *	12	0	298	1600	0.186 *	0	298	1600	0.186 *	0	298	1600	0.186 *
WB Thru	763	3200	0.253	0	763	3200	0.253	0	763	3200	0.253	31	42	836	3200	0.276	0	836	3200	0.276	0	836	3200	0.276
WB Right	45	0	0.000	0	45	0	0.000	0	45	0	0.000	2	0	47	0	0.000	0	47	0	0.000	0	47	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.758				0.760				0.760					0.801				0.803				0.803
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Meadows Avenue @ Artesia Boulevard

N-S St: Meadows Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU24

Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	74	0	0.046	0	74	0	0.046	0	74	0	0.046	3	0	77	0	0.048	0	77	0	0.048	0	77	0	0.048
SB Thru	0	1600	0.081 *	0	0	1600	0.081 *	0	0	1600	0.081 *	0	0	0	1600	0.084 *	0	0	1600	0.084 *	0	0	1600	0.084 *
SB Right	56	0	0.000	0	56	0	0.000	0	56	0	0.000	2	0	58	0	0.000	0	58	0	0.000	0	58	0	0.000
EB Left	99	1600	0.062 *	0	99	1600	0.062 *	0	99	1600	0.062 *	4	0	103	1600	0.064 *	0	103	1600	0.064 *	0	103	1600	0.064 *
EB Thru	835	3200	0.261	5	840	3200	0.263	0	840	3200	0.263	34	99	968	3200	0.303	5	973	3200	0.304	0	973	3200	0.304
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	1274	3200	0.447 *	36	1310	3200	0.458 *	0	1310	3200	0.458 *	52	145	1471	3200	0.511 *	36	1507	3200	0.522 *	0	1507	3200	0.522 *
WB Right	157	0	0.000	0	157	0	0.000	0	157	0	0.000	6	0	163	0	0.000	0	163	0	0.000	0	163	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.690				0.702				0.702					0.759				0.771				0.771
LOS			B				C				C					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Meadows Avenue @ Artesia Boulevard

N-S St: Meadows Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU24

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	152	0	0.095	0	152	0	0.095	0	152	0	0.095	6	0	158	0	0.099	0	158	0	0.099	0	158	0	0.099
SB Thru	0	1600	0.153 *	0	0	1600	0.153 *	0	0	1600	0.153 *	0	0	0	1600	0.159 *	0	0	1600	0.159 *	0	0	1600	0.159 *
SB Right	92	0	0.000	0	92	0	0.000	0	92	0	0.000	4	0	96	0	0.000	0	96	0	0.000	0	96	0	0.000
EB Left	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044	3	0	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046
EB Thru	1176	3200	0.368 *	34	1210	3200	0.378 *	0	1210	3200	0.378 *	48	250	1474	3200	0.461 *	34	1508	3200	0.471 *	0	1508	3200	0.471 *
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	909	3200	0.313	8	917	3200	0.315	0	917	3200	0.315	37	233	1179	3200	0.398	8	1187	3200	0.401	0	1187	3200	0.401
WB Right	92	0	0.000	0	92	0	0.000	0	92	0	0.000	4	0	96	0	0.000	0	96	0	0.000	0	96	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.620				0.631				0.631					0.719				0.730				0.730
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Peck Avenue-Ford Avenue @ Artesia Boulevard

N-S St: Peck Avenue-Ford Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU25

Peak hr: AM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	150	0	0.094	0	150	0	0.094	0	150	0	0.094	6	3	159	0	0.099	0	159	0	0.099	0	159	0	0.099
NB Thru	119	1600	0.174 *	0	119	1600	0.174 *	0	119	1600	0.174 *	5	0	124	1600	0.183 *	0	124	1600	0.183 *	0	124	1600	0.183 *
NB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
SB Left	81	0	0.051 *	0	81	0	0.051 *	0	81	0	0.051 *	3	14	98	0	0.061 *	0	98	0	0.061 *	0	98	0	0.061 *
SB Thru	24	1600	0.066	0	24	1600	0.066	0	24	1600	0.066	1	0	25	1600	0.077	0	25	1600	0.077	0	25	1600	0.077
SB Right	111	1600	0.069	0	111	1600	0.069	0	111	1600	0.069	5	0	116	1600	0.073	0	116	1600	0.073	0	116	1600	0.073
EB Left	145	1600	0.091 *	0	145	1600	0.091 *	0	145	1600	0.091 *	6	0	151	1600	0.094 *	0	151	1600	0.094 *	0	151	1600	0.094 *
EB Thru	699	3200	0.226	5	704	3200	0.228	0	704	3200	0.228	28	97	824	3200	0.266	5	829	3200	0.268	0	829	3200	0.268
EB Right	24	0	0.000	0	24	0	0.000	0	24	0	0.000	1	2	27	0	0.000	0	27	0	0.000	0	27	0	0.000
WB Left	26	1600	0.016	0	26	1600	0.016	0	26	1600	0.016	1	0	27	1600	0.017	0	27	1600	0.017	0	27	1600	0.017
WB Thru	1175	3200	0.397 *	36	1211	3200	0.408 *	0	1211	3200	0.408 *	48	142	1365	3200	0.464 *	36	1401	3200	0.475 *	0	1401	3200	0.475 *
WB Right	96	0	0.000	0	96	0	0.000	0	96	0	0.000	4	20	120	0	0.000	0	120	0	0.000	0	120	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.813				0.824				0.824					0.903				0.914				0.914
LOS			D				D				D					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Peck Avenue-Ford Avenue @ Artesia Boulevard

N-S St: Peck Avenue-Ford Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU25

Peak hr: PM
Annual Growth: 1.00%

Hermosa Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	55	0	0.034 *	0	55	0	0.034 *	0	55	0	0.034 *	2	6	63	0	0.039 *	0	63	0	0.039 *	0	63	0	0.039 *
NB Thru	34	1600	0.061	0	34	1600	0.061	0	34	1600	0.061	1	0	35	1600	0.066	0	35	1600	0.066	0	35	1600	0.066
NB Right	8	0	0.000	0	8	0	0.000	0	8	0	0.000	0	0	8	0	0.000	0	8	0	0.000	0	8	0	0.000
SB Left	51	0	0.032	0	51	0	0.032	0	51	0	0.032	2	38	91	0	0.057	0	91	0	0.057	0	91	0	0.057
SB Thru	44	1600	0.059 *	0	44	1600	0.059 *	0	44	1600	0.059 *	2	0	46	1600	0.086 *	0	46	1600	0.086 *	0	46	1600	0.086 *
SB Right	86	1600	0.054	0	86	1600	0.054	0	86	1600	0.054	3	0	89	1600	0.056	0	89	1600	0.056	0	89	1600	0.056
EB Left	81	1600	0.051	0	81	1600	0.051	0	81	1600	0.051	3	0	84	1600	0.053	0	84	1600	0.053	0	84	1600	0.053
EB Thru	1094	3200	0.368 *	34	1128	3200	0.378 *	0	1128	3200	0.378 *	44	244	1382	3200	0.460 *	34	1416	3200	0.471 *	0	1416	3200	0.471 *
EB Right	82	0	0.000	0	82	0	0.000	0	82	0	0.000	3	6	91	0	0.000	0	91	0	0.000	0	91	0	0.000
WB Left	62	1600	0.039 *	0	62	1600	0.039 *	0	62	1600	0.039 *	3	0	65	1600	0.041 *	0	65	1600	0.041 *	0	65	1600	0.041 *
WB Thru	846	3200	0.280	8	854	3200	0.282	0	854	3200	0.282	34	228	1108	3200	0.372	8	1116	3200	0.375	0	1116	3200	0.375
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	2	32	83	0	0.000	0	83	0	0.000	0	83	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.600				0.611				0.611					0.726				0.737				0.737
LOS			A				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

APPENDIX E-2

MANHATTAN BEACH PROJECTS ONLY
ICU AND LEVELS OF SERVICE EXPLANATION
HCM AND LEVELS OF SERVICE EXPLANATION
INTERSECTION LEVELS OF SERVICE DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing, The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics

Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

In the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board, 2000, level of service for unsignalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, in the absence of incidents, control, traffic, or geometric delay. Only the portion of total delay attributed to the traffic control measures, either traffic signals or stop signs, is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Level of Service criteria for unsignalized intersections are stated in terms of the average control delay per vehicle. The level of service is determined by the computed or measured control delay and is defined for each minor movement. Average control delay for any particular minor movement is a function of the service time for the approach and the degree of utilization. (Level of service is not defined for the intersection as a whole for two-way stop controlled intersections.)

Level of Service Criteria for TWSC/AWSC Intersections

Level of Service	Average Control Delay (Sec/Veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Level of Service (LOS) values are used to describe intersection operations with service levels varying from LOS A (free flow) to LOS F (jammed condition). The following descriptions summarize *HCM* criteria for each level of service:

LOS A describes operations with very low control delay, up to 10 seconds per vehicle.

LOS B describes operations with control delay greater than 10 and up to 15 seconds per vehicle.

LOS C describes operations with control delay greater than 15 and up to 25 seconds per vehicle.

LOS D describes operations with control delay greater than 25 and up to 35 seconds per vehicle.

LOS E describes operations with control delay greater than 35 and up to 50 seconds per vehicle.

LOS F describes operations with control delay in excess of 50 seconds per vehicle. For two-way stop controlled intersections, LOS F exists when there are insufficient gaps of suitable size to allow side-street demand to safely cross through a major-street traffic stream. This level of service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches.

Intersection	
Intersection Delay, s/veh	18.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	32	231	18	0	116	244	47	0	9	130	114
Future Vol, veh/h	0	32	231	18	0	116	244	47	0	9	130	114
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	257	20	0	129	271	52	0	10	144	127
Number of Lanes	0	0	1	1	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	20.1	18.8	17.4
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	4%	12%	0%	100%	0%	35%
Vol Thru, %	51%	88%	0%	0%	84%	59%
Vol Right, %	45%	0%	100%	0%	16%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	253	263	18	116	291	220
LT Vol	9	32	0	116	0	76
Through Vol	130	231	0	0	244	130
RT Vol	114	0	18	0	47	14
Lane Flow Rate	281	292	20	129	323	244
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.53	0.6	0.037	0.273	0.629	0.487
Departure Headway (Hd)	6.792	7.394	6.61	7.634	7.004	7.171
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	528	485	538	468	514	499
Service Time	4.876	5.177	4.393	5.417	4.786	5.259
HCM Lane V/C Ratio	0.532	0.602	0.037	0.276	0.628	0.489
HCM Control Delay	17.4	20.8	9.7	13.3	21	17
HCM Lane LOS	C	C	A	B	C	C
HCM 95th-tile Q	3.1	3.9	0.1	1.1	4.3	2.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	76	130	14
Future Vol, veh/h	0	76	130	14
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	84	144	16
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	17
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	26.9
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	17	256	24	0	116	237	39	0	21	89	82
Future Vol, veh/h	0	17	256	24	0	116	237	39	0	21	89	82
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	264	25	0	120	244	40	0	22	92	85
Number of Lanes	0	0	1	1	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	22.1	19.5	16.1
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	11%	6%	0%	100%	0%	20%
Vol Thru, %	46%	94%	0%	0%	86%	72%
Vol Right, %	43%	0%	100%	0%	14%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	192	273	24	116	276	437
LT Vol	21	17	0	116	0	89
Through Vol	89	256	0	0	237	313
RT Vol	82	0	24	0	39	35
Lane Flow Rate	198	281	25	120	285	451
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.418	0.623	0.05	0.276	0.608	0.874
Departure Headway (Hd)	7.597	7.97	7.212	8.311	7.691	6.986
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	473	453	496	432	469	518
Service Time	5.663	5.727	4.969	6.069	5.449	5.034
HCM Lane V/C Ratio	0.419	0.62	0.05	0.278	0.608	0.871
HCM Control Delay	16.1	23.1	10.4	14.2	21.7	41.4
HCM Lane LOS	C	C	B	B	C	E
HCM 95th-tile Q	2	4.1	0.2	1.1	4	9.5

HCM 2010 AWSC
1: Valley Dr & Gould Ave
Existing with Manhattan Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	89	313	35
Future Vol, veh/h	0	89	313	35
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	92	323	36
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	41.4
HCM LOS	E

Lane

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Intersection	
Intersection Delay, s/veh	25.5
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	33	270	19	0	121	288	49	0	9	135	119
Future Vol, veh/h	0	33	270	19	0	121	288	49	0	9	135	119
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	37	300	21	0	134	320	54	0	10	150	132
Number of Lanes	0	0	1	1	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	28.9	28	21.5
HCM LOS	D	D	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	3%	11%	0%	100%	0%	34%
Vol Thru, %	51%	89%	0%	0%	85%	59%
Vol Right, %	45%	0%	100%	0%	15%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	303	19	121	337	229
LT Vol	9	33	0	121	0	79
Through Vol	135	270	0	0	288	135
RT Vol	119	0	19	0	49	15
Lane Flow Rate	292	337	21	134	374	254
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.607	0.74	0.042	0.305	0.785	0.557
Departure Headway (Hd)	7.475	7.915	7.135	8.167	7.545	7.884
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	482	458	501	440	479	455
Service Time	5.544	5.679	4.898	5.931	5.308	5.957
HCM Lane V/C Ratio	0.606	0.736	0.042	0.305	0.781	0.558
HCM Control Delay	21.5	30.1	10.2	14.5	32.8	20.5
HCM Lane LOS	C	D	B	B	D	C
HCM 95th-tile Q	4	6	0.1	1.3	7	3.3

HCM 2010 AWSC
1: Valley Dr & Gould Ave
Future with Manhattan Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	79	135	15
Future Vol, veh/h	0	79	135	15
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	88	150	17
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	20.5
HCM LOS	C

Lane

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Intersection	
Intersection Delay, s/veh	46.1
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	18	334	25	0	121	308	41	0	22	93	85
Future Vol, veh/h	0	18	334	25	0	121	308	41	0	22	93	85
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	344	26	0	125	318	42	0	23	96	88
Number of Lanes	0	0	1	1	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	43.5	35	20.2
HCM LOS	E	D	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	11%	5%	0%	100%	0%	20%
Vol Thru, %	47%	95%	0%	0%	88%	72%
Vol Right, %	42%	0%	100%	0%	12%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	200	352	25	121	349	455
LT Vol	22	18	0	121	0	93
Through Vol	93	334	0	0	308	326
RT Vol	85	0	25	0	41	36
Lane Flow Rate	206	363	26	125	360	469
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.498	0.863	0.056	0.312	0.838	1
Departure Headway (Hd)	8.692	8.562	7.806	8.991	8.384	8
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	412	428	461	403	435	455
Service Time	6.776	6.244	5.519	6.668	6.086	6
HCM Lane V/C Ratio	0.5	0.848	0.056	0.31	0.828	1.031
HCM Control Delay	20.2	45.8	11	15.7	41.7	71
HCM Lane LOS	C	E	B	C	E	F
HCM 95th-tile Q	2.7	8.6	0.2	1.3	8.1	13

HCM 2010 AWSC
1: Valley Dr & Gould Ave
Future with Manhattan Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	93	326	36
Future Vol, veh/h	0	93	326	36
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	96	336	37
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	71
HCM LOS	F

Lane

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Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	20	36	0	430	34	0	25	106
Future Vol, veh/h	0	20	36	0	430	34	0	25	106
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	40	0	473	37	0	27	116
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.5	12.9	8.7
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	36%	19%
Vol Thru, %	93%	0%	81%
Vol Right, %	7%	64%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	464	56	131
LT Vol	0	20	25
Through Vol	430	0	106
RT Vol	34	36	0
Lane Flow Rate	510	62	144
Geometry Grp	1	1	1
Degree of Util (X)	0.582	0.086	0.185
Departure Headway (Hd)	4.22	5.031	4.637
Convergence, Y/N	Yes	Yes	Yes
Cap	862	715	777
Service Time	2.22	3.041	2.648
HCM Lane V/C Ratio	0.592	0.087	0.185
HCM Control Delay	12.9	8.5	8.7
HCM Lane LOS	B	A	A
HCM 95th-tile Q	3.8	0.3	0.7

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	27	44	0	284	18	0	14	277
Future Vol, veh/h	0	27	44	0	284	18	0	14	277
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	29	47	0	302	19	0	15	295
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.6	10.3	10.3
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	38%	5%
Vol Thru, %	94%	0%	95%
Vol Right, %	6%	62%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	302	71	291
LT Vol	0	27	14
Through Vol	284	0	277
RT Vol	18	44	0
Lane Flow Rate	321	76	310
Geometry Grp	1	1	1
Degree of Util (X)	0.394	0.105	0.384
Departure Headway (Hd)	4.417	5.009	4.47
Convergence, Y/N	Yes	Yes	Yes
Cap	816	714	805
Service Time	2.442	3.051	2.497
HCM Lane V/C Ratio	0.393	0.106	0.385
HCM Control Delay	10.3	8.6	10.3
HCM Lane LOS	B	A	B
HCM 95th-tile Q	1.9	0.4	1.8

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	21	37	0	454	35	0	26	114
Future Vol, veh/h	0	21	37	0	454	35	0	26	114
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	41	0	499	38	0	29	125
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.7	14.2	8.9
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	36%	19%
Vol Thru, %	93%	0%	81%
Vol Right, %	7%	64%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	489	58	140
LT Vol	0	21	26
Through Vol	454	0	114
RT Vol	35	37	0
Lane Flow Rate	537	64	154
Geometry Grp	1	1	1
Degree of Util (X)	0.631	0.091	0.2
Departure Headway (Hd)	4.225	5.116	4.673
Convergence, Y/N	Yes	Yes	Yes
Cap	854	699	768
Service Time	2.245	3.157	2.701
HCM Lane V/C Ratio	0.629	0.092	0.201
HCM Control Delay	14.2	8.7	8.9
HCM Lane LOS	B	A	A
HCM 95th-tile Q	4.6	0.3	0.7

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	28	46	0	305	19	0	15	299
Future Vol, veh/h	0	28	46	0	305	19	0	15	299
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	30	49	0	324	20	0	16	318
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.8	10.8	10.8
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	38%	5%
Vol Thru, %	94%	0%	95%
Vol Right, %	6%	62%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	324	74	314
LT Vol	0	28	15
Through Vol	305	0	299
RT Vol	19	46	0
Lane Flow Rate	345	79	334
Geometry Grp	1	1	1
Degree of Util (X)	0.427	0.112	0.418
Departure Headway (Hd)	4.457	5.11	4.509
Convergence, Y/N	Yes	Yes	Yes
Cap	807	698	798
Service Time	2.488	3.162	2.541
HCM Lane V/C Ratio	0.428	0.113	0.419
HCM Control Delay	10.8	8.8	10.8
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2.2	0.4	2.1

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	13	14	0	436	15	0	24	110
Future Vol, veh/h	0	13	14	0	436	15	0	24	110
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	15	0	454	16	0	25	115
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	11.7	8.4
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	48%	18%
Vol Thru, %	97%	0%	82%
Vol Right, %	3%	52%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	451	27	134
LT Vol	0	13	24
Through Vol	436	0	110
RT Vol	15	14	0
Lane Flow Rate	470	28	140
Geometry Grp	1	1	1
Degree of Util (X)	0.531	0.039	0.174
Departure Headway (Hd)	4.068	5.025	4.494
Convergence, Y/N	Yes	Yes	Yes
Cap	879	716	803
Service Time	2.139	3.031	2.498
HCM Lane V/C Ratio	0.535	0.039	0.174
HCM Control Delay	11.7	8.2	8.4
HCM Lane LOS	B	A	A
HCM 95th-tile Q	3.2	0.1	0.6

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	12	10	0	302	17	0	13	298
Future Vol, veh/h	0	12	10	0	302	17	0	13	298
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	13	11	0	321	18	0	14	317
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.4	10.2	10.2
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	55%	4%
Vol Thru, %	95%	0%	96%
Vol Right, %	5%	45%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	319	22	311
LT Vol	0	12	13
Through Vol	302	0	298
RT Vol	17	10	0
Lane Flow Rate	339	23	331
Geometry Grp	1	1	1
Degree of Util (X)	0.405	0.034	0.399
Departure Headway (Hd)	4.294	5.195	4.34
Convergence, Y/N	Yes	Yes	Yes
Cap	842	689	830
Service Time	2.307	3.229	2.353
HCM Lane V/C Ratio	0.403	0.033	0.399
HCM Control Delay	10.2	8.4	10.2
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2	0.1	1.9

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	14	15	0	460	16	0	25	118
Future Vol, veh/h	0	14	15	0	460	16	0	25	118
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	16	0	479	17	0	26	123
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.3	12.4	8.6
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	48%	17%
Vol Thru, %	97%	0%	83%
Vol Right, %	3%	52%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	476	29	143
LT Vol	0	14	25
Through Vol	460	0	118
RT Vol	16	15	0
Lane Flow Rate	496	30	149
Geometry Grp	1	1	1
Degree of Util (X)	0.562	0.043	0.187
Departure Headway (Hd)	4.078	5.101	4.526
Convergence, Y/N	Yes	Yes	Yes
Cap	873	705	797
Service Time	2.158	3.109	2.532
HCM Lane V/C Ratio	0.568	0.043	0.187
HCM Control Delay	12.4	8.3	8.6
HCM Lane LOS	B	A	A
HCM 95th-tile Q	3.6	0.1	0.7

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	13	10	0	323	18	0	14	321
Future Vol, veh/h	0	13	10	0	323	18	0	14	321
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	11	0	344	19	0	15	341
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.6	10.7	10.7
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	57%	4%
Vol Thru, %	95%	0%	96%
Vol Right, %	5%	43%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	341	23	335
LT Vol	0	13	14
Through Vol	323	0	321
RT Vol	18	10	0
Lane Flow Rate	363	24	356
Geometry Grp	1	1	1
Degree of Util (X)	0.436	0.036	0.433
Departure Headway (Hd)	4.326	5.315	4.369
Convergence, Y/N	Yes	Yes	Yes
Cap	834	673	827
Service Time	2.34	3.353	2.383
HCM Lane V/C Ratio	0.435	0.036	0.43
HCM Control Delay	10.7	8.6	10.7
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2.2	0.1	2.2

Intersection	
Intersection Delay, s/veh	40.5
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	31	323	48	0	18	347	143	0	77	267	31
Future Vol, veh/h	0	31	323	48	0	18	347	143	0	77	267	31
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	33	344	51	0	19	369	152	0	82	284	33
Number of Lanes	0	0	1	0	0	0	2	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	64	17.6	54.3
HCM LOS	F	C	F

Lane	NBLn1	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	21%	8%	13%	0%	0%	47%
Vol Thru, %	71%	80%	87%	100%	0%	47%
Vol Right, %	8%	12%	0%	0%	100%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	375	402	134	231	143	131
LT Vol	77	31	18	0	0	62
Through Vol	267	323	116	231	0	61
RT Vol	31	48	0	0	143	8
Lane Flow Rate	399	428	142	246	152	139
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.919	0.968	0.329	0.564	0.318	0.367
Departure Headway (Hd)	8.291	8.149	8.324	8.255	7.53	9.477
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	439	445	431	436	476	379
Service Time	6.047	5.912	6.097	6.028	5.302	7.255
HCM Lane V/C Ratio	0.909	0.962	0.329	0.564	0.319	0.367
HCM Control Delay	54.3	64	15.2	21.3	13.8	17.7
HCM Lane LOS	F	F	C	C	B	C
HCM 95th-tile Q	10.2	11.8	1.4	3.4	1.4	1.6

HCM 2010 AWSC
4: Ardmore Ave & Gould Ave

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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	62	61	8
Future Vol, veh/h	0	62	61	8
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	66	65	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	17.7
HCM LOS	C

Lane

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Intersection	
Intersection Delay, s/veh	39.6
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	24	350	57	0	28	319	121	0	58	176	32
Future Vol, veh/h	0	24	350	57	0	28	319	121	0	58	176	32
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	361	59	0	29	329	125	0	60	181	33
Number of Lanes	0	0	1	0	0	0	2	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	72.8	17.2	28.6
HCM LOS	F	C	D

Lane	NBLn1	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	22%	6%	21%	0%	0%	25%
Vol Thru, %	66%	81%	79%	100%	0%	72%
Vol Right, %	12%	13%	0%	0%	100%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	266	431	134	213	121	309
LT Vol	58	24	28	0	0	76
Through Vol	176	350	106	213	0	221
RT Vol	32	57	0	0	121	12
Lane Flow Rate	274	444	138	219	125	319
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.682	1	0.334	0.522	0.272	0.782
Departure Headway (Hd)	8.947	8.457	8.679	8.571	7.844	8.837
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	409	431	417	423	459	414
Service Time	6.585	6.157	6.392	6.287	5.585	6.476
HCM Lane V/C Ratio	0.67	1.03	0.331	0.518	0.272	0.771
HCM Control Delay	28.6	72.8	15.7	20.3	13.5	36.5
HCM Lane LOS	D	F	C	C	B	E
HCM 95th-tile Q	4.9	12.6	1.4	2.9	1.1	6.7

HCM 2010 AWSC
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	76	221	12
Future Vol, veh/h	0	76	221	12
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	78	228	12
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	36.5
HCM LOS	E

Lane

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Intersection	
Intersection Delay, s/veh	47.5
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	32	363	53	0	19	393	150	0	82	283	32
Future Vol, veh/h	0	32	363	53	0	19	393	150	0	82	283	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	386	56	0	20	418	160	0	87	301	34
Number of Lanes	0	0	1	0	0	0	2	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	73.2	20.1	67.6
HCM LOS	F	C	F

Lane	NBLn1	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	21%	7%	13%	0%	0%	47%
Vol Thru, %	71%	81%	87%	100%	0%	47%
Vol Right, %	8%	12%	0%	0%	100%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	397	448	150	262	150	140
LT Vol	82	32	19	0	0	66
Through Vol	283	363	131	262	0	66
RT Vol	32	53	0	0	150	8
Lane Flow Rate	422	477	160	279	160	149
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.98	1	0.376	0.653	0.342	0.395
Departure Headway (Hd)	8.354	8.506	8.491	8.428	7.726	9.551
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	435	429	426	432	469	377
Service Time	6.096	6.225	6.191	6.128	5.426	7.311
HCM Lane V/C Ratio	0.97	1.112	0.376	0.646	0.341	0.395
HCM Control Delay	67.6	73.2	16.2	25.6	14.4	18.4
HCM Lane LOS	F	F	C	D	B	C
HCM 95th-tile Q	12	12.6	1.7	4.5	1.5	1.8

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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	66	66	8
Future Vol, veh/h	0	66	66	8
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	70	70	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	18.4
HCM LOS	C

Lane

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Intersection	
Intersection Delay, s/veh	45.7
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	25	421	70	0	29	383	129	0	70	189	33
Future Vol, veh/h	0	25	421	70	0	29	383	129	0	70	189	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	26	434	72	0	30	395	133	0	72	195	34
Number of Lanes	0	0	1	0	0	0	2	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	75.2	21.2	36.5
HCM LOS	F	C	E

Lane	NBLn1	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	24%	5%	19%	0%	0%	25%
Vol Thru, %	65%	82%	81%	100%	0%	72%
Vol Right, %	11%	14%	0%	0%	100%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	292	516	157	255	129	332
LT Vol	70	25	29	0	0	82
Through Vol	189	421	128	255	0	238
RT Vol	33	70	0	0	129	12
Lane Flow Rate	301	532	162	263	133	342
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.767	1	0.403	0.65	0.302	0.862
Departure Headway (Hd)	9.175	8.884	8.976	8.883	8.181	9.063
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	394	410	401	405	439	400
Service Time	6.932	6.676	6.747	6.654	5.952	6.816
HCM Lane V/C Ratio	0.764	1.298	0.404	0.649	0.303	0.855
HCM Control Delay	36.5	75.2	17.7	26.8	14.5	47.8
HCM Lane LOS	E	F	C	D	B	E
HCM 95th-tile Q	6.3	12.3	1.9	4.4	1.3	8.4

HCM 2010 AWSC
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	82	238	12
Future Vol, veh/h	0	82	238	12
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	85	245	12
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	47.8
HCM LOS	E

Lane

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Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	11	37	7	0	3	26	16	0	7	32	2
Future Vol, veh/h	0	11	37	7	0	3	26	16	0	7	32	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	39	7	0	3	27	17	0	7	33	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.4	7.2	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	20%	7%	26%
Vol Thru, %	78%	67%	58%	41%
Vol Right, %	5%	13%	36%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	55	45	27
LT Vol	7	11	3	7
Through Vol	32	37	26	11
RT Vol	2	7	16	9
Lane Flow Rate	43	57	47	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.049	0.065	0.051	0.031
Departure Headway (Hd)	4.142	4.057	3.9	4
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	860	879	913	888
Service Time	2.191	2.098	1.946	2.054
HCM Lane V/C Ratio	0.05	0.065	0.051	0.032
HCM Control Delay	7.4	7.4	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.1

HCM 2010 AWSC
5: Dianthus St & Duncan Ave
Existing with Manhattan Beach Project Only Conditions
Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	11	9
Future Vol, veh/h	0	7	11	9
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	11	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	7	25	7	0	10	55	51	0	8	26	3
Future Vol, veh/h	0	7	25	7	0	10	55	51	0	8	26	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	28	8	0	11	62	57	0	9	29	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.4	7.6	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	18%	9%	20%
Vol Thru, %	70%	64%	47%	69%
Vol Right, %	8%	18%	44%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	39	116	49
LT Vol	8	7	10	10
Through Vol	26	25	55	34
RT Vol	3	7	51	5
Lane Flow Rate	42	44	130	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.049	0.05	0.141	0.065
Departure Headway (Hd)	4.274	4.131	3.888	4.248
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	827	856	912	832
Service Time	2.358	2.208	1.952	2.328
HCM Lane V/C Ratio	0.051	0.051	0.143	0.066
HCM Control Delay	7.6	7.4	7.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.5	0.2

HCM 2010 AWSC
5: Dianthus St & Duncan Ave
Existing with Manhattan Beach Project Only Conditions
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	34	5
Future Vol, veh/h	0	10	34	5
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	38	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.6
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	11	38	7	0	3	27	17	0	7	33	2
Future Vol, veh/h	0	11	38	7	0	3	27	17	0	7	33	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	40	7	0	3	28	18	0	7	34	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.4	7.2	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	20%	6%	26%
Vol Thru, %	79%	68%	57%	41%
Vol Right, %	5%	12%	36%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	56	47	27
LT Vol	7	11	3	7
Through Vol	33	38	27	11
RT Vol	2	7	17	9
Lane Flow Rate	44	58	49	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.05	0.066	0.053	0.031
Departure Headway (Hd)	4.147	4.061	3.899	4.006
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	858	879	914	887
Service Time	2.197	2.102	1.944	2.061
HCM Lane V/C Ratio	0.051	0.066	0.054	0.032
HCM Control Delay	7.4	7.4	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.1

HCM 2010 AWSC
5: Dianthus St & Duncan Ave
Future with Manhattan Beach Project Only Conditions
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	11	9
Future Vol, veh/h	0	7	11	9
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	11	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	7	26	7	0	10	57	53	0	8	27	3
Future Vol, veh/h	0	7	26	7	0	10	57	53	0	8	27	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	29	8	0	11	64	60	0	9	30	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.5	7.6	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	17%	8%	20%
Vol Thru, %	71%	65%	48%	70%
Vol Right, %	8%	17%	44%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	40	120	50
LT Vol	8	7	10	10
Through Vol	27	26	57	35
RT Vol	3	7	53	5
Lane Flow Rate	43	45	135	56
Geometry Grp	1	1	1	1
Degree of Util (X)	0.051	0.052	0.146	0.066
Departure Headway (Hd)	4.284	4.14	3.891	4.259
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	854	911	830
Service Time	2.373	2.22	1.958	2.344
HCM Lane V/C Ratio	0.052	0.053	0.148	0.067
HCM Control Delay	7.6	7.5	7.6	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.5	0.2

HCM 2010 AWSC
5: Dianthus St & Duncan Ave
Future with Manhattan Beach Project Only Conditions
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	35	5
Future Vol, veh/h	0	10	35	5
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	39	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.7
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	5	1	3	0	4	0	14	0	1	26	4
Future Vol, veh/h	0	5	1	3	0	4	0	14	0	1	26	4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	1	3	0	4	0	16	0	1	29	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7	6.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	56%	22%	17%
Vol Thru, %	84%	11%	0%	71%
Vol Right, %	13%	33%	78%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	9	18	24
LT Vol	1	5	4	4
Through Vol	26	1	0	17
RT Vol	4	3	14	3
Lane Flow Rate	35	10	20	27
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.011	0.02	0.03
Departure Headway (Hd)	3.936	3.968	3.626	3.971
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	912	901	986	904
Service Time	1.949	1.995	1.653	1.985
HCM Lane V/C Ratio	0.038	0.011	0.02	0.03
HCM Control Delay	7.1	7	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

HCM 2010 AWSC
6: Tennyson Pl/Dianthus St & Boundary Pl
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	4	17	3
Future Vol, veh/h	0	4	17	3
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	19	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	2	3	0	1	2	10	0	3	21	5
Future Vol, veh/h	0	3	2	3	0	1	2	10	0	3	21	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	2	3	0	1	2	10	0	3	22	5
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7	6.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	38%	8%	9%
Vol Thru, %	72%	25%	15%	81%
Vol Right, %	17%	38%	77%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	8	13	47
LT Vol	3	3	1	4
Through Vol	21	2	2	38
RT Vol	5	3	10	5
Lane Flow Rate	30	8	14	49
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.009	0.014	0.054
Departure Headway (Hd)	3.925	3.933	3.632	3.947
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	908	983	910
Service Time	1.942	1.965	1.664	1.96
HCM Lane V/C Ratio	0.033	0.009	0.014	0.054
HCM Control Delay	7.1	7	6.7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.2

HCM 2010 AWSC
6: Tennyson Pl/Dianthus St & Boundary Pl
Existing with Manhattan Beach Project Only Conditions
Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	4	38	5
Future Vol, veh/h	0	4	38	5
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	40	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	5	1	3	0	4	0	15	0	1	27	4
Future Vol, veh/h	0	5	1	3	0	4	0	15	0	1	27	4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	1	3	0	4	0	17	0	1	30	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7	6.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	56%	21%	16%
Vol Thru, %	84%	11%	0%	72%
Vol Right, %	12%	33%	79%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	9	19	25
LT Vol	1	5	4	4
Through Vol	27	1	0	18
RT Vol	4	3	15	3
Lane Flow Rate	36	10	21	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.039	0.011	0.021	0.031
Departure Headway (Hd)	3.941	3.973	3.621	3.976
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	911	900	987	903
Service Time	1.954	2	1.648	1.99
HCM Lane V/C Ratio	0.04	0.011	0.021	0.031
HCM Control Delay	7.1	7	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

HCM 2010 AWSC
6: Tennyson Pl/Dianthus St & Boundary Pl
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	4	18	3
Future Vol, veh/h	0	4	18	3
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	20	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	2	3	0	1	2	10	0	3	22	5
Future Vol, veh/h	0	3	2	3	0	1	2	10	0	3	22	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	2	3	0	1	2	10	0	3	23	5
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7	6.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	38%	8%	8%
Vol Thru, %	73%	25%	15%	82%
Vol Right, %	17%	38%	77%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	8	13	49
LT Vol	3	3	1	4
Through Vol	22	2	2	40
RT Vol	5	3	10	5
Lane Flow Rate	31	8	14	51
Geometry Grp	1	1	1	1
Degree of Util (X)	0.034	0.009	0.014	0.056
Departure Headway (Hd)	3.929	3.936	3.636	3.95
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	913	907	981	909
Service Time	1.946	1.971	1.67	1.963
HCM Lane V/C Ratio	0.034	0.009	0.014	0.056
HCM Control Delay	7.1	7	6.7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.2

HCM 2010 AWSC
6: Tennyson Pl/Dianthus St & Boundary Pl
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	4	40	5
Future Vol, veh/h	0	4	40	5
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	42	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	29	8	0	2	21	17	0	2	16	3
Future Vol, veh/h	0	3	29	8	0	2	21	17	0	2	16	3
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	37	10	0	3	27	22	0	3	21	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.1	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	7%	5%	38%
Vol Thru, %	76%	72%	53%	46%
Vol Right, %	14%	20%	42%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	40	40	26
LT Vol	2	3	2	10
Through Vol	16	29	21	12
RT Vol	3	8	17	4
Lane Flow Rate	27	51	51	33
Geometry Grp	1	1	1	1
Degree of Util (X)	0.03	0.057	0.055	0.038
Departure Headway (Hd)	4.072	3.974	3.833	4.118
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	875	899	931	865
Service Time	2.118	2.009	1.87	2.163
HCM Lane V/C Ratio	0.031	0.057	0.055	0.038
HCM Control Delay	7.2	7.3	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2	0.1

HCM 2010 AWSC
7: Tennyson Pl & Longfellow Ave
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	12	4
Future Vol, veh/h	0	10	12	4
Peak Hour Factor	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	15	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.3
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	4	20	3	0	8	26	14	0	2	9	10
Future Vol, veh/h	0	4	20	3	0	8	26	14	0	2	9	10
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	23	3	0	9	30	16	0	2	10	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	15%	17%	46%
Vol Thru, %	43%	74%	54%	49%
Vol Right, %	48%	11%	29%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	27	48	39
LT Vol	2	4	8	18
Through Vol	9	20	26	19
RT Vol	10	3	14	2
Lane Flow Rate	24	31	55	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.026	0.035	0.06	0.052
Departure Headway (Hd)	3.852	4.058	3.935	4.164
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	924	878	906	857
Service Time	1.897	2.101	1.974	2.203
HCM Lane V/C Ratio	0.026	0.035	0.061	0.053
HCM Control Delay	7	7.2	7.2	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.2

HCM 2010 AWSC
7: Tennyson Pl & Longfellow Ave
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	18	19	2
Future Vol, veh/h	0	18	19	2
Peak Hour Factor	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	22	2
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.4
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	30	8	0	2	22	18	0	2	17	3
Future Vol, veh/h	0	3	30	8	0	2	22	18	0	2	17	3
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	38	10	0	3	28	23	0	3	22	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.1	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	7%	5%	38%
Vol Thru, %	77%	73%	52%	46%
Vol Right, %	14%	20%	43%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	41	42	26
LT Vol	2	3	2	10
Through Vol	17	30	22	12
RT Vol	3	8	18	4
Lane Flow Rate	28	53	54	33
Geometry Grp	1	1	1	1
Degree of Util (X)	0.032	0.058	0.057	0.038
Departure Headway (Hd)	4.081	3.98	3.834	4.125
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	873	897	930	864
Service Time	2.127	2.017	1.872	2.17
HCM Lane V/C Ratio	0.032	0.059	0.058	0.038
HCM Control Delay	7.3	7.3	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2	0.1

HCM 2010 AWSC
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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	12	4
Future Vol, veh/h	0	10	12	4
Peak Hour Factor	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	15	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.3
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	4	21	3	0	8	27	15	0	2	10	10
Future Vol, veh/h	0	4	21	3	0	8	27	15	0	2	10	10
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	24	3	0	9	31	17	0	2	11	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.2	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	14%	16%	46%
Vol Thru, %	45%	75%	54%	49%
Vol Right, %	45%	11%	30%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	28	50	41
LT Vol	2	4	8	19
Through Vol	10	21	27	20
RT Vol	10	3	15	2
Lane Flow Rate	25	32	57	47
Geometry Grp	1	1	1	1
Degree of Util (X)	0.027	0.036	0.063	0.055
Departure Headway (Hd)	3.871	4.067	3.936	4.172
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	919	876	906	855
Service Time	1.92	2.113	1.977	2.214
HCM Lane V/C Ratio	0.027	0.037	0.063	0.055
HCM Control Delay	7	7.3	7.2	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	19	20	2
Future Vol, veh/h	0	19	20	2
Peak Hour Factor	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	22	23	2
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.5
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	6	25	5	0	6	16	11	0	2	1	2
Future Vol, veh/h	0	6	25	5	0	6	16	11	0	2	1	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	26	5	0	6	16	11	0	2	1	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.1	7	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	17%	18%	68%
Vol Thru, %	20%	69%	48%	16%
Vol Right, %	40%	14%	33%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	36	33	19
LT Vol	2	6	6	13
Through Vol	1	25	16	3
RT Vol	2	5	11	3
Lane Flow Rate	5	37	34	19
Geometry Grp	1	1	1	1
Degree of Util (X)	0.006	0.04	0.036	0.022
Departure Headway (Hd)	3.911	3.952	3.841	4.103
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	908	933	872
Service Time	1.941	1.969	1.859	2.129
HCM Lane V/C Ratio	0.005	0.041	0.036	0.022
HCM Control Delay	7	7.1	7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.1	0.1

HCM 2010 AWSC
8: Tennyson Pl & 30th St

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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	13	3	3
Future Vol, veh/h	0	13	3	3
Peak Hour Factor	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	3	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	12	27	2	0	1	3	8	0	2	3	3
Future Vol, veh/h	0	12	27	2	0	1	3	8	0	2	3	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	13	30	2	0	1	3	9	0	2	3	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	6.7	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	29%	8%	53%
Vol Thru, %	38%	66%	25%	9%
Vol Right, %	38%	5%	67%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	41	12	32
LT Vol	2	12	1	17
Through Vol	3	27	3	3
RT Vol	3	2	8	12
Lane Flow Rate	9	46	13	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.051	0.014	0.039
Departure Headway (Hd)	3.888	4.052	3.663	3.924
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	919	885	976	912
Service Time	1.919	2.071	1.69	1.951
HCM Lane V/C Ratio	0.01	0.052	0.013	0.039
HCM Control Delay	7	7.3	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0	0.1

HCM 2010 AWSC
8: Tennyson Pl & 30th St

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Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	17	3	12
Future Vol, veh/h	0	17	3	12
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	19	3	13
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	6	26	5	0	6	17	11	0	2	1	2
Future Vol, veh/h	0	6	26	5	0	6	17	11	0	2	1	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	27	5	0	6	17	11	0	2	1	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.1	7	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	16%	18%	70%
Vol Thru, %	20%	70%	50%	15%
Vol Right, %	40%	14%	32%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	37	34	20
LT Vol	2	6	6	14
Through Vol	1	26	17	3
RT Vol	2	5	11	3
Lane Flow Rate	5	38	35	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.006	0.041	0.037	0.023
Departure Headway (Hd)	3.916	3.956	3.849	4.115
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	912	907	932	870
Service Time	1.946	1.973	1.866	2.141
HCM Lane V/C Ratio	0.005	0.042	0.038	0.023
HCM Control Delay	7	7.1	7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.1	0.1

HCM 2010 AWSC
8: Tennyson Pl & 30th St

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Weekday AM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	14	3	3
Future Vol, veh/h	0	14	3	3
Peak Hour Factor	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	3	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

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Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	12	28	2	0	1	3	9	0	2	3	3
Future Vol, veh/h	0	12	28	2	0	1	3	9	0	2	3	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	13	31	2	0	1	3	10	0	2	3	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	6.7	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	29%	8%	55%
Vol Thru, %	38%	67%	23%	9%
Vol Right, %	38%	5%	69%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	42	13	33
LT Vol	2	12	1	18
Through Vol	3	28	3	3
RT Vol	3	2	9	12
Lane Flow Rate	9	47	14	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.053	0.015	0.04
Departure Headway (Hd)	3.893	4.054	3.649	3.937
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	917	885	979	908
Service Time	1.926	2.073	1.677	1.966
HCM Lane V/C Ratio	0.01	0.053	0.014	0.041
HCM Control Delay	7	7.3	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0	0.1

HCM 2010 AWSC
8: Tennyson Pl & 30th St

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Weekday PM Peak Hour

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	18	3	12
Future Vol, veh/h	0	18	3	12
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	20	3	13
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

Skechers Design Center and Offices Project/1-14-4065-2
LLG Engineers

Synchro 9 Report
4/12/2016

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Manhattan Beach Boulevard

N-S St: Sepulveda Boulevard
E-W St: Manhattan Beach Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU9

Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	127	1600	0.079	0	127	1600	0.079	0	127	1600	0.079	5	18	150	1600	0.094	0	150	1600	0.094	0	150	1600	0.094
NB Thru	2794	4800	0.602 *	-1	2793	4800	0.602 *	0	2793	4800	0.602 *	113	123	3030	4800	0.657 *	-1	3029	4800	0.657 *	0	3029	4800	0.657 *
NB Right	96	0	0.000	0	96	0	0.000	0	96	0	0.000	4	24	124	0	0.000	0	124	0	0.000	0	124	0	0.000
SB Left	118	2880	0.041 *	0	118	2880	0.041 *	0	118	2880	0.041 *	5	2	125	2880	0.043 *	0	125	2880	0.043 *	0	125	2880	0.043 *
SB Thru	895	4800	0.215	21	916	4800	0.220	0	916	4800	0.220	36	128	1059	4800	0.253	21	1080	4800	0.257	0	1080	4800	0.257
SB Right	138	0	0.000	0	138	0	0.000	0	138	0	0.000	6	10	154	0	0.000	0	154	0	0.000	0	154	0	0.000
EB Left	193	1600	0.121 *	0	193	1600	0.121 *	0	193	1600	0.121 *	8	10	211	1600	0.132 *	0	211	1600	0.132 *	0	211	1600	0.132 *
EB Thru	520	3200	0.163	0	520	3200	0.163	0	520	3200	0.163	21	8	549	3200	0.172	0	549	3200	0.172	0	549	3200	0.172
EB Right	136	1600	0.085	1	137	1600	0.086	0	137	1600	0.086	6	17	159	1600	0.099	1	160	1600	0.100	0	160	1600	0.100
WB Left	149	1600	0.093	5	154	1600	0.096	0	154	1600	0.096	6	32	187	1600	0.117	5	192	1600	0.120	0	192	1600	0.120
WB Thru	563	3200	0.176 *	0	563	3200	0.176 *	0	563	3200	0.176 *	23	12	598	3200	0.187 *	0	598	3200	0.187 *	0	598	3200	0.187 *
WB Right [3]	173	1600	0.067	0	173	1600	0.067	0	173	1600	0.067	7	2	182	1600	0.070	0	182	1600	0.070	0	182	1600	0.070
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.040				1.039				1.039					1.119				1.119				1.119
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Manhattan Beach Boulevard

N-S St: Sepulveda Boulevard
E-W St: Manhattan Beach Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU9

Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	230	1600	0.144 *	3	233	1600	0.146 *	0	233	1600	0.146 *	9	13	252	1600	0.158 *	3	255	1600	0.159 *	0	255	1600	0.159 *
NB Thru	1220	4800	0.288	16	1236	4800	0.292	0	1236	4800	0.292	50	193	1463	4800	0.346	16	1479	4800	0.350	0	1479	4800	0.350
NB Right	162	0	0.000	4	166	0	0.000	0	166	0	0.000	7	27	196	0	0.000	4	200	0	0.000	0	200	0	0.000
SB Left	171	2880	0.059	0	171	2880	0.059	0	171	2880	0.059	7	5	183	2880	0.064	0	183	2880	0.064	0	183	2880	0.064
SB Thru	2141	4800	0.471 *	-2	2139	4800	0.471 *	0	2139	4800	0.471 *	87	218	2446	4800	0.538 *	-2	2444	4800	0.537 *	0	2444	4800	0.537 *
SB Right	121	0	0.000	0	121	0	0.000	0	121	0	0.000	5	9	135	0	0.000	0	135	0	0.000	0	135	0	0.000
EB Left	233	1600	0.146	0	233	1600	0.146	0	233	1600	0.146	9	11	253	1600	0.158	0	253	1600	0.158	0	253	1600	0.158
EB Thru	528	3200	0.165 *	0	528	3200	0.165 *	0	528	3200	0.165 *	21	8	557	3200	0.174 *	0	557	3200	0.174 *	0	557	3200	0.174 *
EB Right	133	1600	0.083	0	133	1600	0.083	0	133	1600	0.083	5	12	150	1600	0.094	0	150	1600	0.094	0	150	1600	0.094
WB Left	276	1600	0.173 *	0	276	1600	0.173 *	0	276	1600	0.173 *	11	20	307	1600	0.192 *	0	307	1600	0.192 *	0	307	1600	0.192 *
WB Thru	519	3200	0.162	0	519	3200	0.162	0	519	3200	0.162	21	4	544	3200	0.170	0	544	3200	0.170	0	544	3200	0.170
WB Right [3]	140	1600	0.028	0	140	1600	0.028	0	140	1600	0.028	6	7	153	1600	0.032	0	153	1600	0.032	0	153	1600	0.032
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.053				1.054				1.054					1.161				1.163				1.163
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ 8th Street

N-S St: Sepulveda Boulevard
E-W St: 8th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU10

Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	18	1600	0.011	0	18	1600	0.011	0	18	1600	0.011	1	35	54	1600	0.034	0	54	1600	0.034	0	54	1600	0.034
NB Thru	3089	4800	0.645 *	1	3090	4800	0.645 *	0	3090	4800	0.645 *	125	130	3344	4800	0.698 *	1	3345	4800	0.698 *	0	3345	4800	0.698 *
NB Right	7	0	0.000	0	7	0	0.000	0	7	0	0.000	0	0	7	0	0.000	0	7	0	0.000	0	7	0	0.000
SB Left [4]	6	1600	0.004 *	0	6	1600	0.004 *	0	6	1600	0.004 *	0	1	7	1600	0.004 *	0	7	1600	0.004 *	0	7	1600	0.004 *
SB Thru	1108	4800	0.239	28	1136	4800	0.245	0	1136	4800	0.245	45	132	1285	4800	0.277	28	1313	4800	0.283	0	1313	4800	0.283
SB Right	40	0	0.000	0	40	0	0.000	0	40	0	0.000	2	2	44	0	0.000	0	44	0	0.000	0	44	0	0.000
EB Left	21	0	0.013 *	0	21	0	0.013 *	0	21	0	0.013 *	1	19	41	0	0.026 *	0	41	0	0.026 *	0	41	0	0.026 *
EB Thru	46	1600	0.043	0	46	1600	0.044	0	46	1600	0.044	2	6	54	1600	0.061	0	54	1600	0.061	0	54	1600	0.061
EB Right	2	0	0.000	1	3	0	0.000	0	3	0	0.000	0	0	2	0	0.000	1	3	0	0.000	0	3	0	0.000
WB Left	22	0	0.014	0	22	0	0.014	0	22	0	0.014	1	0	23	0	0.014	0	23	0	0.014	0	23	0	0.014
WB Thru	72	1600	0.059 *	0	72	1600	0.059 *	0	72	1600	0.059 *	3	9	84	1600	0.067 *	0	84	1600	0.067 *	0	84	1600	0.067 *
WB Right	55	1600	0.034	0	55	1600	0.034	0	55	1600	0.034	2	1	58	1600	0.036	0	58	1600	0.036	0	58	1600	0.036
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.821				0.821				0.821					0.895				0.895				0.895
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turns 3-7 PM
4 No southbound left-turns 7-9 AM

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INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: 8th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU10

Sepulveda Boulevard @ 8th Street
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	2	1600	0.001 *	0	2	1600	0.001 *	0	2	1600	0.001 *	0	33	35	1600	0.022 *	0	35	1600	0.022 *	0	35	1600	0.022 *
NB Thru	1481	4800	0.312	20	1501	4800	0.316	0	1501	4800	0.316	60	167	1708	4800	0.359	20	1728	4800	0.364	0	1728	4800	0.364
NB Right	16	0	0.000	0	16	0	0.000	0	16	0	0.000	1	0	17	0	0.000	0	17	0	0.000	0	17	0	0.000
SB Left [4]	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030	2	1	51	1600	0.032	0	51	1600	0.032	0	51	1600	0.032
SB Thru	2554	4800	0.534 *	-4	2550	4800	0.533 *	0	2550	4800	0.533 *	104	246	2904	4800	0.607 *	-4	2900	4800	0.606 *	0	2900	4800	0.606 *
SB Right	9	0	0.000	0	9	0	0.000	0	9	0	0.000	0	2	11	0	0.000	0	11	0	0.000	0	11	0	0.000
EB Left	34	0	0.021	0	34	0	0.021	0	34	0	0.021	1	21	56	0	0.035	0	56	0	0.035	0	56	0	0.035
EB Thru	28	1600	0.051 *	0	28	1600	0.051 *	0	28	1600	0.051 *	1	7	36	1600	0.071 *	0	36	1600	0.071 *	0	36	1600	0.071 *
EB Right	20	0	0.000	0	20	0	0.000	0	20	0	0.000	1	0	21	0	0.000	0	21	0	0.000	0	21	0	0.000
WB Left	21	0	0.013 *	0	21	0	0.013 *	0	21	0	0.013 *	1	0	22	0	0.014 *	0	22	0	0.014 *	0	22	0	0.014 *
WB Thru	18	1600	0.024	0	18	1600	0.024	0	18	1600	0.024	1	9	28	1600	0.031	0	28	1600	0.031	0	28	1600	0.031
WB Right	19	1600	0.012	0	19	1600	0.012	0	19	1600	0.012	1	1	21	1600	0.013	0	21	1600	0.013	0	21	1600	0.013
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.700				0.699				0.699					0.814				0.813				0.813
LOS			B				B				B					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turns 3-7 PM
4 No southbound left-turns 7-9 AM

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INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: 2nd Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU11

Sepulveda Boulevard @ 2nd Street
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	20	1600	0.013	0	20	1600	0.013	0	20	1600	0.013	1	1	22	1600	0.014	0	22	1600	0.014	0	22	1600	0.014
NB Thru	2903	4800	0.608 *	1	2904	4800	0.609 *	0	2904	4800	0.609 *	118	161	3182	4800	0.667 *	1	3183	4800	0.667 *	0	3183	4800	0.667 *
NB Right	17	0	0.000	0	17	0	0.000	0	17	0	0.000	1	0	18	0	0.000	0	18	0	0.000	0	18	0	0.000
SB Left	43	1600	0.027 *	0	43	1600	0.027 *	0	43	1600	0.027 *	2	5	50	1600	0.031 *	0	50	1600	0.031 *	0	50	1600	0.031 *
SB Thru	979	4800	0.218	30	1009	4800	0.224	0	1009	4800	0.224	40	115	1134	4800	0.251	30	1164	4800	0.257	0	1164	4800	0.257
SB Right	65	0	0.000	0	65	0	0.000	0	65	0	0.000	3	2	70	0	0.000	0	70	0	0.000	0	70	0	0.000
EB Left	55	1600	0.034 *	0	55	1600	0.034 *	0	55	1600	0.034 *	2	2	59	1600	0.037 *	0	59	1600	0.037 *	0	59	1600	0.037 *
EB Thru	108	1600	0.077	0	108	1600	0.078	0	108	1600	0.078	4	0	112	1600	0.081	0	112	1600	0.081	0	112	1600	0.081
EB Right	15	0	0.000	1	16	0	0.000	0	16	0	0.000	1	1	17	0	0.000	1	18	0	0.000	0	18	0	0.000
WB Left	39	1600	0.024	0	39	1600	0.024	0	39	1600	0.024	2	0	41	1600	0.026	0	41	1600	0.026	0	41	1600	0.026
WB Thru	93	1600	0.098 *	0	93	1600	0.098 *	0	93	1600	0.098 *	4	3	100	1600	0.108 *	0	100	1600	0.108 *	0	100	1600	0.108 *
WB Right	64	0	0.000	0	64	0	0.000	0	64	0	0.000	3	5	72	0	0.000	0	72	0	0.000	0	72	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.868				0.868				0.868					0.942				0.943				0.943
LOS			D				D				D					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: 2nd Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU11

Sepulveda Boulevard @ 2nd Street
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	22	1600	0.014 *	2	24	1600	0.015 *	0	24	1600	0.015 *	1	3	26	1600	0.016 *	2	28	1600	0.018 *	0	28	1600	0.018 *
NB Thru	1368	4800	0.290	20	1388	4800	0.295	0	1388	4800	0.295	56	215	1639	4800	0.347	20	1659	4800	0.351	0	1659	4800	0.351
NB Right	26	0	0.000	0	26	0	0.000	0	26	0	0.000	1	0	27	0	0.000	0	27	0	0.000	0	27	0	0.000
SB Left	35	1600	0.022	0	35	1600	0.022	0	35	1600	0.022	1	6	42	1600	0.026	0	42	1600	0.026	0	42	1600	0.026
SB Thru	2292	4800	0.483 *	-4	2288	4800	0.482 *	0	2288	4800	0.482 *	93	215	2600	4800	0.548 *	-4	2596	4800	0.547 *	0	2596	4800	0.547 *
SB Right	27	0	0.000	0	27	0	0.000	0	27	0	0.000	1	2	30	0	0.000	0	30	0	0.000	0	30	0	0.000
EB Left	69	1600	0.043	0	69	1600	0.043	0	69	1600	0.043	3	1	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046
EB Thru	77	1600	0.091 *	0	77	1600	0.091 *	0	77	1600	0.091 *	3	0	80	1600	0.096 *	0	80	1600	0.096 *	0	80	1600	0.096 *
EB Right	68	0	0.000	0	68	0	0.000	0	68	0	0.000	3	3	74	0	0.000	0	74	0	0.000	0	74	0	0.000
WB Left	39	1600	0.024 *	0	39	1600	0.024 *	0	39	1600	0.024 *	2	0	41	1600	0.026 *	0	41	1600	0.026 *	0	41	1600	0.026 *
WB Thru	52	1600	0.053	0	52	1600	0.053	0	52	1600	0.053	2	3	57	1600	0.059	0	57	1600	0.059	0	57	1600	0.059
WB Right	33	0	0.000	0	33	0	0.000	0	33	0	0.000	1	4	38	0	0.000	0	38	0	0.000	0	38	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.712				0.712				0.712					0.786				0.786				0.786
LOS			C				C				C					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	8	3	21	0	1	14	117	2940	7	31	991	75
Future Vol, veh/h	8	3	21	0	1	14	117	2940	7	31	991	75
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	40
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	3	22	0	1	15	123	3095	7	33	1043	79

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2635	4498	565	3831	4534	1591	1124	0	0	3102	0	0
Stage 1	1150	1150	-	3345	3345	-	-	-	-	-	-	-
Stage 2	1485	3348	-	486	1189	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	25	~ 1	401	4	~ 1	82	341	-	-	33	-	-
Stage 1	156	271	-	4	20	-	-	-	-	-	-	-
Stage 2	116	20	-	486	260	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	400	-	~ 1	79	340	-	-	~ 32	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	99	271	-	3	13	-	-	-	-	-	-	-
Stage 2	54	13	-	453	260	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.8	9.9
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	340	-	-	-	-	~ 32	-	-
HCM Lane V/C Ratio	0.362	-	-	-	-	1.02	-	-
HCM Control Delay (s)	21.5	-	-	-	-$	349.2	-	-
HCM Lane LOS	C	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	1.6	-	-	-	-	3.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	51.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	0	101	0	0	15	38	1369	3	17	2290	20
Future Vol, veh/h	25	0	101	0	0	15	38	1369	3	17	2290	20
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	1	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	0	103	0	0	15	39	1397	3	17	2337	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3019	3861	1181	2446	3869	727	2358	0	0	1400	0	0
Stage 1	2383	2383	-	1476	1476	-	-	-	-	-	-	-
Stage 2	636	1478	-	970	2393	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	~ 14	4	157	33	3	314	82	-	-	250	-	-
Stage 1	~ 20	65	-	92	189	-	-	-	-	-	-	-
Stage 2	394	188	-	245	65	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 8	2	157	7	1	307	82	-	-	244	-	-
Mov Cap-2 Maneuver	~ 8	2	-	7	1	-	-	-	-	-	-	-
Stage 1	~ 10	60	-	48	99	-	-	-	-	-	-	-
Stage 2	192	99	-	78	60	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 1550.5	17.3	2.2	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	82	-	-	33	307	244	-	-
HCM Lane V/C Ratio	0.473	-	-	3.896	0.05	0.071	-	-
HCM Control Delay (s)	83.3	-	$	1550.5	17.3	20.9	-	-
HCM Lane LOS	F	-	-	F	C	C	-	-
HCM 95th %tile Q(veh)	2	-	-	15.1	0.2	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	8	3	22	0	1	15	120	3213	7	32	1155	76
Future Vol, veh/h	8	3	22	0	1	15	120	3213	7	32	1155	76
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	40
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	3	23	0	1	16	126	3382	7	34	1216	80

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2931	4967	652	4195	5003	1735	1298	0	0	3389	0	0
Stage 1	1325	1325	-	3638	3638	-	-	-	-	-	-	-
Stage 2	1606	3642	-	557	1365	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	16	~ 1	352	2	~ 1	65	280	-	-	~ 23	-	-
Stage 1	118	223	-	2	14	-	-	-	-	-	-	-
Stage 2	97	14	-	440	214	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	351	-	~ 1	63	280	-	-	~ 22	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	65	223	-	1	8	-	-	-	-	-	-	-
Stage 2	34	8	-	404	214	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			1	16.3
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	280	-	-	-	-	~ 22	-	-
HCM Lane V/C Ratio	0.451	-	-	-	-	1.531	-	-
HCM Control Delay (s)	28	-	-	-	-$	644.5	-	-
HCM Lane LOS	D	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	2.2	-	-	-	-	4.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	178.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	0	103	0	0	16	40	1617	3	18	2625	21
Future Vol, veh/h	25	0	103	0	0	16	40	1617	3	18	2625	21
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	1	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	0	105	0	0	16	41	1650	3	18	2679	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3469	4462	1352	2842	4471	854	2701	0	0	1653	0	0
Stage 1	2727	2727	-	1733	1733	-	-	-	-	-	-	-
Stage 2	742	1735	-	1109	2738	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	~ 7	1	120	19	1	259	54	-	-	187	-	-
Stage 1	~ 11	43	-	60	141	-	-	-	-	-	-	-
Stage 2	339	140	-	201	43	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 2	0	120	1	0	253	54	-	-	183	-	-
Mov Cap-2 Maneuver	~ 2	0	-	1	0	-	-	-	-	-	-	-
Stage 1	~ 3	39	-	14	34	-	-	-	-	-	-	-
Stage 2	75	34	-	22	39	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 6157.8	20.2	4.3	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	54	-	-	10	253	183	-	-
HCM Lane V/C Ratio	0.756	-	-	13.061	0.065	0.1	-	-
HCM Control Delay (s)	177	-	$	6157.8	20.2	26.9	-	-
HCM Lane LOS	F	-	-	F	C	D	-	-
HCM 95th %tile Q(veh)	3.2	-	-	17.8	0.2	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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(626) 796.2322 Fax (626) 792.0941

INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: Duncan Avenue-Duncan Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU12

Sepulveda Boulevard @ Duncan Avenue-Duncan Drive
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	77	1600	0.048	40	117	1600	0.073	0	117	1600	0.073	3	0	80	1600	0.050	40	120	1600	0.075	0	120	1600	0.075
NB Thru	2938	4800	0.614 *	2	2940	4800	0.614 *	0	2940	4800	0.614 *	119	154	3211	4800	0.671 *	2	3213	4800	0.671 *	0	3213	4800	0.671 *
NB Right	9	0	0.000	-2	7	0	0.000	0	7	0	0.000	0	0	9	0	0.000	-2	7	0	0.000	0	7	0	0.000
SB Left	34	1600	0.021 *	-3	31	1600	0.019 *	0	31	1600	0.019 *	1	0	35	1600	0.022 *	-3	32	1600	0.020 *	0	32	1600	0.020 *
SB Thru	1003	4800	0.216	-12	991	4800	0.222	0	991	4800	0.222	41	123	1167	4800	0.250	-12	1155	4800	0.256	0	1155	4800	0.256
SB Right	32	0	0.000	43	75	0	0.000	0	75	0	0.000	1	0	33	0	0.000	43	76	0	0.000	0	76	0	0.000
EB Left	5	0	0.003	3	8	0	0.005	0	8	0	0.005	0	0	5	0	0.003	3	8	0	0.005	0	8	0	0.005
EB Thru	3	1600	0.016	0	3	1600	0.020 *	0	3	1600	0.020 *	0	0	3	1600	0.016	0	3	1600	0.021 *	0	3	1600	0.021 *
EB Right	17	0	0.000	4	21	0	0.000	0	21	0	0.000	1	0	18	0	0.000	4	22	0	0.000	0	22	0	0.000
WB Left	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	1	1600	0.013	0	1	1600	0.009	0	1	1600	0.009	0	0	1	1600	0.013	0	1	1600	0.010	0	1	1600	0.010
WB Right	19	0	0.000	-5	14	0	0.000	0	14	0	0.000	1	0	20	0	0.000	-5	15	0	0.000	0	15	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.751				0.753				0.753					0.809				0.811				0.811
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Sepulveda Boulevard
E-W St: Duncan Avenue-Duncan Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU12

Sepulveda Boulevard @ Duncan Avenue-Duncan Drive
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	-2	38	1600	0.024 *	0	38	1600	0.024 *	2	0	42	1600	0.026 *	-2	40	1600	0.025 *	0	40	1600	0.025 *
NB Thru	1356	4800	0.284	13	1369	4800	0.286	0	1369	4800	0.286	55	193	1604	4800	0.336	13	1617	4800	0.338	0	1617	4800	0.338
NB Right	8	0	0.000	-5	3	0	0.000	0	3	0	0.000	0	0	8	0	0.000	-5	3	0	0.000	0	3	0	0.000
SB Left	25	1600	0.016	-8	17	1600	0.011	0	17	1600	0.011	1	0	26	1600	0.016	-8	18	1600	0.011	0	18	1600	0.011
SB Thru	2292	4800	0.481 *	-2	2290	4800	0.481 *	0	2290	4800	0.481 *	93	242	2627	4800	0.551 *	-2	2625	4800	0.551 *	0	2625	4800	0.551 *
SB Right	18	0	0.000	2	20	0	0.000	0	20	0	0.000	1	0	19	0	0.000	2	21	0	0.000	0	21	0	0.000
EB Left	5	0	0.003	20	25	0	0.016	0	25	0	0.016	0	0	5	0	0.003	20	25	0	0.016	0	25	0	0.016
EB Thru	1	1600	0.033 *	-1	0	1600	0.079 *	0	0	1600	0.079 *	0	0	1	1600	0.034 *	-1	0	1600	0.080 *	0	0	1600	0.080 *
EB Right	46	0	0.000	55	101	0	0.000	0	101	0	0.000	2	0	48	0	0.000	55	103	0	0.000	0	103	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	1600	0.019	0	0	1600	0.009	0	0	1600	0.009	0	0	0	1600	0.019	0	0	1600	0.010	0	0	1600	0.010
WB Right	30	0	0.000	-15	15	0	0.000	0	15	0	0.000	1	0	31	0	0.000	-15	16	0	0.000	0	16	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.639				0.684				0.684					0.711				0.756				0.756
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Longfellow Avenue-Longfellow Drive

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Longfellow Avenue-Longfellow Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU13

Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	7	1600	0.004	0	7	1600	0.004	0	7	1600	0.004	0	0	7	1600	0.004	0	7	1600	0.004	0	7	1600	0.004
NB Thru	3038	4800	0.637 *	42	3080	4800	0.648 *	0	3080	4800	0.648 *	123	154	3315	4800	0.695 *	42	3357	4800	0.706 *	0	3357	4800	0.706 *
NB Right	21	0	0.000	11	32	0	0.000	0	32	0	0.000	1	0	22	0	0.000	11	33	0	0.000	0	33	0	0.000
SB Left	47	1600	0.029 *	12	59	1600	0.037 *	0	59	1600	0.037 *	2	0	49	1600	0.031 *	12	61	1600	0.038 *	0	61	1600	0.038 *
SB Thru	963	4800	0.203	-20	943	4800	0.199	0	943	4800	0.199	39	123	1125	4800	0.237	-20	1105	4800	0.233	0	1105	4800	0.233
SB Right	11	0	0.000	0	11	0	0.000	0	11	0	0.000	0	0	11	0	0.000	0	11	0	0.000	0	11	0	0.000
EB Left	11	0	0.007 *	0	11	0	0.007 *	0	11	0	0.007 *	0	0	11	0	0.007 *	0	11	0	0.007 *	0	11	0	0.007 *
EB Thru	25	1600	0.029	2	27	1600	0.030	0	27	1600	0.030	1	0	26	1600	0.029	2	28	1600	0.031	0	28	1600	0.031
EB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
WB Left	15	1600	0.009	-2	13	1600	0.008	0	13	1600	0.008	1	0	16	1600	0.010	-2	14	1600	0.009	0	14	1600	0.009
WB Thru	18	1600	0.041 *	0	18	1600	0.041 *	0	18	1600	0.041 *	1	0	19	1600	0.043 *	0	19	1600	0.043 *	0	19	1600	0.043 *
WB Right	47	0	0.000	1	48	0	0.000	0	48	0	0.000	2	0	49	0	0.000	1	50	0	0.000	0	50	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.814				0.833				0.833					0.875				0.894				0.894
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Longfellow Avenue-Longfellow Drive

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Longfellow Avenue-Longfellow Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU13

Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	24	1600	0.015 *	0	24	1600	0.015 *	0	24	1600	0.015 *	1	0	25	1600	0.016 *	0	25	1600	0.016 *	0	25	1600	0.016 *
NB Thru	1338	4800	0.283	-6	1332	4800	0.281	0	1332	4800	0.281	54	193	1585	4800	0.335	-6	1579	4800	0.333	0	1579	4800	0.333
NB Right	21	0	0.000	-3	18	0	0.000	0	18	0	0.000	1	0	22	0	0.000	-3	19	0	0.000	0	19	0	0.000
SB Left	20	1600	0.013	-4	16	1600	0.010	0	16	1600	0.010	1	0	21	1600	0.013	-4	17	1600	0.011	0	17	1600	0.011
SB Thru	2398	4800	0.502 *	45	2443	4800	0.512 *	0	2443	4800	0.512 *	97	242	2737	4800	0.573 *	45	2782	4800	0.583 *	0	2782	4800	0.583 *
SB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
EB Left	13	0	0.008	0	13	0	0.008	0	13	0	0.008	1	0	14	0	0.009	0	14	0	0.009	0	14	0	0.009
EB Thru	14	1600	0.026 *	0	14	1600	0.026 *	0	14	1600	0.026 *	1	0	15	1600	0.028 *	0	15	1600	0.028 *	0	15	1600	0.028 *
EB Right	15	0	0.000	0	15	0	0.000	0	15	0	0.000	1	0	16	0	0.000	0	16	0	0.000	0	16	0	0.000
WB Left	39	1600	0.024 *	7	46	1600	0.029 *	0	46	1600	0.029 *	2	0	41	1600	0.026 *	7	48	1600	0.030 *	0	48	1600	0.030 *
WB Thru	17	1600	0.027	0	17	1600	0.028	0	17	1600	0.028	1	0	18	1600	0.028	0	18	1600	0.029	0	18	1600	0.029
WB Right	26	0	0.000	1	27	0	0.000	0	27	0	0.000	1	0	27	0	0.000	1	28	0	0.000	0	28	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.668				0.682				0.682					0.743				0.756				0.756
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	3	53	29	3102	926	22
Future Vol, veh/h	3	53	29	3102	926	22
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	55	30	3231	965	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2329	494	988	0	-	0
Stage 1	976	-	-	-	-	-
Stage 2	1353	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	62	446	397	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	57	446	397	-	-	-
Mov Cap-2 Maneuver	57	-	-	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	169	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.4	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	397	-	327	-	-
HCM Lane V/C Ratio	0.076	-	0.178	-	-
HCM Control Delay (s)	14.8	-	18.4	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	43	5	1385	2493	10
Future Vol, veh/h	4	43	5	1385	2493	10
Conflicting Peds, #/hr	0	0	0	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	44	5	1428	2570	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3156	1290	2580	0	-	0
Stage 1	2575	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	21	132	63	-	-	-
Stage 1	24	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	19	132	63	-	-	-
Mov Cap-2 Maneuver	19	-	-	-	-	-
Stage 1	24	-	-	-	-	-
Stage 2	438	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	87.5	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	63	-	88	-	-
HCM Lane V/C Ratio	0.082	-	0.551	-	-
HCM Control Delay (s)	67.2	-	87.5	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	0.3	-	2.5	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	3	55	31	3380	1087	24
Future Vol, veh/h	3	55	31	3380	1087	24
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	57	32	3521	1132	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2618	579	1157	0	-	0
Stage 1	1145	-	-	-	-	-
Stage 2	1473	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	43	393	328	-	-	-
Stage 1	197	-	-	-	-	-
Stage 2	157	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	39	393	328	-	-	-
Mov Cap-2 Maneuver	39	-	-	-	-	-
Stage 1	197	-	-	-	-	-
Stage 2	142	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.4	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	328	-	267	-	-
HCM Lane V/C Ratio	0.098	-	0.226	-	-
HCM Control Delay (s)	17.2	-	22.4	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.8	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	46	5	1634	2834	10
Future Vol, veh/h	4	46	5	1634	2834	10
Conflicting Peds, #/hr	0	0	0	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	47	5	1685	2922	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3611	1466	2932	0	-	0
Stage 1	2927	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	12	100	41	-	-	-
Stage 1	14	-	-	-	-	-
Stage 2	421	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	11	100	41	-	-	-
Mov Cap-2 Maneuver	11	-	-	-	-	-
Stage 1	14	-	-	-	-	-
Stage 2	370	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	183	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	41	-	61	-	-
HCM Lane V/C Ratio	0.126	-	0.845	-	-
HCM Control Delay (s)	105	-	183	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	0.4	-	3.8	-	-

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 30th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU14

Pacific Coast Highway @ 30th Street
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	47	1600	0.029	-18	29	1600	0.018	0	29	1600	0.018	2	0	49	1600	0.031	-18	31	1600	0.019	0	31	1600	0.019
NB Thru	3047	4800	0.635 *	55	3102	4800	0.646 *	0	3102	4800	0.646 *	124	154	3325	4800	0.693 *	55	3380	4800	0.704 *	0	3380	4800	0.704 *
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
SB Thru	929	4800	0.201	-3	926	4800	0.198	0	926	4800	0.198	38	123	1090	4800	0.235	-3	1087	4800	0.231	0	1087	4800	0.231
SB Right	37	0	0.000	-15	22	0	0.000	0	22	0	0.000	2	0	39	0	0.000	-15	24	0	0.000	0	24	0	0.000
EB Left	3	0	0.002	0	3	0	0.002	0	3	0	0.002	0	0	3	0	0.002	0	3	0	0.002	0	3	0	0.002
EB Thru	0	1600	0.035 *	0	0	1600	0.035 *	0	0	1600	0.035 *	0	0	0	1600	0.036 *	0	0	1600	0.036 *	0	0	1600	0.036 *
EB Right	53	0	0.000	0	53	0	0.000	0	53	0	0.000	2	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.770				0.781				0.781					0.829				0.840				0.840
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turn 3-7 PM

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 30th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU14

Pacific Coast Highway @ 30th Street
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *	0	0	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *
NB Thru	1389	4800	0.289	-4	1385	4800	0.289	0	1385	4800	0.289	56	193	1638	4800	0.341	-4	1634	4800	0.340	0	1634	4800	0.340
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Thru	2438	4800	0.510 *	55	2493	4800	0.521 *	0	2493	4800	0.521 *	99	242	2779	4800	0.581 *	55	2834	4800	0.593 *	0	2834	4800	0.593 *
SB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
EB Left	4	0	0.003	0	4	0	0.003	0	4	0	0.003	0	0	4	0	0.003	0	4	0	0.003	0	4	0	0.003
EB Thru	0	1600	0.041 *	0	0	1600	0.029 *	0	0	1600	0.029 *	0	0	0	1600	0.043 *	0	0	1600	0.031 *	0	0	1600	0.031 *
EB Right	62	0	0.000	-19	43	0	0.000	0	43	0	0.000	3	0	65	0	0.000	-19	46	0	0.000	0	46	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.654				0.654				0.654					0.727				0.727				0.727
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	10.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	67	3075	18	49	933
Future Vol, veh/h	0	67	3075	18	49	933
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	70	3203	19	51	972

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3704	1611	0	0	3222	0
Stage 1	3213	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	10	80	-	-	~ 29	-
Stage 1	9	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	10	80	-	-	~ 29	-
Mov Cap-2 Maneuver	10	-	-	-	-	-
Stage 1	9	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	157.3	0	32.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	80	~ 29	-
HCM Lane V/C Ratio	-	-	0.872	1.76	-
HCM Control Delay (s)	-	-	157.3	$ 657.3	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	4.5	6	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	52	1350	24	3	2547
Future Vol, veh/h	0	52	1350	24	3	2547
Conflicting Peds, #/hr	0	0	0	44	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	1378	24	3	2599

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2436	701	0	0	1402	0
Stage 1	1390	-	-	-	-	-
Stage 2	1046	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	54	327	-	-	249	-
Stage 1	139	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	51	327	-	-	249	-
Mov Cap-2 Maneuver	51	-	-	-	-	-
Stage 1	139	-	-	-	-	-
Stage 2	257	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	327	249	-
HCM Lane V/C Ratio	-	-	0.162	0.012	-
HCM Control Delay (s)	-	-	18.1	19.6	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	17

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	70	3352	19	51	1094
Future Vol, veh/h	0	70	3352	19	51	1094
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	3492	20	53	1140

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	4064	1756	0	0	3511	0
Stage 1	3502	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	6	~ 63	-	-	~ 20	-
Stage 1	6	-	-	-	-	-
Stage 2	487	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	6	~ 63	-	-	~ 20	-
Mov Cap-2 Maneuver	6	-	-	-	-	-
Stage 1	6	-	-	-	-	-
Stage 2	485	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	273.7	0	51.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	63	~ 20	-
HCM Lane V/C Ratio	-	-	1.157	2.656	-
HCM Control Delay (s)	-	-	273.7	$ 1152.7	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	5.9	7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	54	1598	25	3	2891
Future Vol, veh/h	0	54	1598	25	3	2891
Conflicting Peds, #/hr	0	0	0	44	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	55	1631	26	3	2950

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2829	828	0	0	1656	0
Stage 1	1643	-	-	-	-	-
Stage 2	1186	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	33	270	-	-	186	-
Stage 1	96	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	31	270	-	-	186	-
Mov Cap-2 Maneuver	31	-	-	-	-	-
Stage 1	96	-	-	-	-	-
Stage 2	214	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	270	186	-
HCM Lane V/C Ratio	-	-	0.204	0.016	-
HCM Control Delay (s)	-	-	21.7	24.7	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Keats Street

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Keats Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU15

Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Thru	3038	4800	0.637 *	37	3075	4800	0.644 *	0	3075	4800	0.644 *	123	154	3315	4800	0.695 *	37	3352	4800	0.702 *	0	3352	4800	0.702 *
NB Right	18	0	0.000	0	18	0	0.000	0	18	0	0.000	1	0	19	0	0.000	0	19	0	0.000	0	19	0	0.000
SB Left [3]	49	1600	0.031 *	0	49	1600	0.031 *	0	49	1600	0.031 *	2	0	51	1600	0.032 *	0	51	1600	0.032 *	0	51	1600	0.032 *
SB Thru	936	4800	0.195	-3	933	4800	0.194	0	933	4800	0.194	38	123	1097	4800	0.229	-3	1094	4800	0.228	0	1094	4800	0.228
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	1600	0.000	0	0	1600	0.000
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	1600	0.042 *	0	0	1600	0.042 *	0	0	1600	0.042 *	0	0	0	1600	0.044 *	0	0	1600	0.044 *	0	0	1600	0.044 *
WB Right	67	0	0.000	0	67	0	0.000	0	67	0	0.000	3	0	70	0	0.000	0	70	0	0.000	0	70	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.809				0.817				0.817					0.870				0.878				0.878
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Keats Street

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Keats Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU15

Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	1354	4800	0.287	-4	1350	4800	0.286	0	1350	4800	0.286	55	193	1602	4800	0.339	-4	1598	4800	0.338	0	1598	4800	0.338
NB Right	24	0	0.000	0	24	0	0.000	0	24	0	0.000	1	0	25	0	0.000	0	25	0	0.000	0	25	0	0.000
SB Left [3]	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002	0	0	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002
SB Thru	2511	4800	0.523 *	36	2547	4800	0.531 *	0	2547	4800	0.531 *	102	242	2855	4800	0.595 *	36	2891	4800	0.602 *	0	2891	4800	0.602 *
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	1600	0.000	0	0	1600	0.000
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	1600	0.033 *	0	0	1600	0.033 *	0	0	1600	0.033 *	0	0	0	1600	0.034 *	0	0	1600	0.034 *	0	0	1600	0.034 *
WB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	2	0	54	0	0.000	0	54	0	0.000	0	54	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.656				0.663				0.663					0.729				0.736				0.736
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	39	2980	6	34	954
Future Vol, veh/h	0	39	2980	6	34	954
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	3072	6	35	984

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3539	1539	0	0	3078	0
Stage 1	3075	-	-	-	-	-
Stage 2	464	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	13	89	-	-	~ 34	-
Stage 1	11	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	13	89	-	-	~ 34	-
Mov Cap-2 Maneuver	13	-	-	-	-	-
Stage 1	11	-	-	-	-	-
Stage 2	546	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	75.2	0	11.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	89	~ 34	-
HCM Lane V/C Ratio	-	-	0.452	1.031	-
HCM Control Delay (s)	-	-	75.2	$ 339.6	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	1.9	3.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	7	50	1293	17	58	2476
Future Vol, veh/h	7	50	1293	17	58	2476
Conflicting Peds, #/hr	0	0	0	14	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	51	1319	17	59	2527

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2457	668	0	0	1337	0
Stage 1	1328	-	-	-	-	-
Stage 2	1129	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	53	344	-	-	268	-
Stage 1	152	-	-	-	-	-
Stage 2	243	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	41	344	-	-	268	-
Mov Cap-2 Maneuver	41	-	-	-	-	-
Stage 1	152	-	-	-	-	-
Stage 2	187	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.3	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	180	268	-
HCM Lane V/C Ratio	-	-	0.323	0.221	-
HCM Control Delay (s)	-	-	34.3	22.2	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.3	0.8	-

Intersection	
Int Delay, s/veh	10.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	43	3251	6	39	1112
Future Vol, veh/h	5	43	3251	6	39	1112
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	44	3352	6	40	1146

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3894	1679	0	0	3358	0
Stage 1	3355	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	8	72	-	-	~ 24	-
Stage 1	7	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	8	72	-	-	~ 24	-
Mov Cap-2 Maneuver	8	-	-	-	-	-
Stage 1	7	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 395.2	0	22.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	39	~ 24	-
HCM Lane V/C Ratio	-	-	1.269	1.675	-
HCM Control Delay (s)	-	-	$ 395.2	$ 675.9	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	5	5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	24	60	1531	18	69	2808
Future Vol, veh/h	24	60	1531	18	69	2808
Conflicting Peds, #/hr	0	0	0	14	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	61	1562	18	70	2865

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2858	790	0	0	1581	0
Stage 1	1571	-	-	-	-	-
Stage 2	1287	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	32	286	-	-	203	-
Stage 1	107	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 21	286	-	-	203	-
Mov Cap-2 Maneuver	~ 21	-	-	-	-	-
Stage 1	107	-	-	-	-	-
Stage 2	129	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 357.8	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	62	203	-
HCM Lane V/C Ratio	-	-	1.382	0.347	-
HCM Control Delay (s)	-	-	$ 357.8	31.9	-
HCM Lane LOS	-	-	F	D	-
HCM 95th %tile Q(veh)	-	-	7.3	1.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Gould Avenue-Artesia Boulevard

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Gould Avenue-Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	46	1600	0.029	0	46	1600	0.029	0	46	1600	0.029	2	0	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030
NB Thru	2299	4800	0.479 *	21	2320	4800	0.483 *	0	2320	4800	0.483 *	93	105	2497	4800	0.520 *	21	2518	4800	0.525 *	0	2518	4800	0.525 *
NB Right	154	1600	0.096	0	154	1600	0.096	0	154	1600	0.096	6	42	202	1600	0.126	0	202	1600	0.126	0	202	1600	0.126
SB Left	176	2880	0.061 *	1	177	2880	0.061 *	0	177	2880	0.061 *	7	29	212	2880	0.074 *	1	213	2880	0.074 *	0	213	2880	0.074 *
SB Thru	706	4800	0.156	-1	705	4800	0.156	0	705	4800	0.156	29	88	823	4800	0.182	-1	822	4800	0.182	0	822	4800	0.182
SB Right	45	0	0.000	0	45	0	0.000	0	45	0	0.000	2	4	51	0	0.000	0	51	0	0.000	0	51	0	0.000
EB Left	92	1600	0.058 *	0	92	1600	0.058 *	0	92	1600	0.058 *	4	9	105	1600	0.066 *	0	105	1600	0.066 *	0	105	1600	0.066 *
EB Thru	363	3200	0.135	0	363	3200	0.135	0	363	3200	0.135	15	19	397	3200	0.147	0	397	3200	0.147	0	397	3200	0.147
EB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	3	0	72	0	0.000	0	72	0	0.000	0	72	0	0.000
WB Left	282	2880	0.098	0	282	2880	0.098	0	282	2880	0.098	11	61	354	2880	0.123	0	354	2880	0.123	0	354	2880	0.123
WB Thru	506	3200	0.158	0	506	3200	0.158	0	506	3200	0.158	21	28	555	3200	0.173	0	555	3200	0.173	0	555	3200	0.173
WB Right [3]	592	1600	0.309 *	15	607	1600	0.318 *	0	607	1600	0.318 *	24	44	660	1600	0.339 *	15	675	1600	0.348 *	0	675	1600	0.348 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.006				1.020				1.020					1.098				1.112				1.112
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Gould Avenue-Artesia Boulevard

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Gould Avenue-Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	0	40	1600	0.025 *	0	40	1600	0.025 *	2	0	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *
NB Thru	993	4800	0.207	-2	991	4800	0.206	0	991	4800	0.206	40	140	1173	4800	0.244	-2	1171	4800	0.244	0	1171	4800	0.244
NB Right	265	1600	0.166	0	265	1600	0.166	0	265	1600	0.166	11	109	385	1600	0.241	0	385	1600	0.241	0	385	1600	0.241
SB Left	481	2880	0.167	12	493	2880	0.171	0	493	2880	0.171	20	58	559	2880	0.194	12	571	2880	0.198	0	571	2880	0.198
SB Thru	1893	4800	0.408 *	16	1909	4800	0.412 *	0	1909	4800	0.412 *	77	177	2147	4800	0.465 *	16	2163	4800	0.468 *	0	2163	4800	0.468 *
SB Right	66	0	0.000	1	67	0	0.000	0	67	0	0.000	3	14	83	0	0.000	1	84	0	0.000	0	84	0	0.000
EB Left	67	1600	0.042	0	67	1600	0.042	0	67	1600	0.042	3	15	85	1600	0.053	0	85	1600	0.053	0	85	1600	0.053
EB Thru	404	3200	0.143 *	0	404	3200	0.143 *	0	404	3200	0.143 *	16	45	465	3200	0.163 *	0	465	3200	0.163 *	0	465	3200	0.163 *
EB Right	53	0	0.000	0	53	0	0.000	0	53	0	0.000	2	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
WB Left	268	2880	0.093 *	0	268	2880	0.093 *	0	268	2880	0.093 *	11	107	386	2880	0.134 *	0	386	2880	0.134 *	0	386	2880	0.134 *
WB Thru	346	3200	0.108	0	346	3200	0.108	0	346	3200	0.108	14	39	399	3200	0.125	0	399	3200	0.125	0	399	3200	0.125
WB Right [3]	274	1600	0.004	-2	272	1600	0.000	0	272	1600	0.000	11	48	333	1600	0.014	-2	331	1600	0.009	0	331	1600	0.009
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.769				0.773				0.773					0.887				0.891				0.891
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 21st Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU18

Pacific Coast Highway @ 21st Street
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	42	1600	0.026	0	42	1600	0.026	0	42	1600	0.026	2	0	44	1600	0.028	0	44	1600	0.028	0	44	1600	0.028
NB Thru	2477	4800	0.523 *	21	2498	4800	0.527 *	0	2498	4800	0.527 *	101	147	2725	4800	0.575 *	21	2746	4800	0.579 *	0	2746	4800	0.579 *
NB Right	33	0	0.000	0	33	0	0.000	0	33	0	0.000	1	0	34	0	0.000	0	34	0	0.000	0	34	0	0.000
SB Left	20	1600	0.013 *	0	20	1600	0.013 *	0	20	1600	0.013 *	1	5	26	1600	0.016 *	0	26	1600	0.016 *	0	26	1600	0.016 *
SB Thru	897	4800	0.190	-1	896	4800	0.190	0	896	4800	0.190	36	145	1078	4800	0.228	-1	1077	4800	0.228	0	1077	4800	0.228
SB Right	14	0	0.000	0	14	0	0.000	0	14	0	0.000	1	0	15	0	0.000	0	15	0	0.000	0	15	0	0.000
EB Left	54	0	0.034 *	0	54	0	0.034 *	0	54	0	0.034 *	2	0	56	0	0.035 *	0	56	0	0.035 *	0	56	0	0.035 *
EB Thru	84	1600	0.094	0	84	1600	0.094	0	84	1600	0.094	3	0	87	1600	0.098	0	87	1600	0.098	0	87	1600	0.098
EB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
WB Left	75	0	0.047	0	75	0	0.047	0	75	0	0.047	3	0	78	0	0.049	0	78	0	0.049	0	78	0	0.049
WB Thru	92	1600	0.144 *	0	92	1600	0.144 *	0	92	1600	0.144 *	4	0	96	1600	0.154 *	0	96	1600	0.154 *	0	96	1600	0.154 *
WB Right	63	0	0.000	0	63	0	0.000	0	63	0	0.000	3	6	72	0	0.000	0	72	0	0.000	0	72	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.813				0.817				0.817					0.880				0.884				0.884
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Pacific Coast Highway @ 21st Street

N-S St: Pacific Coast Highway
E-W St: 21st Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU18

Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	31	1600	0.019 *	0	31	1600	0.019 *	0	31	1600	0.019 *	1	0	32	1600	0.020 *	0	32	1600	0.020 *	0	32	1600	0.020 *
NB Thru	1245	4800	0.265	-2	1243	4800	0.264	0	1243	4800	0.264	51	240	1536	4800	0.325	-2	1534	4800	0.325	0	1534	4800	0.325
NB Right	25	0	0.000	0	25	0	0.000	0	25	0	0.000	1	0	26	0	0.000	0	26	0	0.000	0	26	0	0.000
SB Left	74	1600	0.046	0	74	1600	0.046	0	74	1600	0.046	3	20	97	1600	0.061	0	97	1600	0.061	0	97	1600	0.061
SB Thru	2074	4800	0.448 *	16	2090	4800	0.451 *	0	2090	4800	0.451 *	84	270	2428	4800	0.522 *	16	2444	4800	0.526 *	0	2444	4800	0.526 *
SB Right	76	0	0.000	0	76	0	0.000	0	76	0	0.000	3	0	79	0	0.000	0	79	0	0.000	0	79	0	0.000
EB Left	21	0	0.013 *	0	21	0	0.013 *	0	21	0	0.013 *	1	0	22	0	0.014 *	0	22	0	0.014 *	0	22	0	0.014 *
EB Thru	47	1600	0.051	0	47	1600	0.051	0	47	1600	0.051	2	0	49	1600	0.053	0	49	1600	0.053	0	49	1600	0.053
EB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
WB Left	33	0	0.021	0	33	0	0.021	0	33	0	0.021	1	0	34	0	0.021	0	34	0	0.021	0	34	0	0.021
WB Thru	56	1600	0.081 *	0	56	1600	0.081 *	0	56	1600	0.081 *	2	0	58	1600	0.099 *	0	58	1600	0.099 *	0	58	1600	0.099 *
WB Right	41	0	0.000	0	41	0	0.000	0	41	0	0.000	2	23	66	0	0.000	0	66	0	0.000	0	66	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.662				0.665				0.665					0.755				0.758				0.758
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 16th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU19

Pacific Coast Highway @ 16th Street
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044	3	0	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046
NB Thru	2311	4800	0.488 *	21	2332	4800	0.492 *	0	2332	4800	0.492 *	94	147	2552	4800	0.538 *	21	2573	4800	0.543 *	0	2573	4800	0.543 *
NB Right	30	0	0.000	0	30	0	0.000	0	30	0	0.000	1	0	31	0	0.000	0	31	0	0.000	0	31	0	0.000
SB Left	7	1600	0.004 *	0	7	1600	0.004 *	0	7	1600	0.004 *	0	0	7	1600	0.004 *	0	7	1600	0.004 *	0	7	1600	0.004 *
SB Thru	813	4800	0.169	-1	812	4800	0.169	0	812	4800	0.169	33	145	991	4800	0.206	-1	990	4800	0.206	0	990	4800	0.206
SB Right	159	1600	0.099	0	159	1600	0.099	0	159	1600	0.099	6	0	165	1600	0.103	0	165	1600	0.103	0	165	1600	0.103
EB Left [3]	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	3	0	82	1600	0.051 *	0	82	1600	0.051 *	0	82	1600	0.051 *
EB Thru [3]	2	0	0.000	0	2	0	0.000	0	2	0	0.000	0	0	2	0	0.000	0	2	0	0.000	0	2	0	0.000
EB Right [3]	52	1600	0.033	0	52	1600	0.033	0	52	1600	0.033	2	0	54	1600	0.034	0	54	1600	0.034	0	54	1600	0.034
WB Left [3]	29	0	0.018	0	29	0	0.018	0	29	0	0.018	1	0	30	0	0.019	0	30	0	0.019	0	30	0	0.019
WB Thru [3]	2	1600	0.035 *	0	2	1600	0.035 *	0	2	1600	0.035 *	0	0	2	1600	0.036 *	0	2	1600	0.036 *	0	2	1600	0.036 *
WB Right [3]	25	0	0.000	0	25	0	0.000	0	25	0	0.000	1	0	26	0	0.000	0	26	0	0.000	0	26	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.676				0.681				0.681					0.730				0.734				0.734
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Split-phase operation.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 16th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU19

Pacific Coast Highway @ 16th Street
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	89	1600	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *	4	0	93	1600	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *
NB Thru	1026	4800	0.218	-2	1024	4800	0.218	0	1024	4800	0.218	42	240	1308	4800	0.277	-2	1306	4800	0.277	0	1306	4800	0.277
NB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
SB Left	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003	0	0	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003
SB Thru	1884	4800	0.393 *	16	1900	4800	0.396 *	0	1900	4800	0.396 *	76	270	2230	4800	0.465 *	16	2246	4800	0.468 *	0	2246	4800	0.468 *
SB Right	271	1600	0.169	0	271	1600	0.169	0	271	1600	0.169	11	0	282	1600	0.176	0	282	1600	0.176	0	282	1600	0.176
EB Left [3]	167	1600	0.104 *	0	167	1600	0.104 *	0	167	1600	0.104 *	7	0	174	1600	0.109 *	0	174	1600	0.109 *	0	174	1600	0.109 *
EB Thru [3]	4	0	0.000	0	4	0	0.000	0	4	0	0.000	0	0	4	0	0.000	0	4	0	0.000	0	4	0	0.000
EB Right [3]	112	1600	0.070	0	112	1600	0.070	0	112	1600	0.070	5	0	117	1600	0.073	0	117	1600	0.073	0	117	1600	0.073
WB Left [3]	27	0	0.017	0	27	0	0.017	0	27	0	0.017	1	0	28	0	0.018	0	28	0	0.018	0	28	0	0.018
WB Thru [3]	0	1600	0.019 *	0	0	1600	0.019 *	0	0	1600	0.019 *	0	0	0	1600	0.020 *	0	0	1600	0.020 *	0	0	1600	0.020 *
WB Right [3]	4	0	0.000	0	4	0	0.000	0	4	0	0.000	0	0	4	0	0.000	0	4	0	0.000	0	4	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.672				0.675				0.675					0.751				0.755				0.755
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Split-phase operation.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: Pier Avenue-14th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU20

Pacific Coast Highway @ Pier Avenue-14th Street
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	329	2880	0.114	0	329	2880	0.114	0	329	2880	0.114	13	19	361	2880	0.125	0	361	2880	0.125	0	361	2880	0.125
NB Thru	2247	4800	0.470 *	20	2267	4800	0.474 *	0	2267	4800	0.474 *	91	134	2472	4800	0.517 *	20	2492	4800	0.521 *	0	2492	4800	0.521 *
NB Right	9	0	0.000	0	9	0	0.000	0	9	0	0.000	0	0	9	0	0.000	0	9	0	0.000	0	9	0	0.000
SB Left	0	1600	0.000 *	0	0	1600	0.000 *	0	0	1600	0.000 *	0	0	0	1600	0.000 *	0	0	1600	0.000 *	0	0	1600	0.000 *
SB Thru	809	4800	0.195	-1	808	4800	0.195	0	808	4800	0.195	33	126	968	4800	0.233	-1	967	4800	0.233	0	967	4800	0.233
SB Right	126	0	0.000	0	126	0	0.000	0	126	0	0.000	5	20	151	0	0.000	0	151	0	0.000	0	151	0	0.000
EB Left	247	2880	0.086 *	2	249	2880	0.086 *	0	249	2880	0.086 *	10	13	270	2880	0.094 *	2	272	2880	0.094 *	0	272	2880	0.094 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right [3,4]	186	1600	0.002	0	186	1600	0.002	0	186	1600	0.002	8	12	206	1600	0.003	0	206	1600	0.003	0	206	1600	0.003
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right [4]	3	1600	0.002 *	0	3	1600	0.002 *	0	3	1600	0.002 *	0	0	3	1600	0.002 *	0	3	1600	0.002 *	0	3	1600	0.002 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.658				0.663				0.663					0.713				0.717				0.717
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The eastbound right-turn lane has an overlapping phase with northbound left-turn phase.
4 No right-turn on red 6-9 AM and 3-7 PM.

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: Pier Avenue-14th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU20

Pacific Coast Highway @ Pier Avenue-14th Street
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	331	2880	0.115 *	0	331	2880	0.115 *	0	331	2880	0.115 *	13	17	361	2880	0.125 *	0	361	2880	0.125 *	0	361	2880	0.125 *
NB Thru	971	4800	0.205	-2	969	4800	0.205	0	969	4800	0.205	39	219	1229	4800	0.259	-2	1227	4800	0.259	0	1227	4800	0.259
NB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
SB Left	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003	0	0	4	1600	0.003	0	4	1600	0.003	0	4	1600	0.003
SB Thru	1846	4800	0.414 *	14	1860	4800	0.418 *	0	1860	4800	0.418 *	75	251	2172	4800	0.488 *	14	2186	4800	0.491 *	0	2186	4800	0.491 *
SB Right	143	0	0.000	2	145	0	0.000	0	145	0	0.000	6	20	169	0	0.000	2	171	0	0.000	0	171	0	0.000
EB Left	189	2880	0.066 *	0	189	2880	0.066 *	0	189	2880	0.066 *	8	21	218	2880	0.076 *	0	218	2880	0.076 *	0	218	2880	0.076 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right [3,4]	286	1600	0.064	0	286	1600	0.064	0	286	1600	0.064	12	18	316	1600	0.072	0	316	1600	0.072	0	316	1600	0.072
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right [4]	20	1600	0.013 *	0	20	1600	0.013 *	0	20	1600	0.013 *	1	0	21	1600	0.013 *	0	21	1600	0.013 *	0	21	1600	0.013 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.707				0.711				0.711					0.802				0.805				0.805
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The eastbound right-turn lane has an overlapping phase with northbound left-turn phase.
4 No right-turn on red 6-9 AM and 3-7 PM.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: Aviation Boulevard-10th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU21

Pacific Coast Highway @ Aviation Boulevard-10th Street
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	5	1600	0.003	0	5	1600	0.003	0	5	1600	0.003	0	0	5	1600	0.003	0	5	1600	0.003	0	5	1600	0.003
NB Thru	2363	4800	0.492 *	20	2383	4800	0.496 *	0	2383	4800	0.496 *	96	145	2604	4800	0.543 *	20	2624	4800	0.547 *	0	2624	4800	0.547 *
NB Right	767	1600	0.479	0	767	1600	0.479	0	767	1600	0.479	31	16	814	1600	0.509	0	814	1600	0.509	0	814	1600	0.509
SB Left	179	1600	0.112 *	0	179	1600	0.112 *	0	179	1600	0.112 *	7	5	191	1600	0.119 *	0	191	1600	0.119 *	0	191	1600	0.119 *
SB Thru	686	4800	0.143	-1	685	4800	0.143	0	685	4800	0.143	28	133	847	4800	0.177	-1	846	4800	0.176	0	846	4800	0.176
SB Right	1	0	0.000	0	1	0	0.000	0	1	0	0.000	0	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000
EB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *	0	0	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *
WB Left	655	0	0.205 *	0	655	0	0.205 *	0	655	0	0.205 *	27	20	702	0	0.219 *	0	702	0	0.219 *	0	702	0	0.219 *
WB Thru	1	3200	0.205	0	1	3200	0.205	0	1	3200	0.205	0	0	1	3200	0.220	0	1	3200	0.220	0	1	3200	0.220
WB Right [3,4]	296	1600	0.073	0	296	1600	0.073	0	296	1600	0.073	12	8	316	1600	0.078	0	316	1600	0.078	0	316	1600	0.078
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.912				0.916				0.916					0.984				0.989				0.989
LOS			E				E				E					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
4 No right-turn on red.

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INTERSECTION CAPACITY UTILIZATION

Pacific Coast Highway @ Aviation Boulevard-10th Street

N-S St: Pacific Coast Highway
E-W St: Aviation Boulevard-10th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU21

Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006	0	0	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006
NB Thru	1004	4800	0.209	-2	1002	4800	0.209	0	1002	4800	0.209	41	229	1274	4800	0.265	-2	1272	4800	0.265	0	1272	4800	0.265
NB Right	564	1600	0.353 *	0	564	1600	0.353 *	0	564	1600	0.353 *	23	39	626	1600	0.391 *	0	626	1600	0.391 *	0	626	1600	0.391 *
SB Left	291	1600	0.182 *	0	291	1600	0.182 *	0	291	1600	0.182 *	12	7	310	1600	0.194 *	0	310	1600	0.194 *	0	310	1600	0.194 *
SB Thru	1839	4800	0.383	14	1853	4800	0.386	0	1853	4800	0.386	75	262	2176	4800	0.453	14	2190	4800	0.456	0	2190	4800	0.456
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Right	1	1600	0.001	0	1	1600	0.001	0	1	1600	0.001	0	0	1	1600	0.001	0	1	1600	0.001	0	1	1600	0.001
WB Left	622	0	0.194	0	622	0	0.194	0	622	0	0.194	25	35	682	0	0.213	0	682	0	0.213	0	682	0	0.213
WB Thru	18	3200	0.200 *	0	18	3200	0.200 *	0	18	3200	0.200 *	1	0	19	3200	0.219 *	0	19	3200	0.219 *	0	19	3200	0.219 *
WB Right [3,4]	244	1600	0.000	0	244	1600	0.000	0	244	1600	0.000	10	7	261	1600	0.000	0	261	1600	0.000	0	261	1600	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.834				0.834				0.834					0.904				0.904				0.904
LOS			D				D				D					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
4 No right-turn on red.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Prospect Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU22

Prospect Avenue @ Artesia Boulevard
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	179	0	0.112 *	2	181	0	0.113 *	0	181	0	0.113 *	7	3	189	0	0.118 *	2	191	0	0.119 *	0	191	0	0.119 *
NB Thru	76	1600	0.159	0	76	1600	0.161	0	76	1600	0.161	3	0	79	1600	0.168	0	79	1600	0.169	0	79	1600	0.169
NB Right	224	1600	0.140	0	224	1600	0.140	0	224	1600	0.140	9	5	238	1600	0.149	0	238	1600	0.149	0	238	1600	0.149
SB Left	27	0	0.017	0	27	0	0.017	0	27	0	0.017	1	5	33	0	0.021	0	33	0	0.021	0	33	0	0.021
SB Thru	49	1600	0.075 *	0	49	1600	0.075 *	0	49	1600	0.075 *	2	2	53	1600	0.083 *	0	53	1600	0.083 *	0	53	1600	0.083 *
SB Right	44	0	0.000	0	44	0	0.000	0	44	0	0.000	2	0	46	0	0.000	0	46	0	0.000	0	46	0	0.000
EB Left	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *	2	0	44	1600	0.028 *	0	44	1600	0.028 *	0	44	1600	0.028 *
EB Thru	655	3200	0.241	0	655	3200	0.241	0	655	3200	0.241	27	89	771	3200	0.279	0	771	3200	0.279	0	771	3200	0.279
EB Right	116	0	0.000	0	116	0	0.000	0	116	0	0.000	5	0	121	0	0.000	0	121	0	0.000	0	121	0	0.000
WB Left	125	1600	0.078	0	125	1600	0.078	0	125	1600	0.078	5	6	136	1600	0.085	0	136	1600	0.085	0	136	1600	0.085
WB Thru	1151	3200	0.386 *	15	1166	3200	0.390 *	0	1166	3200	0.390 *	47	140	1338	3200	0.445 *	15	1353	3200	0.450 *	0	1353	3200	0.450 *
WB Right	83	0	0.000	0	83	0	0.000	0	83	0	0.000	3	0	86	0	0.000	0	86	0	0.000	0	86	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.699				0.705				0.705					0.773				0.779				0.779
LOS			B				C				C					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Prospect Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU22

Prospect Avenue @ Artesia Boulevard
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	98	0	0.061 *	0	98	0	0.061 *	0	98	0	0.061 *	4	6	108	0	0.068 *	0	108	0	0.068 *	0	108	0	0.068 *
NB Thru	40	1600	0.086	0	40	1600	0.086	0	40	1600	0.086	2	0	42	1600	0.094	0	42	1600	0.094	0	42	1600	0.094
NB Right	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033	2	20	75	1600	0.047	0	75	1600	0.047	0	75	1600	0.047
SB Left	50	0	0.031	0	50	0	0.031	0	50	0	0.031	2	17	69	0	0.043	0	69	0	0.043	0	69	0	0.043
SB Thru	97	1600	0.105 *	0	97	1600	0.105 *	0	97	1600	0.105 *	4	6	107	1600	0.124 *	0	107	1600	0.124 *	0	107	1600	0.124 *
SB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
EB Left	33	1600	0.021	0	33	1600	0.021	0	33	1600	0.021	1	0	34	1600	0.021	0	34	1600	0.021	0	34	1600	0.021
EB Thru	1072	3200	0.372 *	10	1082	3200	0.376 *	0	1082	3200	0.376 *	44	212	1328	3200	0.454 *	10	1338	3200	0.458 *	0	1338	3200	0.458 *
EB Right	119	0	0.000	2	121	0	0.000	0	121	0	0.000	5	0	124	0	0.000	2	126	0	0.000	0	126	0	0.000
WB Left	167	1600	0.104 *	0	167	1600	0.104 *	0	167	1600	0.104 *	7	23	197	1600	0.123 *	0	197	1600	0.123 *	0	197	1600	0.123 *
WB Thru	696	3200	0.229	-2	694	3200	0.229	0	694	3200	0.229	28	210	934	3200	0.304	-2	932	3200	0.304	0	932	3200	0.304
WB Right	38	0	0.000	0	38	0	0.000	0	38	0	0.000	2	0	40	0	0.000	0	40	0	0.000	0	40	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.743				0.747				0.747					0.868				0.872				0.872
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Prospect Avenue @ Aviation Boulevard
Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

N-S St: Prospect Avenue
E-W St: Aviation Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU23

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	85	1600	0.053	0	85	1600	0.053	0	85	1600	0.053	3	0	88	1600	0.055	0	88	1600	0.055	0	88	1600	0.055
NB Thru	262	1600	0.164	2	264	1600	0.165	0	264	1600	0.165	11	1	274	1600	0.171	2	276	1600	0.173	0	276	1600	0.173
NB Right	345	1600	0.216 *	0	345	1600	0.216 *	0	345	1600	0.216 *	14	0	359	1600	0.224 *	0	359	1600	0.224 *	0	359	1600	0.224 *
SB Left	45	1600	0.028 *	0	45	1600	0.028 *	0	45	1600	0.028 *	2	0	47	1600	0.029 *	0	47	1600	0.029 *	0	47	1600	0.029 *
SB Thru	132	1600	0.083	0	132	1600	0.083	0	132	1600	0.083	5	1	138	1600	0.086	0	138	1600	0.086	0	138	1600	0.086
SB Right	46	1600	0.029	0	46	1600	0.029	0	46	1600	0.029	2	0	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030
EB Left	68	1600	0.043	0	68	1600	0.043	0	68	1600	0.043	3	0	71	1600	0.044	0	71	1600	0.044	0	71	1600	0.044
EB Thru	765	3200	0.249 *	0	765	3200	0.249 *	0	765	3200	0.249 *	31	21	817	3200	0.266 *	0	817	3200	0.266 *	0	817	3200	0.266 *
EB Right	32	0	0.000	0	32	0	0.000	0	32	0	0.000	1	0	33	0	0.000	0	33	0	0.000	0	33	0	0.000
WB Left	164	1600	0.103 *	0	164	1600	0.103 *	0	164	1600	0.103 *	7	0	171	1600	0.107 *	0	171	1600	0.107 *	0	171	1600	0.107 *
WB Thru	755	3200	0.255	0	755	3200	0.255	0	755	3200	0.255	31	28	814	3200	0.274	0	814	3200	0.274	0	814	3200	0.274
WB Right	60	0	0.000	0	60	0	0.000	0	60	0	0.000	2	0	62	0	0.000	0	62	0	0.000	0	62	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.695				0.695				0.695					0.726				0.726				0.726
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Prospect Avenue @ Aviation Boulevard
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

N-S St: Prospect Avenue
E-W St: Aviation Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU23

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	3	0	82	1600	0.051 *	0	82	1600	0.051 *	0	82	1600	0.051 *
NB Thru	178	1600	0.111	0	178	1600	0.111	0	178	1600	0.111	7	3	188	1600	0.118	0	188	1600	0.118	0	188	1600	0.118
NB Right	231	1600	0.144	0	231	1600	0.144	0	231	1600	0.144	9	0	240	1600	0.150	0	240	1600	0.150	0	240	1600	0.150
SB Left	119	1600	0.074	0	119	1600	0.074	0	119	1600	0.074	5	0	124	1600	0.078	0	124	1600	0.078	0	124	1600	0.078
SB Thru	276	1600	0.173 *	2	278	1600	0.174 *	0	278	1600	0.174 *	11	3	290	1600	0.181 *	2	292	1600	0.183 *	0	292	1600	0.183 *
SB Right	41	1600	0.026	0	41	1600	0.026	0	41	1600	0.026	2	0	43	1600	0.027	0	43	1600	0.027	0	43	1600	0.027
EB Left	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033	2	0	55	1600	0.034	0	55	1600	0.034	0	55	1600	0.034
EB Thru	736	3200	0.257 *	0	736	3200	0.257 *	0	736	3200	0.257 *	30	46	812	3200	0.282 *	0	812	3200	0.282 *	0	812	3200	0.282 *
EB Right	87	0	0.000	0	87	0	0.000	0	87	0	0.000	4	0	91	0	0.000	0	91	0	0.000	0	91	0	0.000
WB Left	286	1600	0.179 *	0	286	1600	0.179 *	0	286	1600	0.179 *	12	0	298	1600	0.186 *	0	298	1600	0.186 *	0	298	1600	0.186 *
WB Thru	763	3200	0.253	0	763	3200	0.253	0	763	3200	0.253	31	42	836	3200	0.276	0	836	3200	0.276	0	836	3200	0.276
WB Right	45	0	0.000	0	45	0	0.000	0	45	0	0.000	2	0	47	0	0.000	0	47	0	0.000	0	47	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.758				0.759				0.759					0.801				0.802				0.802
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Meadows Avenue @ Artesia Boulevard

N-S St: Meadows Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU24

Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	74	0	0.046	0	74	0	0.046	0	74	0	0.046	3	0	77	0	0.048	0	77	0	0.048	0	77	0	0.048
SB Thru	0	1600	0.081 *	0	0	1600	0.081 *	0	0	1600	0.081 *	0	0	0	1600	0.084 *	0	0	1600	0.084 *	0	0	1600	0.084 *
SB Right	56	0	0.000	0	56	0	0.000	0	56	0	0.000	2	0	58	0	0.000	0	58	0	0.000	0	58	0	0.000
EB Left	99	1600	0.062 *	0	99	1600	0.062 *	0	99	1600	0.062 *	4	0	103	1600	0.064 *	0	103	1600	0.064 *	0	103	1600	0.064 *
EB Thru	835	3200	0.261	0	835	3200	0.261	0	835	3200	0.261	34	99	968	3200	0.303	0	968	3200	0.303	0	968	3200	0.303
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	1274	3200	0.447 *	15	1289	3200	0.452 *	0	1289	3200	0.452 *	52	145	1471	3200	0.511 *	15	1486	3200	0.515 *	0	1486	3200	0.515 *
WB Right	157	0	0.000	0	157	0	0.000	0	157	0	0.000	6	0	163	0	0.000	0	163	0	0.000	0	163	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.690				0.695				0.695					0.759				0.764				0.764
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Meadows Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU24

Meadows Avenue @ Artesia Boulevard
Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	152	0	0.095	0	152	0	0.095	0	152	0	0.095	6	0	158	0	0.099	0	158	0	0.099	0	158	0	0.099
SB Thru	0	1600	0.153 *	0	0	1600	0.153 *	0	0	1600	0.153 *	0	0	0	1600	0.159 *	0	0	1600	0.159 *	0	0	1600	0.159 *
SB Right	92	0	0.000	0	92	0	0.000	0	92	0	0.000	4	0	96	0	0.000	0	96	0	0.000	0	96	0	0.000
EB Left	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044	3	0	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046
EB Thru	1176	3200	0.368 *	10	1186	3200	0.371 *	0	1186	3200	0.371 *	48	250	1474	3200	0.461 *	10	1484	3200	0.464 *	0	1484	3200	0.464 *
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	909	3200	0.313	-2	907	3200	0.312	0	907	3200	0.312	37	233	1179	3200	0.398	-2	1177	3200	0.398	0	1177	3200	0.398
WB Right	92	0	0.000	0	92	0	0.000	0	92	0	0.000	4	0	96	0	0.000	0	96	0	0.000	0	96	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.620				0.623				0.623					0.719				0.723				0.723
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Peck Avenue-Ford Avenue @ Artesia Boulevard

N-S St: Peck Avenue-Ford Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU25

Peak hr: AM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	150	0	0.094	0	150	0	0.094	0	150	0	0.094	6	3	159	0	0.099	0	159	0	0.099	0	159	0	0.099
NB Thru	119	1600	0.174 *	0	119	1600	0.174 *	0	119	1600	0.174 *	5	0	124	1600	0.183 *	0	124	1600	0.183 *	0	124	1600	0.183 *
NB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
SB Left	81	0	0.051 *	0	81	0	0.051 *	0	81	0	0.051 *	3	14	98	0	0.061 *	0	98	0	0.061 *	0	98	0	0.061 *
SB Thru	24	1600	0.066	0	24	1600	0.066	0	24	1600	0.066	1	0	25	1600	0.077	0	25	1600	0.077	0	25	1600	0.077
SB Right	111	1600	0.069	0	111	1600	0.069	0	111	1600	0.069	5	0	116	1600	0.073	0	116	1600	0.073	0	116	1600	0.073
EB Left	145	1600	0.091 *	0	145	1600	0.091 *	0	145	1600	0.091 *	6	0	151	1600	0.094 *	0	151	1600	0.094 *	0	151	1600	0.094 *
EB Thru	699	3200	0.226	0	699	3200	0.226	0	699	3200	0.226	28	97	824	3200	0.266	0	824	3200	0.266	0	824	3200	0.266
EB Right	24	0	0.000	0	24	0	0.000	0	24	0	0.000	1	2	27	0	0.000	0	27	0	0.000	0	27	0	0.000
WB Left	26	1600	0.016	0	26	1600	0.016	0	26	1600	0.016	1	0	27	1600	0.017	0	27	1600	0.017	0	27	1600	0.017
WB Thru	1175	3200	0.397 *	15	1190	3200	0.402 *	0	1190	3200	0.402 *	48	142	1365	3200	0.464 *	15	1380	3200	0.469 *	0	1380	3200	0.469 *
WB Right	96	0	0.000	0	96	0	0.000	0	96	0	0.000	4	20	120	0	0.000	0	120	0	0.000	0	120	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.813				0.818				0.818					0.903				0.908				0.908
LOS			D				D				D					E				E				E

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Peck Avenue-Ford Avenue @ Artesia Boulevard

N-S St: Peck Avenue-Ford Avenue
E-W St: Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU25

Peak hr: PM
Annual Growth: 1.00%

Manhattan Beach Project Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	55	0	0.034 *	0	55	0	0.034 *	0	55	0	0.034 *	2	6	63	0	0.039 *	0	63	0	0.039 *	0	63	0	0.039 *
NB Thru	34	1600	0.061	0	34	1600	0.061	0	34	1600	0.061	1	0	35	1600	0.066	0	35	1600	0.066	0	35	1600	0.066
NB Right	8	0	0.000	0	8	0	0.000	0	8	0	0.000	0	0	8	0	0.000	0	8	0	0.000	0	8	0	0.000
SB Left	51	0	0.032	0	51	0	0.032	0	51	0	0.032	2	38	91	0	0.057	0	91	0	0.057	0	91	0	0.057
SB Thru	44	1600	0.059 *	0	44	1600	0.059 *	0	44	1600	0.059 *	2	0	46	1600	0.086 *	0	46	1600	0.086 *	0	46	1600	0.086 *
SB Right	86	1600	0.054	0	86	1600	0.054	0	86	1600	0.054	3	0	89	1600	0.056	0	89	1600	0.056	0	89	1600	0.056
EB Left	81	1600	0.051	0	81	1600	0.051	0	81	1600	0.051	3	0	84	1600	0.053	0	84	1600	0.053	0	84	1600	0.053
EB Thru	1094	3200	0.368 *	10	1104	3200	0.371 *	0	1104	3200	0.371 *	44	244	1382	3200	0.460 *	10	1392	3200	0.463 *	0	1392	3200	0.463 *
EB Right	82	0	0.000	0	82	0	0.000	0	82	0	0.000	3	6	91	0	0.000	0	91	0	0.000	0	91	0	0.000
WB Left	62	1600	0.039 *	0	62	1600	0.039 *	0	62	1600	0.039 *	3	0	65	1600	0.041 *	0	65	1600	0.041 *	0	65	1600	0.041 *
WB Thru	846	3200	0.280	-2	844	3200	0.279	0	844	3200	0.279	34	228	1108	3200	0.372	-2	1106	3200	0.372	0	1106	3200	0.372
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	2	32	83	0	0.000	0	83	0	0.000	0	83	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.600				0.603				0.603					0.726				0.729				0.729
LOS			A				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

APPENDIX E-3

305 S. SEPULVEDA BOULEVARD PROJECT ONLY
ICU AND LEVELS OF SERVICE EXPLANATION
HCM AND LEVELS OF SERVICE EXPLANATION
INTERSECTION LEVELS OF SERVICE DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing, The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics

Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

In the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board, 2000, level of service for unsignalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, in the absence of incidents, control, traffic, or geometric delay. Only the portion of total delay attributed to the traffic control measures, either traffic signals or stop signs, is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Level of Service criteria for unsignalized intersections are stated in terms of the average control delay per vehicle. The level of service is determined by the computed or measured control delay and is defined for each minor movement. Average control delay for any particular minor movement is a function of the service time for the approach and the degree of utilization. (Level of service is not defined for the intersection as a whole for two-way stop controlled intersections.)

Level of Service Criteria for TWSC/AWSC Intersections

Level of Service	Average Control Delay (Sec/Veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Level of Service (LOS) values are used to describe intersection operations with service levels varying from LOS A (free flow) to LOS F (jammed condition). The following descriptions summarize *HCM* criteria for each level of service:

LOS A describes operations with very low control delay, up to 10 seconds per vehicle.

LOS B describes operations with control delay greater than 10 and up to 15 seconds per vehicle.

LOS C describes operations with control delay greater than 15 and up to 25 seconds per vehicle.

LOS D describes operations with control delay greater than 25 and up to 35 seconds per vehicle.

LOS E describes operations with control delay greater than 35 and up to 50 seconds per vehicle.

LOS F describes operations with control delay in excess of 50 seconds per vehicle. For two-way stop controlled intersections, LOS F exists when there are insufficient gaps of suitable size to allow side-street demand to safely cross through a major-street traffic stream. This level of service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches.

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	8	3	21	0	1	17	117	2938	9	34	977	75
Future Vol, veh/h	8	3	21	0	1	17	117	2938	9	34	977	75
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	40
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	3	22	0	1	18	123	3093	9	36	1028	79

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2625	4489	558	3831	4525	1591	1109	0	0	3102	0	0
Stage 1	1141	1141	-	3344	3344	-	-	-	-	-	-	-
Stage 2	1484	3348	-	487	1181	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	26	~ 1	405	4	~ 1	82	347	-	-	~ 33	-	-
Stage 1	159	274	-	4	20	-	-	-	-	-	-	-
Stage 2	116	20	-	485	262	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	404	-	~ 1	79	346	-	-	~ 32	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	102	274	-	3	13	-	-	-	-	-	-	-
Stage 2	51	13	-	452	262	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.8	12
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	346	-	-	-	-	~ 32	-	-
HCM Lane V/C Ratio	0.356	-	-	-	-	1.118	-	-
HCM Control Delay (s)	21	-	-	-	-	$ 383.6	-	-
HCM Lane LOS	C	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	1.6	-	-	-	-	3.9	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	76.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	1	101	0	0	23	38	1356	8	25	2288	20
Future Vol, veh/h	25	1	101	0	0	23	38	1356	8	25	2288	20
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	1	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	1	103	0	0	23	39	1384	8	26	2335	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3028	3866	1180	2451	3872	723	2356	0	0	1392	0	0
Stage 1	2397	2397	-	1465	1465	-	-	-	-	-	-	-
Stage 2	631	1469	-	986	2407	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	~ 14	3	157	33	3	316	82	-	-	252	-	-
Stage 1	~ 20	64	-	94	191	-	-	-	-	-	-	-
Stage 2	397	190	-	240	64	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 7	~ 1	157	-	1	309	82	-	-	246	-	-
Mov Cap-2 Maneuver	~ 7	~ 1	-	-	1	-	-	-	-	-	-	-
Stage 1	~ 10	57	-	49	100	-	-	-	-	-	-	-
Stage 2	188	100	-	72	57	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 2304.4		2.3	0.2
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	82	-	-	24	-	246	-	-
HCM Lane V/C Ratio	0.473	-	-	5.4	-	0.104	-	-
HCM Control Delay (s)	83.3	-	-	$ 2304.4	-	21.3	-	-
HCM Lane LOS	F	-	-	F	-	C	-	-
HCM 95th %tile Q(veh)	2	-	-	16.2	-	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	8	3	22	0	1	18	120	3211	9	35	1141	76
Future Vol, veh/h	8	3	22	0	1	18	120	3211	9	35	1141	76
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	40
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	3	23	0	1	19	126	3380	9	37	1201	80

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2922	4959	645	4195	4994	1735	1283	0	0	3389	0	0
Stage 1	1317	1317	-	3637	3637	-	-	-	-	-	-	-
Stage 2	1605	3642	-	558	1357	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	16	~ 1	356	2	~ 1	65	285	-	-	~ 23	-	-
Stage 1	119	225	-	2	14	-	-	-	-	-	-	-
Stage 2	97	14	-	439	215	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	355	-	~ 1	63	285	-	-	~ 22	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	66	225	-	1	8	-	-	-	-	-	-	-
Stage 2	32	8	-	404	215	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			1	19.7
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	285	-	-	-	-	~ 22	-	-
HCM Lane V/C Ratio	0.443	-	-	-	-	1.675	-	-
HCM Control Delay (s)	27.3	-	-	-	-	$ 703	-	-
HCM Lane LOS	D	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	2.2	-	-	-	-	4.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	180.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	1	103	0	0	24	40	1604	8	26	2623	21
Future Vol, veh/h	25	1	103	0	0	24	40	1604	8	26	2623	21
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	1	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	1	105	0	0	24	41	1637	8	27	2677	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3477	4468	1351	2847	4474	849	2699	0	0	1645	0	0
Stage 1	2741	2741	-	1722	1722	-	-	-	-	-	-	-
Stage 2	736	1727	-	1125	2752	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	~ 7	~ 1	120	18	1	261	55	-	-	189	-	-
Stage 1	~ 11	42	-	61	142	-	-	-	-	-	-	-
Stage 2	342	142	-	196	42	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 2	0	120	1	0	255	55	-	-	185	-	-
Mov Cap-2 Maneuver	~ 2	0	-	1	0	-	-	-	-	-	-	-
Stage 1	~ 3	36	-	16	36	-	-	-	-	-	-	-
Stage 2	77	36	-	20	36	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 6203.7	20.6	4.1	0.3
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	55	-	-	10	255	185	-	-
HCM Lane V/C Ratio	0.742	-	-	13.163	0.096	0.143	-	-
HCM Control Delay (s)	171.3	-	$	6203.7	20.6	27.7	-	-
HCM Lane LOS	F	-	-	F	C	D	-	-
HCM 95th %tile Q(veh)	3.1	-	-	18	0.3	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Duncan Avenue-Duncan Drive

N-S St: Sepulveda Boulevard
E-W St: Duncan Avenue-Duncan Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU12

Peak hr: AM
Annual Growth: 1.00%

305 S. Sepulveda Boulevard Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	77	1600	0.048	40	117	1600	0.073	0	117	1600	0.073	3	0	80	1600	0.050	40	120	1600	0.075	0	120	1600	0.075
NB Thru	2938	4800	0.614 *	0	2938	4800	0.614 *	0	2938	4800	0.614 *	119	154	3211	4800	0.671 *	0	3211	4800	0.671 *	0	3211	4800	0.671 *
NB Right	9	0	0.000	0	9	0	0.000	0	9	0	0.000	0	0	9	0	0.000	0	9	0	0.000	0	9	0	0.000
SB Left	34	1600	0.021 *	0	34	1600	0.021 *	0	34	1600	0.021 *	1	0	35	1600	0.022 *	0	35	1600	0.022 *	0	35	1600	0.022 *
SB Thru	1003	4800	0.216	-26	977	4800	0.219	0	977	4800	0.219	41	123	1167	4800	0.250	-26	1141	4800	0.254	0	1141	4800	0.254
SB Right	32	0	0.000	43	75	0	0.000	0	75	0	0.000	1	0	33	0	0.000	43	76	0	0.000	0	76	0	0.000
EB Left	5	0	0.003	3	8	0	0.005	0	8	0	0.005	0	0	5	0	0.003	3	8	0	0.005	0	8	0	0.005
EB Thru	3	1600	0.016	0	3	1600	0.020 *	0	3	1600	0.020 *	0	0	3	1600	0.016	0	3	1600	0.021 *	0	3	1600	0.021 *
EB Right	17	0	0.000	4	21	0	0.000	0	21	0	0.000	1	0	18	0	0.000	4	22	0	0.000	0	22	0	0.000
WB Left	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	1	1600	0.013	0	1	1600	0.011	0	1	1600	0.011	0	0	1	1600	0.013	0	1	1600	0.012	0	1	1600	0.012
WB Right	19	0	0.000	-2	17	0	0.000	0	17	0	0.000	1	0	20	0	0.000	-2	18	0	0.000	0	18	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.751				0.755				0.755					0.809				0.813				0.813
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Duncan Avenue-Duncan Drive

N-S St: Sepulveda Boulevard
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Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU12

Peak hr: PM
Annual Growth: 1.00%

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Date: 5/23/2016
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	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	-2	38	1600	0.024 *	0	38	1600	0.024 *	2	0	42	1600	0.026 *	-2	40	1600	0.025 *	0	40	1600	0.025 *
NB Thru	1356	4800	0.284	0	1356	4800	0.284	0	1356	4800	0.284	55	193	1604	4800	0.336	0	1604	4800	0.336	0	1604	4800	0.336
NB Right	8	0	0.000	0	8	0	0.000	0	8	0	0.000	0	0	8	0	0.000	0	8	0	0.000	0	8	0	0.000
SB Left	25	1600	0.016	0	25	1600	0.016	0	25	1600	0.016	1	0	26	1600	0.016	0	26	1600	0.016	0	26	1600	0.016
SB Thru	2292	4800	0.481 *	-4	2288	4800	0.481 *	0	2288	4800	0.481 *	93	242	2627	4800	0.551 *	-4	2623	4800	0.551 *	0	2623	4800	0.551 *
SB Right	18	0	0.000	2	20	0	0.000	0	20	0	0.000	1	0	19	0	0.000	2	21	0	0.000	0	21	0	0.000
EB Left	5	0	0.003	20	25	0	0.016	0	25	0	0.016	0	0	5	0	0.003	20	25	0	0.016	0	25	0	0.016
EB Thru	1	1600	0.033 *	0	1	1600	0.079 *	0	1	1600	0.079 *	0	0	1	1600	0.034 *	0	1	1600	0.081 *	0	1	1600	0.081 *
EB Right	46	0	0.000	55	101	0	0.000	0	101	0	0.000	2	0	48	0	0.000	55	103	0	0.000	0	103	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	1600	0.019	0	0	1600	0.014	0	0	1600	0.014	0	0	0	1600	0.019	0	0	1600	0.015	0	0	1600	0.015
WB Right	30	0	0.000	-7	23	0	0.000	0	23	0	0.000	1	0	31	0	0.000	-7	24	0	0.000	0	24	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.639				0.684				0.684					0.711				0.756				0.756
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Longfellow Avenue-Longfellow Drive

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Longfellow Avenue-Longfellow Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU13

Peak hr: AM
Annual Growth: 1.00%

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

305 S. Sepulveda Boulevard Only

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	7	1600	0.004	0	7	1600	0.004	0	7	1600	0.004	0	0	7	1600	0.004	0	7	1600	0.004	0	7	1600	0.004
NB Thru	3038	4800	0.637 *	39	3077	4800	0.645 *	0	3077	4800	0.645 *	123	154	3315	4800	0.695 *	39	3354	4800	0.703 *	0	3354	4800	0.703 *
NB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
SB Left	47	1600	0.029 *	-2	45	1600	0.028 *	0	45	1600	0.028 *	2	0	49	1600	0.031 *	-2	47	1600	0.029 *	0	47	1600	0.029 *
SB Thru	963	4800	0.203	-20	943	4800	0.199	0	943	4800	0.199	39	123	1125	4800	0.237	-20	1105	4800	0.233	0	1105	4800	0.233
SB Right	11	0	0.000	0	11	0	0.000	0	11	0	0.000	0	0	11	0	0.000	0	11	0	0.000	0	11	0	0.000
EB Left	11	0	0.007 *	0	11	0	0.007 *	0	11	0	0.007 *	0	0	11	0	0.007 *	0	11	0	0.007 *	0	11	0	0.007 *
EB Thru	25	1600	0.029	0	25	1600	0.029	0	25	1600	0.029	1	0	26	1600	0.029	0	26	1600	0.029	0	26	1600	0.029
EB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
WB Left	15	1600	0.009	0	15	1600	0.009	0	15	1600	0.009	1	0	16	1600	0.010	0	16	1600	0.010	0	16	1600	0.010
WB Thru	18	1600	0.041 *	0	18	1600	0.041 *	0	18	1600	0.041 *	1	0	19	1600	0.043 *	0	19	1600	0.043 *	0	19	1600	0.043 *
WB Right	47	0	0.000	1	48	0	0.000	0	48	0	0.000	2	0	49	0	0.000	1	50	0	0.000	0	50	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.814				0.822				0.822					0.875				0.883				0.883
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Longfellow Avenue-Longfellow Drive

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Longfellow Avenue-Longfellow Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU13

Peak hr: PM
Annual Growth: 1.00%

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

305 S. Sepulveda Boulevard Only

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	24	1600	0.015 *	0	24	1600	0.015 *	0	24	1600	0.015 *	1	0	25	1600	0.016 *	0	25	1600	0.016 *	0	25	1600	0.016 *
NB Thru	1338	4800	0.283	-2	1336	4800	0.283	0	1336	4800	0.283	54	193	1585	4800	0.335	-2	1583	4800	0.334	0	1583	4800	0.334
NB Right	21	0	0.000	0	21	0	0.000	0	21	0	0.000	1	0	22	0	0.000	0	22	0	0.000	0	22	0	0.000
SB Left	20	1600	0.013	-6	14	1600	0.009	0	14	1600	0.009	1	0	21	1600	0.013	-6	15	1600	0.009	0	15	1600	0.009
SB Thru	2398	4800	0.502 *	45	2443	4800	0.512 *	0	2443	4800	0.512 *	97	242	2737	4800	0.573 *	45	2782	4800	0.583 *	0	2782	4800	0.583 *
SB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
EB Left	13	0	0.008	0	13	0	0.008	0	13	0	0.008	1	0	14	0	0.009	0	14	0	0.009	0	14	0	0.009
EB Thru	14	1600	0.026 *	0	14	1600	0.026 *	0	14	1600	0.026 *	1	0	15	1600	0.028 *	0	15	1600	0.028 *	0	15	1600	0.028 *
EB Right	15	0	0.000	0	15	0	0.000	0	15	0	0.000	1	0	16	0	0.000	0	16	0	0.000	0	16	0	0.000
WB Left	39	1600	0.024 *	0	39	1600	0.024 *	0	39	1600	0.024 *	2	0	41	1600	0.026 *	0	41	1600	0.026 *	0	41	1600	0.026 *
WB Thru	17	1600	0.027	0	17	1600	0.027	0	17	1600	0.027	1	0	18	1600	0.028	0	18	1600	0.028	0	18	1600	0.028
WB Right	26	0	0.000	0	26	0	0.000	0	26	0	0.000	1	0	27	0	0.000	0	27	0	0.000	0	27	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.668				0.677				0.677					0.743				0.752				0.752
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	3	53	29	3088	927	22
Future Vol, veh/h	3	53	29	3088	927	22
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	55	30	3217	966	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2324	494	989	0	-	0
Stage 1	977	-	-	-	-	-
Stage 2	1347	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	62	446	396	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	57	446	396	-	-	-
Mov Cap-2 Maneuver	57	-	-	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	171	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.4	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	396	-	327	-	-
HCM Lane V/C Ratio	0.076	-	0.178	-	-
HCM Control Delay (s)	14.8	-	18.4	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	43	5	1389	2484	10
Future Vol, veh/h	4	43	5	1389	2484	10
Conflicting Peds, #/hr	0	0	0	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	44	5	1432	2561	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3149	1286	2571	0	-	0
Stage 1	2566	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	22	133	64	-	-	-
Stage 1	24	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	20	133	64	-	-	-
Mov Cap-2 Maneuver	20	-	-	-	-	-
Stage 1	24	-	-	-	-	-
Stage 2	438	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	84.2	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	64	-	90	-	-
HCM Lane V/C Ratio	0.081	-	0.538	-	-
HCM Control Delay (s)	66.1	-	84.2	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	0.3	-	2.4	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	3	55	31	3366	1088	24
Future Vol, veh/h	3	55	31	3366	1088	24
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	57	32	3506	1133	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2613	579	1158	0	-	0
Stage 1	1146	-	-	-	-	-
Stage 2	1467	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	43	393	328	-	-	-
Stage 1	197	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	39	393	328	-	-	-
Mov Cap-2 Maneuver	39	-	-	-	-	-
Stage 1	197	-	-	-	-	-
Stage 2	143	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.4	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	328	-	267	-	-
HCM Lane V/C Ratio	0.098	-	0.226	-	-
HCM Control Delay (s)	17.2	-	22.4	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.8	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	46	5	1638	2825	10
Future Vol, veh/h	4	46	5	1638	2825	10
Conflicting Peds, #/hr	0	0	0	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	47	5	1689	2912	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3604	1461	2923	0	-	0
Stage 1	2918	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	12	101	42	-	-	-
Stage 1	14	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	11	101	42	-	-	-
Mov Cap-2 Maneuver	11	-	-	-	-	-
Stage 1	14	-	-	-	-	-
Stage 2	370	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	183	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	42	-	61	-	-
HCM Lane V/C Ratio	0.123	-	0.845	-	-
HCM Control Delay (s)	102.4	-	183	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	0.4	-	3.8	-	-

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 30th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU14

Pacific Coast Highway @ 30th Street
Peak hr: AM
Annual Growth: 1.00%

305 S. Sepulveda Boulevard Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	47	1600	0.029	-18	29	1600	0.018	0	29	1600	0.018	2	0	49	1600	0.031	-18	31	1600	0.019	0	31	1600	0.019
NB Thru	3047	4800	0.635 *	41	3088	4800	0.643 *	0	3088	4800	0.643 *	124	154	3325	4800	0.693 *	41	3366	4800	0.701 *	0	3366	4800	0.701 *
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
SB Thru	929	4800	0.201	-2	927	4800	0.198	0	927	4800	0.198	38	123	1090	4800	0.235	-2	1088	4800	0.232	0	1088	4800	0.232
SB Right	37	0	0.000	-15	22	0	0.000	0	22	0	0.000	2	0	39	0	0.000	-15	24	0	0.000	0	24	0	0.000
EB Left	3	0	0.002	0	3	0	0.002	0	3	0	0.002	0	0	3	0	0.002	0	3	0	0.002	0	3	0	0.002
EB Thru	0	1600	0.035 *	0	0	1600	0.035 *	0	0	1600	0.035 *	0	0	0	1600	0.036 *	0	0	1600	0.036 *	0	0	1600	0.036 *
EB Right	53	0	0.000	0	53	0	0.000	0	53	0	0.000	2	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.770				0.778				0.778					0.829				0.838				0.838
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turn 3-7 PM

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 30th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU14

Pacific Coast Highway @ 30th Street
Peak hr: PM
Annual Growth: 1.00%

305 S. Sepulveda Boulevard Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *	0	0	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *
NB Thru	1389	4800	0.289	0	1389	4800	0.289	0	1389	4800	0.289	56	193	1638	4800	0.341	0	1638	4800	0.341	0	1638	4800	0.341
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Thru	2438	4800	0.510 *	46	2484	4800	0.520 *	0	2484	4800	0.520 *	99	242	2779	4800	0.581 *	46	2825	4800	0.591 *	0	2825	4800	0.591 *
SB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
EB Left	4	0	0.003	0	4	0	0.003	0	4	0	0.003	0	0	4	0	0.003	0	4	0	0.003	0	4	0	0.003
EB Thru	0	1600	0.041 *	0	0	1600	0.029 *	0	0	1600	0.029 *	0	0	0	1600	0.043 *	0	0	1600	0.031 *	0	0	1600	0.031 *
EB Right	62	0	0.000	-19	43	0	0.000	0	43	0	0.000	3	0	65	0	0.000	-19	46	0	0.000	0	46	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.654				0.652				0.652					0.727				0.725				0.725
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	10.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	67	3061	18	49	934
Future Vol, veh/h	0	67	3061	18	49	934
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	70	3189	19	51	973

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3689	1604	0	0	3207	0
Stage 1	3198	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	10	81	-	-	~ 29	-
Stage 1	9	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	10	81	-	-	~ 29	-
Mov Cap-2 Maneuver	10	-	-	-	-	-
Stage 1	9	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	153.2	0	32.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	81	~ 29	-
HCM Lane V/C Ratio	-	-	0.862	1.76	-
HCM Control Delay (s)	-	-	153.2	$ 657.3	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	4.5	6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	52	1354	24	3	2538
Future Vol, veh/h	0	52	1354	24	3	2538
Conflicting Peds, #/hr	0	0	0	44	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	1382	24	3	2590

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2436	703	0	0	1406	0
Stage 1	1394	-	-	-	-	-
Stage 2	1042	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	54	326	-	-	248	-
Stage 1	138	-	-	-	-	-
Stage 2	271	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	51	326	-	-	248	-
Mov Cap-2 Maneuver	51	-	-	-	-	-
Stage 1	138	-	-	-	-	-
Stage 2	258	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	326	248	-
HCM Lane V/C Ratio	-	-	0.163	0.012	-
HCM Control Delay (s)	-	-	18.2	19.7	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	16.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	70	3338	19	51	1095
Future Vol, veh/h	0	70	3338	19	51	1095
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	3477	20	53	1141

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	4050	1748	0	0	3497	0
Stage 1	3487	-	-	-	-	-
Stage 2	563	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	6	~ 64	-	-	~ 21	-
Stage 1	6	-	-	-	-	-
Stage 2	487	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	6	~ 64	-	-	~ 21	-
Mov Cap-2 Maneuver	6	-	-	-	-	-
Stage 1	6	-	-	-	-	-
Stage 2	485	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	265.3	0	48.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	64	~ 21	-
HCM Lane V/C Ratio	-	-	1.139	2.53	-
HCM Control Delay (s)	-	-	265.3	$ 1080.6	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	5.8	6.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	54	1602	25	3	2882
Future Vol, veh/h	0	54	1602	25	3	2882
Conflicting Peds, #/hr	0	0	0	44	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	55	1635	26	3	2941

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2829	830	0	0	1660	0
Stage 1	1647	-	-	-	-	-
Stage 2	1182	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	33	269	-	-	186	-
Stage 1	96	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	31	269	-	-	186	-
Mov Cap-2 Maneuver	31	-	-	-	-	-
Stage 1	96	-	-	-	-	-
Stage 2	216	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	269	186	-
HCM Lane V/C Ratio	-	-	0.205	0.016	-
HCM Control Delay (s)	-	-	21.8	24.7	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Keats Street

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Keats Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU15

Peak hr: AM
Annual Growth: 1.00%

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

305 S. Sepulveda Boulevard Only

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Thru	3038	4800	0.637 *	23	3061	4800	0.641 *	0	3061	4800	0.641 *	123	154	3315	4800	0.695 *	23	3338	4800	0.699 *	0	3338	4800	0.699 *
NB Right	18	0	0.000	0	18	0	0.000	0	18	0	0.000	1	0	19	0	0.000	0	19	0	0.000	0	19	0	0.000
SB Left [3]	49	1600	0.031 *	0	49	1600	0.031 *	0	49	1600	0.031 *	2	0	51	1600	0.032 *	0	51	1600	0.032 *	0	51	1600	0.032 *
SB Thru	936	4800	0.195	-2	934	4800	0.195	0	934	4800	0.195	38	123	1097	4800	0.229	-2	1095	4800	0.228	0	1095	4800	0.228
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	1600	0.000	0	0	1600	0.000
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	1600	0.042 *	0	0	1600	0.042 *	0	0	1600	0.042 *	0	0	0	1600	0.044 *	0	0	1600	0.044 *	0	0	1600	0.044 *
WB Right	67	0	0.000	0	67	0	0.000	0	67	0	0.000	3	0	70	0	0.000	0	70	0	0.000	0	70	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.809				0.814				0.814					0.870				0.875				0.875
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Keats Street

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Keats Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU15

Peak hr: PM
Annual Growth: 1.00%

305 S. Sepulveda Boulevard Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	1354	4800	0.287	0	1354	4800	0.287	0	1354	4800	0.287	55	193	1602	4800	0.339	0	1602	4800	0.339	0	1602	4800	0.339
NB Right	24	0	0.000	0	24	0	0.000	0	24	0	0.000	1	0	25	0	0.000	0	25	0	0.000	0	25	0	0.000
SB Left [3]	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002	0	0	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002
SB Thru	2511	4800	0.523 *	27	2538	4800	0.529 *	0	2538	4800	0.529 *	102	242	2855	4800	0.595 *	27	2882	4800	0.600 *	0	2882	4800	0.600 *
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	1600	0.000	0	0	1600	0.000
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	1600	0.033 *	0	0	1600	0.033 *	0	0	1600	0.033 *	0	0	0	1600	0.034 *	0	0	1600	0.034 *	0	0	1600	0.034 *
WB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	2	0	54	0	0.000	0	54	0	0.000	0	54	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.656				0.661				0.661					0.729				0.734				0.734
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	39	2966	6	34	955
Future Vol, veh/h	0	39	2966	6	34	955
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	3058	6	35	985

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3525	1532	0	0	3064	0
Stage 1	3061	-	-	-	-	-
Stage 2	464	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	13	90	-	-	~ 35	-
Stage 1	11	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	13	90	-	-	~ 35	-
Mov Cap-2 Maneuver	13	-	-	-	-	-
Stage 1	11	-	-	-	-	-
Stage 2	546	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	73.9	0	11.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	90	~ 35	-
HCM Lane V/C Ratio	-	-	0.447	1.001	-
HCM Control Delay (s)	-	-	73.9	$ 323.5	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	1.9	3.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	7	50	1297	17	58	2467
Future Vol, veh/h	7	50	1297	17	58	2467
Conflicting Peds, #/hr	0	0	0	14	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	51	1323	17	59	2517

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2457	670	0	0	1341	0
Stage 1	1332	-	-	-	-	-
Stage 2	1125	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	53	343	-	-	267	-
Stage 1	151	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	41	343	-	-	267	-
Mov Cap-2 Maneuver	41	-	-	-	-	-
Stage 1	151	-	-	-	-	-
Stage 2	188	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.3	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	180	267	-
HCM Lane V/C Ratio	-	-	0.323	0.222	-
HCM Control Delay (s)	-	-	34.3	22.3	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.3	0.8	-

Intersection	
Int Delay, s/veh	9.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	43	3237	6	39	1113
Future Vol, veh/h	5	43	3237	6	39	1113
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	44	3337	6	40	1147

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3879	1672	0	0	3343	0
Stage 1	3340	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	8	72	-	-	~ 25	-
Stage 1	7	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	8	72	-	-	~ 25	-
Mov Cap-2 Maneuver	8	-	-	-	-	-
Stage 1	7	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 395.2	0	21.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	39	~ 25	-
HCM Lane V/C Ratio	-	-	1.269	1.608	-
HCM Control Delay (s)	-	-	$ 395.2	$ 636.5	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	5	4.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	24	60	1535	18	69	2799
Future Vol, veh/h	24	60	1535	18	69	2799
Conflicting Peds, #/hr	0	0	0	14	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	61	1566	18	70	2856

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2859	792	0	0	1585	0
Stage 1	1576	-	-	-	-	-
Stage 2	1283	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	31	285	-	-	202	-
Stage 1	106	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 20	285	-	-	202	-
Mov Cap-2 Maneuver	~ 20	-	-	-	-	-
Stage 1	106	-	-	-	-	-
Stage 2	129	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 380.2	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	60	202	-
HCM Lane V/C Ratio	-	-	1.429	0.349	-
HCM Control Delay (s)	-	-	$ 380.2	32.1	-
HCM Lane LOS	-	-	F	D	-
HCM 95th %tile Q(veh)	-	-	7.5	1.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Gould Avenue-Artesia Boulevard

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Gould Avenue-Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: AM
Annual Growth: 1.00%

305 S. Sepulveda Boulevard Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	46	1600	0.029	0	46	1600	0.029	0	46	1600	0.029	2	0	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030
NB Thru	2299	4800	0.479 *	13	2312	4800	0.482 *	0	2312	4800	0.482 *	93	105	2497	4800	0.520 *	13	2510	4800	0.523 *	0	2510	4800	0.523 *
NB Right	154	1600	0.096	0	154	1600	0.096	0	154	1600	0.096	6	42	202	1600	0.126	0	202	1600	0.126	0	202	1600	0.126
SB Left	176	2880	0.061 *	1	177	2880	0.061 *	0	177	2880	0.061 *	7	29	212	2880	0.074 *	1	213	2880	0.074 *	0	213	2880	0.074 *
SB Thru	706	4800	0.156	0	706	4800	0.156	0	706	4800	0.156	29	88	823	4800	0.182	0	823	4800	0.182	0	823	4800	0.182
SB Right	45	0	0.000	0	45	0	0.000	0	45	0	0.000	2	4	51	0	0.000	0	51	0	0.000	0	51	0	0.000
EB Left	92	1600	0.058 *	0	92	1600	0.058 *	0	92	1600	0.058 *	4	9	105	1600	0.066 *	0	105	1600	0.066 *	0	105	1600	0.066 *
EB Thru	363	3200	0.135	0	363	3200	0.135	0	363	3200	0.135	15	19	397	3200	0.147	0	397	3200	0.147	0	397	3200	0.147
EB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	3	0	72	0	0.000	0	72	0	0.000	0	72	0	0.000
WB Left	282	2880	0.098	0	282	2880	0.098	0	282	2880	0.098	11	61	354	2880	0.123	0	354	2880	0.123	0	354	2880	0.123
WB Thru	506	3200	0.158	0	506	3200	0.158	0	506	3200	0.158	21	28	555	3200	0.173	0	555	3200	0.173	0	555	3200	0.173
WB Right [3]	592	1600	0.309 *	9	601	1600	0.314 *	0	601	1600	0.314 *	24	44	660	1600	0.339 *	9	669	1600	0.344 *	0	669	1600	0.344 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.006				1.015				1.015					1.098				1.107				1.107
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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N-S St: Sepulveda Boulevard-Pacific Coast Highway
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Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: PM
Annual Growth: 1.00%

305 S. Sepulveda Boulevard Only

Date: 5/23/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	0	40	1600	0.025 *	0	40	1600	0.025 *	2	0	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *
NB Thru	993	4800	0.207	0	993	4800	0.207	0	993	4800	0.207	40	140	1173	4800	0.244	0	1173	4800	0.244	0	1173	4800	0.244
NB Right	265	1600	0.166	0	265	1600	0.166	0	265	1600	0.166	11	109	385	1600	0.241	0	385	1600	0.241	0	385	1600	0.241
SB Left	481	2880	0.167	8	489	2880	0.170	0	489	2880	0.170	20	58	559	2880	0.194	8	567	2880	0.197	0	567	2880	0.197
SB Thru	1893	4800	0.408 *	11	1904	4800	0.411 *	0	1904	4800	0.411 *	77	177	2147	4800	0.465 *	11	2158	4800	0.467 *	0	2158	4800	0.467 *
SB Right	66	0	0.000	1	67	0	0.000	0	67	0	0.000	3	14	83	0	0.000	1	84	0	0.000	0	84	0	0.000
EB Left	67	1600	0.042	0	67	1600	0.042	0	67	1600	0.042	3	15	85	1600	0.053	0	85	1600	0.053	0	85	1600	0.053
EB Thru	404	3200	0.143 *	0	404	3200	0.143 *	0	404	3200	0.143 *	16	45	465	3200	0.163 *	0	465	3200	0.163 *	0	465	3200	0.163 *
EB Right	53	0	0.000	0	53	0	0.000	0	53	0	0.000	2	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
WB Left	268	2880	0.093 *	0	268	2880	0.093 *	0	268	2880	0.093 *	11	107	386	2880	0.134 *	0	386	2880	0.134 *	0	386	2880	0.134 *
WB Thru	346	3200	0.108	0	346	3200	0.108	0	346	3200	0.108	14	39	399	3200	0.125	0	399	3200	0.125	0	399	3200	0.125
WB Right [3]	274	1600	0.004	0	274	1600	0.001	0	274	1600	0.001	11	48	333	1600	0.014	0	333	1600	0.011	0	333	1600	0.011
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.769				0.771				0.771					0.887				0.890				0.890
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

APPENDIX E-4

330 S. SEPULVEDA BOULEVARD PROJECT ONLY
ICU AND LEVELS OF SERVICE EXPLANATION
HCM AND LEVELS OF SERVICE EXPLANATION
INTERSECTION LEVELS OF SERVICE DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing, The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics

Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

In the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board, 2000, level of service for unsignalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, in the absence of incidents, control, traffic, or geometric delay. Only the portion of total delay attributed to the traffic control measures, either traffic signals or stop signs, is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Level of Service criteria for unsignalized intersections are stated in terms of the average control delay per vehicle. The level of service is determined by the computed or measured control delay and is defined for each minor movement. Average control delay for any particular minor movement is a function of the service time for the approach and the degree of utilization. (Level of service is not defined for the intersection as a whole for two-way stop controlled intersections.)

Level of Service Criteria for TWSC/AWSC Intersections

Level of Service	Average Control Delay (Sec/Veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Level of Service (LOS) values are used to describe intersection operations with service levels varying from LOS A (free flow) to LOS F (jammed condition). The following descriptions summarize *HCM* criteria for each level of service:

LOS A describes operations with very low control delay, up to 10 seconds per vehicle.

LOS B describes operations with control delay greater than 10 and up to 15 seconds per vehicle.

LOS C describes operations with control delay greater than 15 and up to 25 seconds per vehicle.

LOS D describes operations with control delay greater than 25 and up to 35 seconds per vehicle.

LOS E describes operations with control delay greater than 35 and up to 50 seconds per vehicle.

LOS F describes operations with control delay in excess of 50 seconds per vehicle. For two-way stop controlled intersections, LOS F exists when there are insufficient gaps of suitable size to allow side-street demand to safely cross through a major-street traffic stream. This level of service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches.

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	3	17	0	1	16	77	2940	7	31	1017	32
Future Vol, veh/h	5	3	17	0	1	16	77	2940	7	31	1017	32
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	40
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	3	18	0	1	17	81	3095	7	33	1071	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2556	4419	556	3758	4432	1591	1106	0	0	3102	0	0
Stage 1	1155	1155	-	3261	3261	-	-	-	-	-	-	-
Stage 2	1401	3264	-	497	1171	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	28	~ 1	406	5	~ 1	82	348	-	-	33	-	-
Stage 1	155	269	-	4	22	-	-	-	-	-	-	-
Stage 2	131	22	-	478	265	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	405	-	~ 1	79	347	-	-	~ 32	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	119	269	-	3	17	-	-	-	-	-	-	-
Stage 2	72	17	-	451	265	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.5	10
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	347	-	-	-	-	~ 32	-	-
HCM Lane V/C Ratio	0.234	-	-	-	-	1.02	-	-
HCM Control Delay (s)	18.5	-	-	-	-$	349.2	-	-
HCM Lane LOS	C	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-	-	3.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	0	46	0	0	22	40	1369	3	17	2294	18
Future Vol, veh/h	5	0	46	0	0	22	40	1369	3	17	2294	18
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	1	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	47	0	0	22	41	1397	3	17	2341	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3026	3868	1182	2452	3875	727	2360	0	0	1400	0	0
Stage 1	2386	2386	-	1480	1480	-	-	-	-	-	-	-
Stage 2	640	1482	-	972	2395	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	14	3	157	33	3	314	82	-	-	250	-	-
Stage 1	20	65	-	91	188	-	-	-	-	-	-	-
Stage 2	392	187	-	245	65	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	7	1	157	13	1	307	82	-	-	244	-	-
Mov Cap-2 Maneuver	7	1	-	13	1	-	-	-	-	-	-	-
Stage 1	10	60	-	46	94	-	-	-	-	-	-	-
Stage 2	178	94	-	160	60	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	260.3	17.6	2.4	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	82	-	-	51	307	244	-	-
HCM Lane V/C Ratio	0.498	-	-	1.02	0.073	0.071	-	-
HCM Control Delay (s)	86.2	-	-	260.3	17.6	20.9	-	-
HCM Lane LOS	F	-	-	F	C	C	-	-
HCM 95th %tile Q(veh)	2.1	-	-	4.5	0.2	0.2	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	3	18	0	1	17	80	3213	7	32	1181	33
Future Vol, veh/h	5	3	18	0	1	17	80	3213	7	32	1181	33
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	40
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	3	19	0	1	18	84	3382	7	34	1243	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2852	4888	643	4122	4901	1735	1280	0	0	3389	0	0
Stage 1	1330	1330	-	3554	3554	-	-	-	-	-	-	-
Stage 2	1522	3558	-	568	1347	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	18	~ 1	357	3	~ 1	65	286	-	-	~ 23	-	-
Stage 1	117	222	-	3	15	-	-	-	-	-	-	-
Stage 2	110	15	-	433	218	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	356	-	~ 1	63	286	-	-	~ 22	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	82	222	-	2	11	-	-	-	-	-	-	-
Stage 2	49	11	-	403	218	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.6	16.6
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	286	-	-	-	-	~ 22	-	-
HCM Lane V/C Ratio	0.294	-	-	-	-	1.531	-	-
HCM Control Delay (s)	22.8	-	-	-	-	$ 644.5	-	-
HCM Lane LOS	C	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	1.2	-	-	-	-	4.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	18.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	0	48	0	0	23	42	1617	3	18	2629	19
Future Vol, veh/h	5	0	48	0	0	23	42	1617	3	18	2629	19
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	1	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	80	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	49	0	0	23	43	1650	3	18	2683	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3476	4469	1353	2848	4477	854	2703	0	0	1653	0	0
Stage 1	2730	2730	-	1737	1737	-	-	-	-	-	-	-
Stage 2	746	1739	-	1111	2740	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	7	1	120	18	1	259	54	-	-	187	-	-
Stage 1	11	43	-	60	140	-	-	-	-	-	-	-
Stage 2	338	140	-	200	42	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 2	0	120	3	0	253	54	-	-	183	-	-
Mov Cap-2 Maneuver	~ 2	0	-	3	0	-	-	-	-	-	-	-
Stage 1	~ 2	39	-	12	29	-	-	-	-	-	-	-
Stage 2	61	29	-	107	38	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 1344.4	20.7	4.7	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	54	-	-	18	253	183	-	-
HCM Lane V/C Ratio	0.794	-	-	3.005	0.093	0.1	-	-
HCM Control Delay (s)	186.4	-	-	$ 1344.4	20.7	26.9	-	-
HCM Lane LOS	F	-	-	F	C	D	-	-
HCM 95th %tile Q(veh)	3.4	-	-	7.3	0.3	0.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Duncan Avenue-Duncan Drive

N-S St: Sepulveda Boulevard
E-W St: Duncan Avenue-Duncan Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU12

Peak hr: AM
Annual Growth: 1.00%

330 S. Sepulveda Boulevard Only

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048	3	0	80	1600	0.050	0	80	1600	0.050	0	80	1600	0.050
NB Thru	2938	4800	0.614 *	2	2940	4800	0.614 *	0	2940	4800	0.614 *	119	154	3211	4800	0.671 *	2	3213	4800	0.671 *	0	3213	4800	0.671 *
NB Right	9	0	0.000	-2	7	0	0.000	0	7	0	0.000	0	0	9	0	0.000	-2	7	0	0.000	0	7	0	0.000
SB Left	34	1600	0.021 *	-3	31	1600	0.019 *	0	31	1600	0.019 *	1	0	35	1600	0.022 *	-3	32	1600	0.020 *	0	32	1600	0.020 *
SB Thru	1003	4800	0.216	14	1017	4800	0.219	0	1017	4800	0.219	41	123	1167	4800	0.250	14	1181	4800	0.253	0	1181	4800	0.253
SB Right	32	0	0.000	0	32	0	0.000	0	32	0	0.000	1	0	33	0	0.000	0	33	0	0.000	0	33	0	0.000
EB Left	5	0	0.003	0	5	0	0.003	0	5	0	0.003	0	0	5	0	0.003	0	5	0	0.003	0	5	0	0.003
EB Thru	3	1600	0.016	0	3	1600	0.016 *	0	3	1600	0.016 *	0	0	3	1600	0.016	0	3	1600	0.016 *	0	3	1600	0.016 *
EB Right	17	0	0.000	0	17	0	0.000	0	17	0	0.000	1	0	18	0	0.000	0	18	0	0.000	0	18	0	0.000
WB Left	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	1	1600	0.013	0	1	1600	0.011	0	1	1600	0.011	0	0	1	1600	0.013	0	1	1600	0.011	0	1	1600	0.011
WB Right	19	0	0.000	-3	16	0	0.000	0	16	0	0.000	1	0	20	0	0.000	-3	17	0	0.000	0	17	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.751				0.749				0.749					0.809				0.807				0.807
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard @ Duncan Avenue-Duncan Drive

N-S St: Sepulveda Boulevard
E-W St: Duncan Avenue-Duncan Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU12

Peak hr: PM
Annual Growth: 1.00%

330 S. Sepulveda Boulevard Only

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	0	40	1600	0.025 *	0	40	1600	0.025 *	2	0	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *
NB Thru	1356	4800	0.284	13	1369	4800	0.286	0	1369	4800	0.286	55	193	1604	4800	0.336	13	1617	4800	0.338	0	1617	4800	0.338
NB Right	8	0	0.000	-5	3	0	0.000	0	3	0	0.000	0	0	8	0	0.000	-5	3	0	0.000	0	3	0	0.000
SB Left	25	1600	0.016	-8	17	1600	0.011	0	17	1600	0.011	1	0	26	1600	0.016	-8	18	1600	0.011	0	18	1600	0.011
SB Thru	2292	4800	0.481 *	2	2294	4800	0.482 *	0	2294	4800	0.482 *	93	242	2627	4800	0.551 *	2	2629	4800	0.552 *	0	2629	4800	0.552 *
SB Right	18	0	0.000	0	18	0	0.000	0	18	0	0.000	1	0	19	0	0.000	0	19	0	0.000	0	19	0	0.000
EB Left	5	0	0.003	0	5	0	0.003	0	5	0	0.003	0	0	5	0	0.003	0	5	0	0.003	0	5	0	0.003
EB Thru	1	1600	0.033 *	-1	0	1600	0.032 *	0	0	1600	0.032 *	0	0	1	1600	0.034 *	-1	0	1600	0.033 *	0	0	1600	0.033 *
EB Right	46	0	0.000	0	46	0	0.000	0	46	0	0.000	2	0	48	0	0.000	0	48	0	0.000	0	48	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	1600	0.019	0	0	1600	0.014	0	0	1600	0.014	0	0	0	1600	0.019	0	0	1600	0.014	0	0	1600	0.014
WB Right	30	0	0.000	-8	22	0	0.000	0	22	0	0.000	1	0	31	0	0.000	-8	23	0	0.000	0	23	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.639				0.639				0.639					0.711				0.711				0.711
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Longfellow Avenue-Longfellow Drive

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Longfellow Avenue-Longfellow Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU13

Peak hr: AM
Annual Growth: 1.00%

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

330 S. Sepulveda Boulevard Only

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	7	1600	0.004	0	7	1600	0.004	0	7	1600	0.004	0	0	7	1600	0.004	0	7	1600	0.004	0	7	1600	0.004
NB Thru	3038	4800	0.637 *	3	3041	4800	0.640 *	0	3041	4800	0.640 *	123	154	3315	4800	0.695 *	3	3318	4800	0.698 *	0	3318	4800	0.698 *
NB Right	21	0	0.000	11	32	0	0.000	0	32	0	0.000	1	0	22	0	0.000	11	33	0	0.000	0	33	0	0.000
SB Left	47	1600	0.029 *	14	61	1600	0.038 *	0	61	1600	0.038 *	2	0	49	1600	0.031 *	14	63	1600	0.039 *	0	63	1600	0.039 *
SB Thru	963	4800	0.203	0	963	4800	0.203	0	963	4800	0.203	39	123	1125	4800	0.237	0	1125	4800	0.237	0	1125	4800	0.237
SB Right	11	0	0.000	0	11	0	0.000	0	11	0	0.000	0	0	11	0	0.000	0	11	0	0.000	0	11	0	0.000
EB Left	11	0	0.007 *	0	11	0	0.007 *	0	11	0	0.007 *	0	0	11	0	0.007 *	0	11	0	0.007 *	0	11	0	0.007 *
EB Thru	25	1600	0.029	2	27	1600	0.030	0	27	1600	0.030	1	0	26	1600	0.029	2	28	1600	0.031	0	28	1600	0.031
EB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
WB Left	15	1600	0.009	-2	13	1600	0.008	0	13	1600	0.008	1	0	16	1600	0.010	-2	14	1600	0.009	0	14	1600	0.009
WB Thru	18	1600	0.041 *	0	18	1600	0.041 *	0	18	1600	0.041 *	1	0	19	1600	0.043 *	0	19	1600	0.043 *	0	19	1600	0.043 *
WB Right	47	0	0.000	0	47	0	0.000	0	47	0	0.000	2	0	49	0	0.000	0	49	0	0.000	0	49	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.814				0.826				0.826					0.875				0.887				0.887
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
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2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Longfellow Avenue-Longfellow Drive

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Longfellow Avenue-Longfellow Drive
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU13

Peak hr: PM
Annual Growth: 1.00%

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

330 S. Sepulveda Boulevard Only

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	24	1600	0.015 *	0	24	1600	0.015 *	0	24	1600	0.015 *	1	0	25	1600	0.016 *	0	25	1600	0.016 *	0	25	1600	0.016 *
NB Thru	1338	4800	0.283	-4	1334	4800	0.282	0	1334	4800	0.282	54	193	1585	4800	0.335	-4	1581	4800	0.333	0	1581	4800	0.333
NB Right	21	0	0.000	-3	18	0	0.000	0	18	0	0.000	1	0	22	0	0.000	-3	19	0	0.000	0	19	0	0.000
SB Left	20	1600	0.013	2	22	1600	0.014	0	22	1600	0.014	1	0	21	1600	0.013	2	23	1600	0.014	0	23	1600	0.014
SB Thru	2398	4800	0.502 *	0	2398	4800	0.502 *	0	2398	4800	0.502 *	97	242	2737	4800	0.573 *	0	2737	4800	0.573 *	0	2737	4800	0.573 *
SB Right	13	0	0.000	0	13	0	0.000	0	13	0	0.000	1	0	14	0	0.000	0	14	0	0.000	0	14	0	0.000
EB Left	13	0	0.008	0	13	0	0.008	0	13	0	0.008	1	0	14	0	0.009	0	14	0	0.009	0	14	0	0.009
EB Thru	14	1600	0.026 *	0	14	1600	0.026 *	0	14	1600	0.026 *	1	0	15	1600	0.028 *	0	15	1600	0.028 *	0	15	1600	0.028 *
EB Right	15	0	0.000	0	15	0	0.000	0	15	0	0.000	1	0	16	0	0.000	0	16	0	0.000	0	16	0	0.000
WB Left	39	1600	0.024 *	7	46	1600	0.029 *	0	46	1600	0.029 *	2	0	41	1600	0.026 *	7	48	1600	0.030 *	0	48	1600	0.030 *
WB Thru	17	1600	0.027	0	17	1600	0.028	0	17	1600	0.028	1	0	18	1600	0.028	0	18	1600	0.029	0	18	1600	0.029
WB Right	26	0	0.000	1	27	0	0.000	0	27	0	0.000	1	0	27	0	0.000	1	28	0	0.000	0	28	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.668				0.672				0.672					0.743				0.747				0.747
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	3	53	47	3061	928	37
Future Vol, veh/h	3	53	47	3061	928	37
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	55	49	3189	967	39

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2359	503	1005	0	-	0
Stage 1	986	-	-	-	-	-
Stage 2	1373	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	60	440	389	-	-	-
Stage 1	247	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	52	440	389	-	-	-
Mov Cap-2 Maneuver	52	-	-	-	-	-
Stage 1	247	-	-	-	-	-
Stage 2	156	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.1	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	389	-	314	-	-
HCM Lane V/C Ratio	0.126	-	0.186	-	-
HCM Control Delay (s)	15.6	-	19.1	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	0.7	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	62	5	1385	2447	10
Future Vol, veh/h	4	62	5	1385	2447	10
Conflicting Peds, #/hr	0	0	0	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	64	5	1428	2523	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3109	1266	2533	0	-	0
Stage 1	2528	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	23	137	67	-	-	-
Stage 1	26	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	21	137	67	-	-	-
Mov Cap-2 Maneuver	21	-	-	-	-	-
Stage 1	26	-	-	-	-	-
Stage 2	440	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	91	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	67	-	103	-	-
HCM Lane V/C Ratio	0.077	-	0.661	-	-
HCM Control Delay (s)	63.2	-	91	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	0.2	-	3.3	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	3	55	49	3339	1089	39
Future Vol, veh/h	3	55	49	3339	1089	39
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	57	51	3478	1134	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2648	588	1175	0	-	0
Stage 1	1155	-	-	-	-	-
Stage 2	1493	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	41	387	322	-	-	-
Stage 1	194	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	35	387	322	-	-	-
Mov Cap-2 Maneuver	35	-	-	-	-	-
Stage 1	194	-	-	-	-	-
Stage 2	129	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.4	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	322	-	255	-	-
HCM Lane V/C Ratio	0.159	-	0.237	-	-
HCM Control Delay (s)	18.3	-	23.4	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.6	-	0.9	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	65	5	1634	2788	10
Future Vol, veh/h	4	65	5	1634	2788	10
Conflicting Peds, #/hr	0	0	0	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	67	5	1685	2874	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3563	1442	2885	0	-	0
Stage 1	2879	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	12	104	44	-	-	-
Stage 1	15	-	-	-	-	-
Stage 2	421	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	11	104	44	-	-	-
Mov Cap-2 Maneuver	11	-	-	-	-	-
Stage 1	15	-	-	-	-	-
Stage 2	373	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	213.5	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	44	-	70	-	-
HCM Lane V/C Ratio	0.117	-	1.016	-	-
HCM Control Delay (s)	97.4	-	213.5	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	0.4	-	5.2	-	-

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INTERSECTION CAPACITY UTILIZATION

N-S St: Pacific Coast Highway
E-W St: 30th Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU14

Pacific Coast Highway @ 30th Street
Peak hr: AM
Annual Growth: 1.00%

330 S. Sepulveda Boulevard Only

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	47	1600	0.029	0	47	1600	0.029	0	47	1600	0.029	2	0	49	1600	0.031	0	49	1600	0.031	0	49	1600	0.031
NB Thru	3047	4800	0.635 *	14	3061	4800	0.638 *	0	3061	4800	0.638 *	124	154	3325	4800	0.693 *	14	3339	4800	0.696 *	0	3339	4800	0.696 *
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
SB Thru	929	4800	0.201	-1	928	4800	0.201	0	928	4800	0.201	38	123	1090	4800	0.235	-1	1089	4800	0.235	0	1089	4800	0.235
SB Right	37	0	0.000	0	37	0	0.000	0	37	0	0.000	2	0	39	0	0.000	0	39	0	0.000	0	39	0	0.000
EB Left	3	0	0.002	0	3	0	0.002	0	3	0	0.002	0	0	3	0	0.002	0	3	0	0.002	0	3	0	0.002
EB Thru	0	1600	0.035 *	0	0	1600	0.035 *	0	0	1600	0.035 *	0	0	0	1600	0.036 *	0	0	1600	0.036 *	0	0	1600	0.036 *
EB Right	53	0	0.000	0	53	0	0.000	0	53	0	0.000	2	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.770				0.773				0.773					0.829				0.832				0.832
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turn 3-7 PM

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Pacific Coast Highway @ 30th Street
Peak hr: PM
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	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left [3]	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *	0	0	5	1600	0.003 *	0	5	1600	0.003 *	0	5	1600	0.003 *
NB Thru	1389	4800	0.289	-4	1385	4800	0.289	0	1385	4800	0.289	56	193	1638	4800	0.341	-4	1634	4800	0.340	0	1634	4800	0.340
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
SB Thru	2438	4800	0.510 *	9	2447	4800	0.512 *	0	2447	4800	0.512 *	99	242	2779	4800	0.581 *	9	2788	4800	0.583 *	0	2788	4800	0.583 *
SB Right	10	0	0.000	0	10	0	0.000	0	10	0	0.000	0	0	10	0	0.000	0	10	0	0.000	0	10	0	0.000
EB Left	4	0	0.003	0	4	0	0.003	0	4	0	0.003	0	0	4	0	0.003	0	4	0	0.003	0	4	0	0.003
EB Thru	0	1600	0.041 *	0	0	1600	0.041 *	0	0	1600	0.041 *	0	0	0	1600	0.043 *	0	0	1600	0.043 *	0	0	1600	0.043 *
EB Right	62	0	0.000	0	62	0	0.000	0	62	0	0.000	3	0	65	0	0.000	0	65	0	0.000	0	65	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.654				0.656				0.656					0.727				0.729				0.729
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No northbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	9.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	67	3052	18	49	932
Future Vol, veh/h	0	67	3052	18	49	932
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	70	3179	19	51	971

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3679	1599	0	0	3198	0
Stage 1	3189	-	-	-	-	-
Stage 2	490	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	11	81	-	-	~ 30	-
Stage 1	9	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	11	81	-	-	~ 30	-
Mov Cap-2 Maneuver	11	-	-	-	-	-
Stage 1	9	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	153.2	0	31.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	81	~ 30	-
HCM Lane V/C Ratio	-	-	0.862	1.701	-
HCM Control Delay (s)	-	-	153.2	$ 624.5	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	4.5	5.9	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	52	1350	24	3	2527
Future Vol, veh/h	0	52	1350	24	3	2527
Conflicting Peds, #/hr	0	0	0	44	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	1378	24	3	2579

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2428	701	0	0	1402	0
Stage 1	1390	-	-	-	-	-
Stage 2	1038	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	55	327	-	-	249	-
Stage 1	139	-	-	-	-	-
Stage 2	272	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	52	327	-	-	249	-
Mov Cap-2 Maneuver	52	-	-	-	-	-
Stage 1	139	-	-	-	-	-
Stage 2	259	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	327	249	-
HCM Lane V/C Ratio	-	-	0.162	0.012	-
HCM Control Delay (s)	-	-	18.1	19.6	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	16

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	70	3329	19	51	1093
Future Vol, veh/h	0	70	3329	19	51	1093
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	3468	20	53	1139

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	4040	1744	0	0	3488	0
Stage 1	3478	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	7	~ 65	-	-	~ 21	-
Stage 1	6	-	-	-	-	-
Stage 2	487	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	7	~ 65	-	-	~ 21	-
Mov Cap-2 Maneuver	7	-	-	-	-	-
Stage 1	6	-	-	-	-	-
Stage 2	485	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	257.2	0	48.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	65	~ 21	-
HCM Lane V/C Ratio	-	-	1.122	2.53	-
HCM Control Delay (s)	-	-	257.2	$ 1080.6	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	5.7	6.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	54	1598	25	3	2871
Future Vol, veh/h	0	54	1598	25	3	2871
Conflicting Peds, #/hr	0	0	0	44	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	55	1631	26	3	2930

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2821	828	0	0	1656	0
Stage 1	1643	-	-	-	-	-
Stage 2	1178	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	33	270	-	-	186	-
Stage 1	96	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	31	270	-	-	186	-
Mov Cap-2 Maneuver	31	-	-	-	-	-
Stage 1	96	-	-	-	-	-
Stage 2	217	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	270	186	-
HCM Lane V/C Ratio	-	-	0.204	0.016	-
HCM Control Delay (s)	-	-	21.7	24.7	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

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Annual Growth: 1.00%

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

330 S. Sepulveda Boulevard Only

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
NB Thru	3038	4800	0.637 *	14	3052	4800	0.640 *	0	3052	4800	0.640 *	123	154	3315	4800	0.695 *	14	3329	4800	0.698 *	0	3329	4800	0.698 *
NB Right	18	0	0.000	0	18	0	0.000	0	18	0	0.000	1	0	19	0	0.000	0	19	0	0.000	0	19	0	0.000
SB Left [3]	49	1600	0.031 *	0	49	1600	0.031 *	0	49	1600	0.031 *	2	0	51	1600	0.032 *	0	51	1600	0.032 *	0	51	1600	0.032 *
SB Thru	936	4800	0.195	-4	932	4800	0.194	0	932	4800	0.194	38	123	1097	4800	0.229	-4	1093	4800	0.228	0	1093	4800	0.228
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	1600	0.000	0	0	1600	0.000
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	1600	0.042 *	0	0	1600	0.042 *	0	0	1600	0.042 *	0	0	0	1600	0.044 *	0	0	1600	0.044 *	0	0	1600	0.044 *
WB Right	67	0	0.000	0	67	0	0.000	0	67	0	0.000	3	0	70	0	0.000	0	70	0	0.000	0	70	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.809				0.812				0.812					0.870				0.873				0.873
LOS			D				D				D					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Keats Street

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Keats Street
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU15

Peak hr: PM
Annual Growth: 1.00%

330 S. Sepulveda Boulevard Only

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	1354	4800	0.287	-4	1350	4800	0.286	0	1350	4800	0.286	55	193	1602	4800	0.339	-4	1598	4800	0.338	0	1598	4800	0.338
NB Right	24	0	0.000	0	24	0	0.000	0	24	0	0.000	1	0	25	0	0.000	0	25	0	0.000	0	25	0	0.000
SB Left [3]	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002	0	0	3	1600	0.002	0	3	1600	0.002	0	3	1600	0.002
SB Thru	2511	4800	0.523 *	16	2527	4800	0.526 *	0	2527	4800	0.526 *	102	242	2855	4800	0.595 *	16	2871	4800	0.598 *	0	2871	4800	0.598 *
SB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
EB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
EB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	1600	0.000	0	0	1600	0.000
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
WB Thru	0	1600	0.033 *	0	0	1600	0.033 *	0	0	1600	0.033 *	0	0	0	1600	0.034 *	0	0	1600	0.034 *	0	0	1600	0.034 *
WB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	2	0	54	0	0.000	0	54	0	0.000	0	54	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.656				0.659				0.659					0.729				0.732				0.732
LOS			B				B				B					C				C				C

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 No southbound left-turn 3-7 PM

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	39	2957	6	34	953
Future Vol, veh/h	0	39	2957	6	34	953
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	3048	6	35	982

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3515	1527	0	0	3055	0
Stage 1	3052	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	13	91	-	-	~ 35	-
Stage 1	11	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	13	91	-	-	~ 35	-
Mov Cap-2 Maneuver	13	-	-	-	-	-
Stage 1	11	-	-	-	-	-
Stage 2	547	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	72.7	0	11.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	91	~ 35	-
HCM Lane V/C Ratio	-	-	0.442	1.001	-
HCM Control Delay (s)	-	-	72.7	$ 323.5	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	1.8	3.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	7	50	1293	17	58	2456
Future Vol, veh/h	7	50	1293	17	58	2456
Conflicting Peds, #/hr	0	0	0	14	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	51	1319	17	59	2506

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2449	668	0	0	1337	0
Stage 1	1328	-	-	-	-	-
Stage 2	1121	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	53	344	-	-	268	-
Stage 1	152	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	41	344	-	-	268	-
Mov Cap-2 Maneuver	41	-	-	-	-	-
Stage 1	152	-	-	-	-	-
Stage 2	190	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.3	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	180	268	-
HCM Lane V/C Ratio	-	-	0.323	0.221	-
HCM Control Delay (s)	-	-	34.3	22.2	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.3	0.8	-

Intersection	
Int Delay, s/veh	9.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	43	3228	6	39	1111
Future Vol, veh/h	5	43	3228	6	39	1111
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	44	3328	6	40	1145

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3870	1667	0	0	3334	0
Stage 1	3331	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	8	73	-	-	~ 25	-
Stage 1	7	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	8	73	-	-	~ 25	-
Mov Cap-2 Maneuver	8	-	-	-	-	-
Stage 1	7	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 378.5	0	21.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	40	~ 25	-
HCM Lane V/C Ratio	-	-	1.237	1.608	-
HCM Control Delay (s)	-	-	$ 378.5	$ 636.5	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	4.9	4.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	24	60	1531	18	69	2788
Future Vol, veh/h	24	60	1531	18	69	2788
Conflicting Peds, #/hr	0	0	0	14	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	61	1562	18	70	2845

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2850	790	0	0	1581	0
Stage 1	1571	-	-	-	-	-
Stage 2	1279	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	32	286	-	-	203	-
Stage 1	107	-	-	-	-	-
Stage 2	201	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 21	286	-	-	203	-
Mov Cap-2 Maneuver	~ 21	-	-	-	-	-
Stage 1	107	-	-	-	-	-
Stage 2	130	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 357.8	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	62	203	-
HCM Lane V/C Ratio	-	-	1.382	0.347	-
HCM Control Delay (s)	-	-	$ 357.8	31.9	-
HCM Lane LOS	-	-	F	D	-
HCM 95th %tile Q(veh)	-	-	7.3	1.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Gould Avenue-Artesia Boulevard

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Gould Avenue-Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: AM
Annual Growth: 1.00%

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

330 S. Sepulveda Boulevard Only

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	46	1600	0.029	0	46	1600	0.029	0	46	1600	0.029	2	0	48	1600	0.030	0	48	1600	0.030	0	48	1600	0.030
NB Thru	2299	4800	0.479 *	8	2307	4800	0.481 *	0	2307	4800	0.481 *	93	105	2497	4800	0.520 *	8	2505	4800	0.522 *	0	2505	4800	0.522 *
NB Right	154	1600	0.096	0	154	1600	0.096	0	154	1600	0.096	6	42	202	1600	0.126	0	202	1600	0.126	0	202	1600	0.126
SB Left	176	2880	0.061 *	0	176	2880	0.061 *	0	176	2880	0.061 *	7	29	212	2880	0.074 *	0	212	2880	0.074 *	0	212	2880	0.074 *
SB Thru	706	4800	0.156	-1	705	4800	0.156	0	705	4800	0.156	29	88	823	4800	0.182	-1	822	4800	0.182	0	822	4800	0.182
SB Right	45	0	0.000	0	45	0	0.000	0	45	0	0.000	2	4	51	0	0.000	0	51	0	0.000	0	51	0	0.000
EB Left	92	1600	0.058 *	0	92	1600	0.058 *	0	92	1600	0.058 *	4	9	105	1600	0.066 *	0	105	1600	0.066 *	0	105	1600	0.066 *
EB Thru	363	3200	0.135	0	363	3200	0.135	0	363	3200	0.135	15	19	397	3200	0.147	0	397	3200	0.147	0	397	3200	0.147
EB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	3	0	72	0	0.000	0	72	0	0.000	0	72	0	0.000
WB Left	282	2880	0.098	0	282	2880	0.098	0	282	2880	0.098	11	61	354	2880	0.123	0	354	2880	0.123	0	354	2880	0.123
WB Thru	506	3200	0.158	0	506	3200	0.158	0	506	3200	0.158	21	28	555	3200	0.173	0	555	3200	0.173	0	555	3200	0.173
WB Right [3]	592	1600	0.309 *	6	598	1600	0.313 *	0	598	1600	0.313 *	24	44	660	1600	0.339 *	6	666	1600	0.343 *	0	666	1600	0.343 *
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			1.006				1.012				1.012					1.098				1.104				1.104
LOS			F				F				F					F				F				F

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

Sepulveda Boulevard-Pacific Coast Highway @ Gould Avenue-Artesia Boulevard

N-S St: Sepulveda Boulevard-Pacific Coast Highway
E-W St: Gould Avenue-Artesia Boulevard
Project: Skechers Design Center and Offices Project/1-14-4065-2
File: ICU17

Peak hr: PM
Annual Growth: 1.00%

330 S. Sepulveda Boulevard Only

Date: 6/7/2016
Date of Count: 2016
Projection Year: 2020

	2016 EXISTING TRAFFIC			2016 EXISTING WITH PROJECT				2016 EXISTING W/ PROJECT + MITIGATION				2020 FUTURE PRE-PROJECT					2020 FUTURE WITH PROJECT				2020 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	40	1600	0.025 *	0	40	1600	0.025 *	0	40	1600	0.025 *	2	0	42	1600	0.026 *	0	42	1600	0.026 *	0	42	1600	0.026 *
NB Thru	993	4800	0.207	-2	991	4800	0.206	0	991	4800	0.206	40	140	1173	4800	0.244	-2	1171	4800	0.244	0	1171	4800	0.244
NB Right	265	1600	0.166	0	265	1600	0.166	0	265	1600	0.166	11	109	385	1600	0.241	0	385	1600	0.241	0	385	1600	0.241
SB Left	481	2880	0.167	4	485	2880	0.168	0	485	2880	0.168	20	58	559	2880	0.194	4	563	2880	0.195	0	563	2880	0.195
SB Thru	1893	4800	0.408 *	5	1898	4800	0.409 *	0	1898	4800	0.409 *	77	177	2147	4800	0.465 *	5	2152	4800	0.466 *	0	2152	4800	0.466 *
SB Right	66	0	0.000	0	66	0	0.000	0	66	0	0.000	3	14	83	0	0.000	0	83	0	0.000	0	83	0	0.000
EB Left	67	1600	0.042	0	67	1600	0.042	0	67	1600	0.042	3	15	85	1600	0.053	0	85	1600	0.053	0	85	1600	0.053
EB Thru	404	3200	0.143 *	0	404	3200	0.143 *	0	404	3200	0.143 *	16	45	465	3200	0.163 *	0	465	3200	0.163 *	0	465	3200	0.163 *
EB Right	53	0	0.000	0	53	0	0.000	0	53	0	0.000	2	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
WB Left	268	2880	0.093 *	0	268	2880	0.093 *	0	268	2880	0.093 *	11	107	386	2880	0.134 *	0	386	2880	0.134 *	0	386	2880	0.134 *
WB Thru	346	3200	0.108	0	346	3200	0.108	0	346	3200	0.108	14	39	399	3200	0.125	0	399	3200	0.125	0	399	3200	0.125
WB Right [3]	274	1600	0.004	-2	272	1600	0.002	0	272	1600	0.002	11	48	333	1600	0.014	-2	331	1600	0.011	0	331	1600	0.011
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *				0.100 *
ICU			0.769				0.770				0.770					0.887				0.888				0.888
LOS			C				C				C					D				D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

APPENDIX F

ACCIDENT HISTORY DATA

Appendix Table F
COLLISION DATA SUMMARY [a]

NO.	DATE OF COLLISION	DIRECTION OF TRAVEL	PRIMARY COLLISION FACTOR	TYPE OF COLLISION	NUMBER KILLED	NUMBER INJURED
Sepulveda Boulevard/Duncan Place-Ronda Drive						
1	11/11/2015	N	Driver Alcohol/Drug	Sideswipe	0	1
2	12/19/2014	S	Unsafe Speed	Rear End	0	0
3	07/24/2013	N	Unsafe Speed	Rear End	0	0
Sepulveda Boulevard/Duncan Avenue-Duncan Drive						
4	10/31/2015	S	Driver Alcohol/Drug	Overturned	0	1
5	09/01/2011	S/N	Improper Turn	Broadside	0	1
6	07/09/2011	N	Driver Alcohol/Drug	Rear End	0	0
7	09/01/2010	Unknown	Unsafe Speed	Rear-End	0	0
Sepulveda Boulevard-Pacific Coast Highway/Longfellow Avenue-Longfellow Drive						
8	09/15/2015	N	Improper Turn	Sideswipe	0	0
9	07/23/2013	S	Driver Alcohol/Drug	Hit Object	0	0
10	03/10/2011	S	Improper Turn	Overturned	0	1
Pacific Coast Highway/30th Street						
11	06/23/2015	S	Unsafe Speed	Rear End	0	1
12	02/11/2015	N	Unsafe Speed	Rear End	0	0
13	01/16/2015	S	Unsafe Speed	Rear End	0	1
14	03/09/2014	S	Unknown	Rear End	0	0
15	10/04/2013	N	Unsafe Speed	Rear End	0	0
16	08/31/2013	N	Lane Change	Sideswipe	0	0
17	05/04/2012	N	Unsafe Speed	Rear End	0	0
18	04/25/2012	S	Unsafe Speed	Rear End	0	1
19	03/15/2012	S/E	"Not Driver"	Broadside	0	0
20	01/29/2012	N	Unsafe Speed	Rear End	0	2
21	11/06/2011	N	Unsafe Speed	Rear End	0	4
22	08/23/2011	S	Unsafe Speed	Rear End	0	2
Sepulveda Boulevard-Pacific Coast Highway/Keats Street						
23	10/14/2015	W/S	ROW Auto	Broadside	0	0
24	08/24/2015	S/N	ROW Auto	Broadside	0	1
25	07/27/2015	N	Unsafe Speed	Rear End	0	1
26	04/27/2015	E/N	ROW Auto	Broadside	0	0
27	01/30/2015	S/W	Wrong Side [b]	Broadside	0	1
28	10/21/2012	N	Driver Alcohol/Drug	Rear End	0	1
29	02/06/2012	S/W	Wrong Side [b]	Sideswipe	0	1
30	12/14/2011	N	Unsafe Speed	Rear End	0	0
Sepulveda Boulevard/Tennyson Street						
31	07/31/2015	N	Improper Turn	Broadside	0	2
32	06/18/2015	N	Unsafe Speed	Rear End	0	1
33	04/22/2015	S/E	Starting/Backing	Rear End	0	0
34	06/16/2013	N	Driver Alcohol/Drug	Overturned	0	1
35	01/17/2013	N	Driver Alcohol/Drug	[Hit Object]	0	0
36	11/22/2012	N	Improper Turn	Hit Object	0	0
37	11/01/2012	S/N	ROW Auto	Broadside	0	1
38	02/07/2012	N	Improper Turn	Hit Object	0	0
39	01/18/2011	S/N	ROW Auto	Broadside	0	1

Appendix Table F (Continued)
COLLISION DATA SUMMARY [a]

NO.		DIRECTION OF TRAVEL	PRIMARY COLLISION FACTOR	TYPE OF COLLISION	NUMBER KILLED	NUMBER INJURED
Sepulveda Boulevard-Pacific Coast Highway/Gould Avenue-Artesia Boulevard						
40	12/29/2015	N	Improper Turn	Sideswipe	0	0
41	10/14/2015	N	Unsafe Speed	Rear End	0	0
42	10/08/2015	E	Driver Alcohol/Drug	Head-On	0	1
43	08/17/2015	E	Driver Alcohol/Drug	Overturned	0	0
44	08/17/2015	N	Improper Turn	Sideswipe	0	0
45	07/31/2015	E	Not Stated	Sideswipe	0	0
46	05/14/2015	S	Pedestrian Violation	Auto/Ped	0	1
47	03/20/2015	E/N/W	Improper Turn	Broadside	0	0
48	08/10/2014	E/S	Stop Sign/Signal	Broadside	0	0
49	06/17/2014	N	Driver Alcohol/Drug	Rear End	0	0
50	02/13/2014	S	Not Stated	[Blank]	0	0
51	01/01/2014	N	Unsafe Speed	Rear End	0	1
52	12/25/2013	W/S	ROW Pedestrian	Auto/Ped	0	1
53	12/20/2013	N	Not Stated	Sideswipe	0	0
54	11/15/2013	S	Driver Alcohol/Drug	Rear End	0	0
55	07/31/2013	N	Improper Turn	Sideswipe	0	0
56	05/26/2013	N	Driver Alcohol/Drug	Sideswipe	0	0
57	05/25/2013	S	Driver Alcohol/Drug	Hit Object	0	0
58	04/01/2013	S	Unsafe Speed	Rear End	0	1
59	02/16/2013	N	Improper Turn	Broadside	0	0
60	12/30/2012	N/W	Improper Turn	Broadside	0	0
61	10/13/2012	N	Driver Alcohol/Drug	Rear End	0	0
62	08/25/2012	S	Unsafe Speed	Rear End	0	0
63	05/28/2012	E/N	Driver Alcohol/Drug	Broadside	0	1
64	05/24/2012	W	Improper Turn	Sideswipe	0	3
65	03/07/2012	S	Driver Alcohol/Drug	Rear End	0	0
66	03/02/2012	S	Driver Alcohol/Drug	Sideswipe	0	0
67	01/08/2012	N	Driver Alcohol/Drug	Hit Object	0	1
68	11/27/2011	E	Driver Alcohol/Drug	Hit Object	0	0
69	07/24/2011	E/N	Stop Sign/Signal	Broadside	0	1
70	02/26/2011	E	Driver Alcohol/Drug	Sideswipe	0	0
71	02/09/2011	S	Driver Alcohol/Drug	Hit Object	0	1
72	01/06/2011	E	Starting/Backing	Rear End	0	1
73	11/10/2010	[None]	Driver Alcohol/Drug	Hit Object	0	0
74	10/14/2010	S	Other Hazard	Hit Object	0	0
75	09/17/2010	N	ROW Auto	Broadside	0	0
76	08/10/2010	N	Driver Alcohol/Drug	Hit Object	0	0

[a] Collision data for the Cities of Hermosa Beach and Manhattan Beach were obtained from the California Highway Patrol's (CHP) online Statewide Integrated Traffic Records System (SWITRS) database. Records for years 2010-2013 were requested May 14, 2015, and records for years 2014-2016 were requested February 24, 2016. According to the SWITRS website, data from seven months prior to the date of request should be considered incomplete due to a collision records processing backlog. Therefore, based on the date of request, records for the period of August 2015 to February 2016, while included in this table, are not considered part of the most recent reporting period. The most recent five year reporting period includes records from August 2010 through July 2015.

[b] Vehicle involved with bicycle.