



ASSOCIATED TRANSPORTATION ENGINEERS

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***TRAFFIC IMPACT ANALYSIS FOR THE
455, 457, 459 NORTH HOPE AVENUE SUBDIVISION PROJECT, CITY OF SANTA BARBARA***

Associated Transportation Engineers (ATE) has prepared the following traffic impact analysis for the 455, 457, 459 North Hope Avenue Subdivision Project, proposed in the City of Santa Barbara. The analysis focuses on operations at the State Street/Hope Avenue intersection, and is intended to provide City staff with the traffic data needed to determine the level of environmental review required for the project.

PROJECT TRIP GENERATION

The project is proposing to develop the parcel with nine residential lots. Trip generation estimates were developed for the project based on the Single Family Detached Housing (Land-Use # 210) rates contained in the Institute of Transportation Engineers (ITE) trip Generation report ¹. Table 1 presents the trip generation estimates for the proposed project.

¹ Trip Generation, Institute of Transportation Engineers, 8th Edition, 2008.

EXHIBIT E

**Table 1
Project Trip Generation**

Land Use	Size	Average Daily		A.M. Peak Hour		P.M. Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
Single Family Housing	9 Units	9.57	86	0.75	7	1.01	9

The data presented in Table 1 show that the proposed project would generate a net increase of 86 average daily trips (ADT), 7 A.M. peak hour trips, and 9 P.M. peak hour trips.

PROJECT TRIP DISTRIBUTION

Trip distribution percentages were developed for the project based on existing traffic flows, previous traffic studies, and consideration of the population centers in the surrounding area. Trip distribution percentages and traffic assignments are shown on Figure 1 (attached).

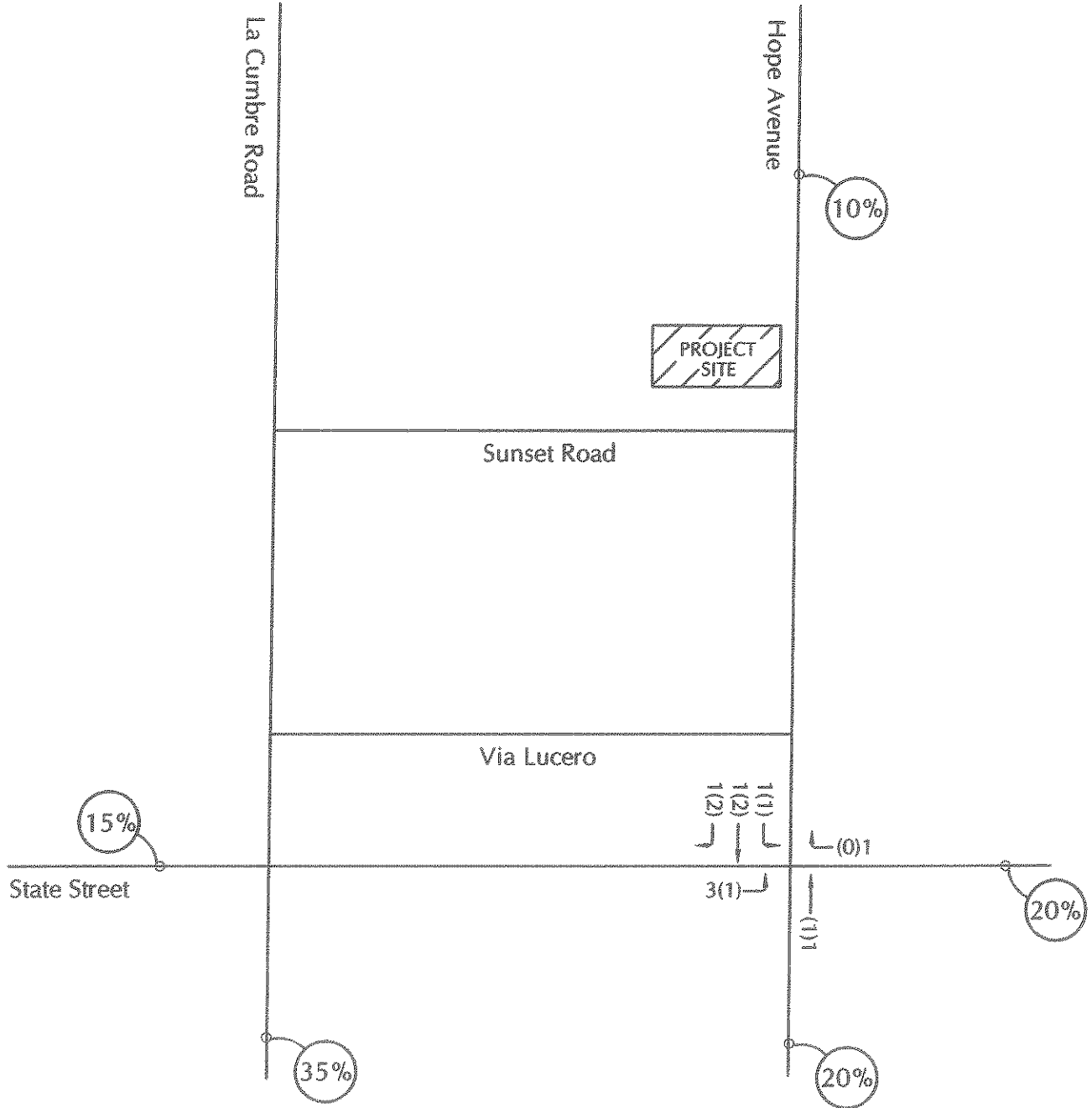
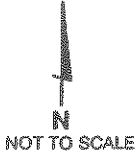
POTENTIAL TRAFFIC IMPACTS

Existing and future traffic volumes for the State Street/Hope Avenue intersection were obtained from data published in the Sandman Inn Redevelopment Project DEIR². Levels of service were assessed at the State Street/Hope Avenue intersection using the "Intersection Capacity Utilization" (ICU) methodology. Level of service calculation sheets are attached for reference. Table 2 presents the Existing + Project and Cumulative + Project peak hour intersection levels of service for the State Street/Hope Avenue intersection.

**Table 2
Peak Hour Intersection Levels Of Service**

Intersection	Existing + Project		Cumulative + Project		Project- Added Trips
	V/C	LOS	V/C	LOS	
<u>State Street/Hope Avenue</u>					
A.M. Peak Hour	0.52	LOS A	0.52	LOS A	7
P.M. Peak Hour	0.66	LOS B	0.69	LOS B	8

² Sandman Inn Redevelopment Project EIR Traffic Study, Iteris, April 2009.



LEGEND

└XX - (A.M.)P.M. Peak Hour Volume

○% - Distribution Percentage



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PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 1

MMF - #09051

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: 3/13/08
 TIME PERIOD: AM
 N/S STREET: HOPE STREET
 E/W STREET: STATE STREET
 CONTROL TYPE: SIGNAL

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	L	T	R	L	T	R	L	T	R	L	T	R
(A) EXISTING	80	161	104	53	170	48	54	601	49	83	628	26
(B) PROJECT	0	1	0	1	2	2	1	0	0	0	0	0
(C) CUMULATIVE	83	164	103	53	173	56	56	619	50	89	651	23

GEOMETRICS

EXISTING GEOMETRICS	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	L	T	R	L	T	R	L	T	R	L	T	R

TRAFFIC SCENARIOS

SCENARIO 1: EXISTING (A)
 SCENARIO 2: EXISTING + PROJECT (A + B)
 SCENARIO 3: EXISTING + CUMULATIVE (A + C)
 SCENARIO 4: EXISTING + PROJECT + CUMULATIVE (A + B + C)

LEVEL OF SERVICE CALCULATIONS

MOVE- MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES				SCENARIO V/C RATIOS					
			1	2	3	4	1	2	3	4		
NBL	1	1600	80	80	83	83	0.05 *	0.05 *	0.05 *	0.05 *		
NBT	1	1600	161	162	164	165	0.10	0.10	0.10	0.10		
NBR	1	1600	104	104	103	103	0.07	0.07	0.06	0.06		
SBL	1	1600	53	54	53	54	0.03	0.03	0.03	0.03		
SBT	1	1600	170	172	173	175	0.11 *	0.11 *	0.11 *	0.11 *		
SBR	1	1600	48	50	56	58	0.03	0.03	0.04	0.04		
EBL	1	1600	54	55	56	57	0.03	0.03	0.04	0.04		
EBT	2	3200	601	601	619	619	0.20 *	0.20 *	0.21 *	0.21 *		
EBR	0	0	49	49	50	50	-	-	-	-		
WBL	1	1600	83	83	89	89	0.05 *	0.05 *	0.06 *	0.06 *		
WBT	2	3200	628	628	651	651	0.20	0.20	0.20	0.20		
WBR	1	1600	26	26	23	23	0.02	0.02	0.01	0.01		
LOST TIME:							0.10 *	0.10 *	0.10 *	0.10 *		
INTERSECTION CAPACITY UTILIZATION:							0.52	0.52	0.53	0.53		
LEVEL OF SERVICE:							A	A	A	A		

NOTES:

#09051 - N.Hope Ave Subdivision

REFERENCE #01PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNTY DATE: 3/13/08

TIME PERIOD: PM

N/S STREET: HOPE STREET

E/W STREET: STATE STREET

CONTROL TYPE: SIGNAL

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	L	T	R	L	T	R	L	T	R	L	T	R
(A) EXISTING	78	257	128	116	131	70	146	825	38	72	754	72
(B) PROJECT	0	1	0	1	1	1	3	0	0	0	0	1
(C) CUMULATIVE	82	260	149	126	133	74	156	866	38	76	788	75

GEOMETRICS

EXISTING GEOMETRICS	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	L	T	R	L	T	R	L	T	R	L	T	R

TRAFFIC SCENARIOS

- SCENARIO 1: EXISTING (A)
- SCENARIO 2: EXISTING + PROJECT (A + B)
- SCENARIO 3: EXISTING + CUMULATIVE (A + C)
- SCENARIO 4: EXISTING + PROJECT + CUMULATIVE (A + B + C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES				SCENARIO V/C RATIOS					
			1	2	3	4	1	2	3	4		
NBL	1	1600	78	78	82	82	0.05	0.05	0.05	0.05		
NBT	1	1600	257	258	260	261	0.16 *	0.16 *	0.16 *	0.16 *		
NBR	1	1600	128	128	149	149	0.08	0.08	0.09	0.09		
SBL	1	1600	116	117	126	127	0.07 *	0.07 *	0.08 *	0.08 *		
SBT	1	1600	131	132	133	134	0.08	0.08	0.08	0.08		
SBR	1	1600	70	71	74	75	0.04	0.04	0.05	0.05		
EBL	1	1600	146	149	156	159	0.09 *	0.09 *	0.10 *	0.10 *		
EBT	2	3200	825	825	866	866	0.27	0.27	0.28	0.28		
EBR	0	0	38	38	38	38	-	-	-	-		
WBL	1	1600	72	72	76	76	0.05	0.05	0.05	0.05		
WBT	2	3200	754	754	788	788	0.24 *	0.24 *	0.25 *	0.25 *		
WBR	1	1600	72	73	75	76	0.05	0.05	0.05	0.05		
LOST TIME:							0.10 *	0.10 *	0.10 *	0.10 *		
INTERSECTION CAPACITY UTILIZATION:							0.66	0.66	0.69	0.69		
LEVEL OF SERVICE:							B	B	B	B		

NOTES: