SECTION 4.0
ALTERNATIVES TO THE PROPOSED PROJECT

4.1 INTRODUCTION

As set forth in CEQA Guidelines §15126.6(a), the purpose of the evaluation of alternatives to a proposed project is to:

> *…describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives, which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.*

Final EIR No. 142 addressed eight alternatives to proposed Master Plan project that was ultimately approved by the City of Newport Beach in 1992 for Hoag. As previously addressed in this EIR, the approved *Hoag Hospital Master Plan* allows for up to 1,343,238 square feet (sf) of uses: 765,349 sf on Upper Campus and 577,889 sf on the Lower Campus. There is currently 890,005 sf of medical and medical-related uses at Hoag, of which 701,856 sf are inpatient, outpatient, and support uses on the Upper Campus and 188,149 sf of outpatient and support uses on the Lower Campus. Therefore, of the remaining 453,233 sf of approved but not constructed uses, 63,493 sf could be developed on the Upper Campus and 389,740 sf could be developed on the Lower Campus under the existing Master Plan. Of the remaining approved but not constructed uses, the Hoag Hospital Master Plan permits additional hospital beds and are a function of Hoag's square footage allocation.

Final EIR No. 142 identified the following as significant, unavoidable adverse impacts:

- ***Land Use:*** The placement of hospital uses closer to residential units on the western side of the Upper Campus would result in significant impacts because of a combination of land use compatibility, shade and shadow, and noise impacts. Although the existing PC Text for the existing Master Plan provides for a greater setback than is required by the City Code, Final EIR No. 142 identified this as a significant unavoidable impact.

- ***Land Use:***[1] The Project would contribute to a significant unavoidable impact because increased development on the Upper Campus would increase the use of internal roads on both the Upper and Lower Campuses and, in turn, contribute to noise and land use impacts on adjacent residential uses.

- ***Air Quality:*** The Project would result in significant cumulative air quality impacts associated with motor vehicle and stationary source pollutant emissions. The Project itself did not exceed thresholds, but when considered with all other present and future

[1] This significant impact was identified in both the Land Use and Transportation/Circulation sections of Final EIR No. 142.

projects, a significant cumulative impact was identified because the South Coast Air Basin (SCAB) continued to exceed State and federal air quality standards.

- ***Noise:*** The Project would not result in significant project-specific exceedances of noise thresholds; however, it would contribute to significant unavoidable cumulative noise impacts. Roadway noise would exceed the 65 Community Noise Equivalency Level (CNEL) along roadways surrounding Hoag.

- ***Construction, Air Quality:*** Air pollutants emitted by construction equipment, construction vehicles, and dust generated by grading and site preparation would exceed South Coast Air Quality Management District (SCAQMD) thresholds.

- ***Construction, Noise:*** Noise during construction would reach high levels and would create a short-term impact on ambient noise levels. Because the noise would occur intermittently over a 20-year period, Final EIR No. 142 identified construction noise as a significant unavoidable impact.

This Supplemental EIR (SEIR) has determined that the proposed Master Plan Update Project would not result in new significant impacts beyond those impacts identified in Final EIR No. 142 or that can now be mitigated to a level considered less than significant with the exception of noise in the loading dock area. As such, Final EIR No. 142 provided an adequate assessment of a reasonable range of alternatives and no further assessment of alternatives is required in this SEIR. CEQA Guidelines §15163(b) states, "the supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised" and CEQA Guidelines §15163(d) states "a supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR."

However, the Project Applicant has requested the consideration of one alternative for informational purposes. Analyzing a mid-range reallocation scenario allows for the assessment of impacts should less than the maximum square footage relocation occur as would be permitted with the proposed Master Plan Update Project. As such, this alternative has been included in this SEIR.

4.1.1 PROJECT SUMMARY

The proposed Master Plan Update Project would allow for the reallocation of up to 225,000 sf of the remaining approved but not constructed development on the Lower Campus to the Upper Campus. As a part of the proposed Master Plan Update Project, the Applicant is not requesting the approval of any project-specific land uses or development projects, only the ability to reallocate square footage. To accommodate the reallocated square footage, amendments to the *City of Newport Beach General Plan*, the Development Agreement, and the *Hoag Hospital Planned Community and District Regulations* (PC Text) are required.

The existing PC Text provides that mechanical equipment noise generated from Hoag not exceed 55 decibels (dB) at all Hoag property lines. This noise restriction, which was established prior to the creation of the City's Noise Element and Noise Ordinance, is proposed to be eliminated. Instead, noise generated at Hoag would be governed by the City's Noise Ordinance except as otherwise provided in paragraphs 1 and 2 below (Exhibit 2-5.)

1. The applicable noise standard at the Hoag property line adjacent to the loading docks shall be as follows:

	7 AM – 10 PM Daytime	10 PM – 7 AM Nighttime
Leq (15 min)	70 dBA	58 dBA

2. Within the loading dock area, delivery vehicles and the loading and unloading of delivery vehicles shall be exempt from any applicable noise standards.

4.1.2 PROJECT OBJECTIVES

CEQA Guidelines §15124(b) indicates that an EIR should include "a statement of objectives sought by the proposed project." The following are the objectives for the Hoag Hospital Master Plan Update Project, as set forth by the Applicant, Hoag Hospital.

- To provide the highest quality health care available.
- To recognize that, as Orange County's population ages and expands, so grows the need for increased health care services.
- To allow greater flexibility in the placement of land uses within the Hoag Hospital Master Plan in an effort to allow the hospital to respond to changes in the health care industry.
- To allow the transfer of square footage between the Lower Campus and the Upper Campus while maintaining an overall development cap.

4.2 ALTERNATIVE TO THE PROPOSED PROJECT

The analysis of the Reduced Transfer of Entitled Development Alternative assumes that all applicable components of the Mitigation Program associated with the proposed Master Plan Update Project would be implemented. However, applicable measures may be scaled to reduce or avoid the potential impacts of the alternative under consideration, and may not precisely match those identified for the proposed Master Plan Update Project. The purpose of the Reduced Transfer to Entitled Development Alternative is to assess the potential impacts if only a portion of the proposed reallocation of square footage from the Lower Campus to the Upper Campus occurs as assumed with the Master Plan Update Project. The proposed Master Plan Update Project would allow for the reallocation of up to 225,000 sq; however, the maximum transfer amount is not mandated. A description of the alternative and a comparative environmental evaluation to the identified impacts of the proposed Master Plan Update Project are provided below.

4.2.1 REDUCED TRANSFER OF ENTITLED DEVELOPMENT ALTERNATIVE

Similar to the proposed Master Plan Update Project (Project), the Reduced Transfer of Entitled Development Alternative (Alternative) would allow greater flexibility in the placement of land uses at Hoag. The Alternative would allow less square footage to be transferred from the Lower Campus to the Upper Campus. This alternative would allow for the reallocation of up to 150,000 sf of development that is currently approved for the Lower Campus to be transferred to the Upper Campus. Although less square footage is proposed for the reallocation under this Alternative, the same increase of inpatient beds (76 beds) is assumed for both the proposed Master Plan Update Project and the Alternative.

Table 4-1 identifies the existing, currently permitted, and proposed square footage assumptions for the Alternative and the Project. As with the proposed Master Plan Update Project, the total square footage at Hoag associated with the Alternative would be 1,343,238 sf.

TABLE 4-1
REDUCED TRANSFER OF ENTITLED DEVELOPMENT ALTERNATIVE

Location	Approved (sf)	Constructed (sf)	Remaining Approved (sf)	Proposed Reallocation (sf)	Remaining After Reallocation (sf)[a]
Upper Campus	765,349	698,121	67,228	+150,000[b]	217,228
Lower Campus	577,889	188,149	389,740	−150,000	239,740
Total Approved (sf)	**1,343,238**				
Total Constructed (sf)		**886,270**			
Total Remaining Approved (sf)			**456,968**		
Proposed Maximum Allowable (sf)				**Upper Campus: 915,349**[c] **Lower Campus: 652,889** **Total not to exceed:1,343,238**[d]	

[a] Assumes reallocation of 150,000 sf from the Lower Campus to the Upper Campus.
[b] Up to 150,000 sf can be transferred from the Lower Campus to the Upper Campus.
[c] The maximum allowable building area on the Upper Campus would be 915,349 sf (existing + currently approved but not developed + the reallocation of 150,000 sf from the Lower Campus), and a maximum allowable building area on the Lower Campus would be 577,889 sf (existing + currently approved but not developed; assumes no reallocation of square footage from the Lower Campus to the Upper Campus). However, in no event could the combined total building areas of both the Upper and Lower Campuses exceed 1,343,238 sf. This means that if the Upper Campus develops at the maximum allowable building area, then the amount of development on the Lower Campus would have to be reduced accordingly. Square footage is inclusive of inpatient hospital beds.
[d] Demolition of some existing structures on the Upper Campus may be required to ensure maximum square feet would not exceed 1,343,238 sf.

Source: City of Newport Beach 2007 (as amended).

Land Use and Related Planning Programs

As previously noted the project alternative does not provide for the approval of any specific development project As such, there are no specific building designs, locations, or features that can be evaluated. Similar to Final EIR No. 142, this EIR addresses potential effects associated with development consistent with existing development criteria for Hoag.

As addressed for the proposed Master Plan Update Project, the Alternative would allow increased intensity of development through the proposed development reallocation to the Upper Campus. However, the Alternative would allow less square footage to be transferred to the Upper Campus (150,000 sf compared to 225,000 sf).

This intensification of uses on the Upper Campus would have a commensurate reduction in development on the Lower Campus. Neither the Project nor the Alternative is anticipated to have significant land use impacts internal to Hoag. The potential displacement of existing structures internal to Hoag was previously assessed in Final EIR No. 142 and was not considered a significant land use impact. This EIR finds that conclusion to be accurate for this Alternative. Without specific development plans, it is unknown exactly how new development would be sited, but it would still occur within the same building envelope assumed in the existing Master Plan and PC Text. Increased development on both the Upper and Lower Campuses was anticipated in the previous EIR.

Land use incompatibility can occur where differences between proximate uses result in differences in the physical scale of development, noise levels, traffic levels, and other factors that impact these uses such that indirect project-related significant unavoidable effects preclude use of the existing land uses as they were intended. With respect to land use impacts on residential uses located west of the Upper Campus, neither the proposed Master Plan Update Project nor the Alternative would result in project-specific impacts that would be greater than or differ from those identified in Final EIR No. 142 for the existing Master Plan. However, the Project and the Alternative would not alleviate the significant unavoidable land use impact found in Final EIR No. 142. Therefore, the land use incompatibility impact identified for the existing Master Plan project in Final EIR No. 142 would continue to exist with buildout of either the Project or the Alternative. This does not constitute a new impact. Although less development would be reallocated from the Lower Campus to the Upper Campus as a part of this Alternative, neither scenario would reduce the unavoidable impact to a less than significant level. No significant land use compatibility impacts are anticipated associated with the Alternative with respect to the Lower Campus or land uses to the north, east, and south of the Upper Campus.

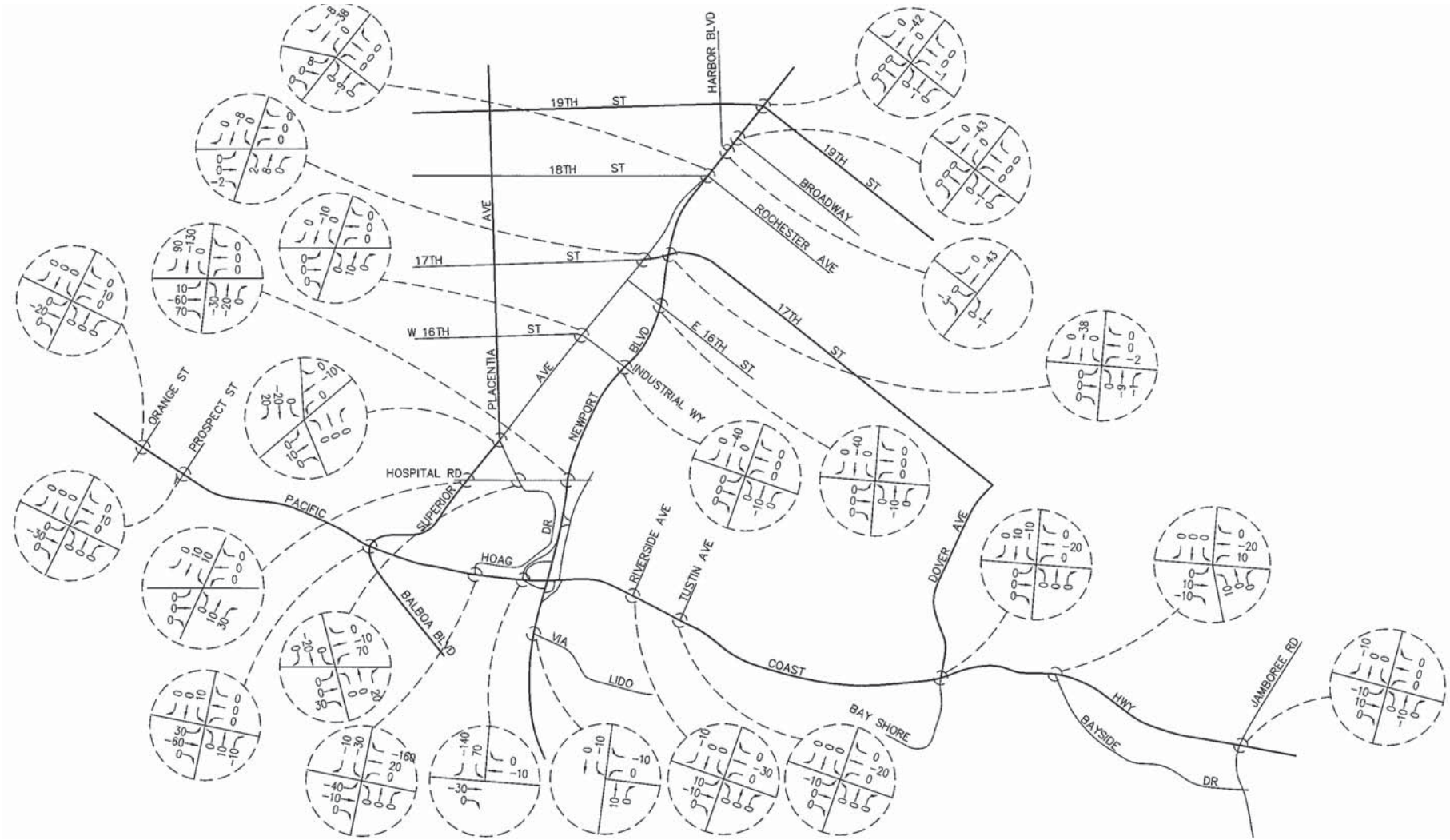
As with the proposed Master Plan Update Project, this Alternative would require a General Plan Amendment, PC Text Amendment, and Development Agreement Amendment to establish a maximum allowable building area of 915,349 sf for the Upper Campus (if all 150,000 sf are reallocated from the Lower Campus to the Upper Campus) and 577,889 sf (if no square footage is reallocated) for the Lower Campus. The Alternative is consistent with applicable policies identified in the General Plan Land Use Element and Local Coastal Program.

Transportation and Circulation

This discussion summarizes the findings of the traffic impact study prepared by Linscott, Law & Greenspan, Engineers (LLG) (2007) to evaluate the potential traffic impacts associated with the Alternative. The study is included in its entirety as Appendix C of this SEIR.

Trip Generation

Trip generation associated with the Alternative is provided in Table 4-2. Inclusive of existing Hoag development, the Alternative would generate 25,365 daily trips: 1,995 AM peak hour trips and 1,959 PM peak hour trips. Table 4-2 also identifies that the Alternative would result in a reduction in traffic generation for the Lower Campus, corresponding to 1,787 fewer daily trips, 227 fewer AM peak hour trips, and 235 fewer PM peak hour trips compared to buildout of Hoag under the existing Master Plan assumptions. Exhibits 4-1 and 4-2 identify the Alternative-generated traffic volumes at the 24 key intersections during the AM and PM peak hours, respectively.The Alternative is projected to generate the same trips on the Upper Campus as the proposed Master Plan Update Project. This proposed reallocation would generate less traffic than development under the existing Master Plan. Outpatient uses typically generate more trips than inpatient uses. Therefore, the reallocation of up to 150,000 sf of the greater, trip-generating outpatient uses from the Lower Campus would cause a reduction in Lower Campus trips. Adding that same square footage to the Upper Campus as lesser, trip-generating inpatient use, some outpatient and support uses (the latter which does not generate additive trips) results in some increase in Upper Campus trips, but not as much as the reduction of Lower Campus trips. The net effect of having some increase in Upper Campus trips, and a major reduction in Lower Campus trips, is an overall decrease in trips for Hoag under the Alternative development scenario. When comparing traffic generation for the Alternative to the traffic generation of the existing Master Plan and the proposed Master Plan Update Project, the Alternative would not result in a significant traffic generation impact.



Project Alternative AM Peak Hour Traffic Volumes

Exhibit 4-1

Hoag Hospital Master Plan Update Supplemental EIR

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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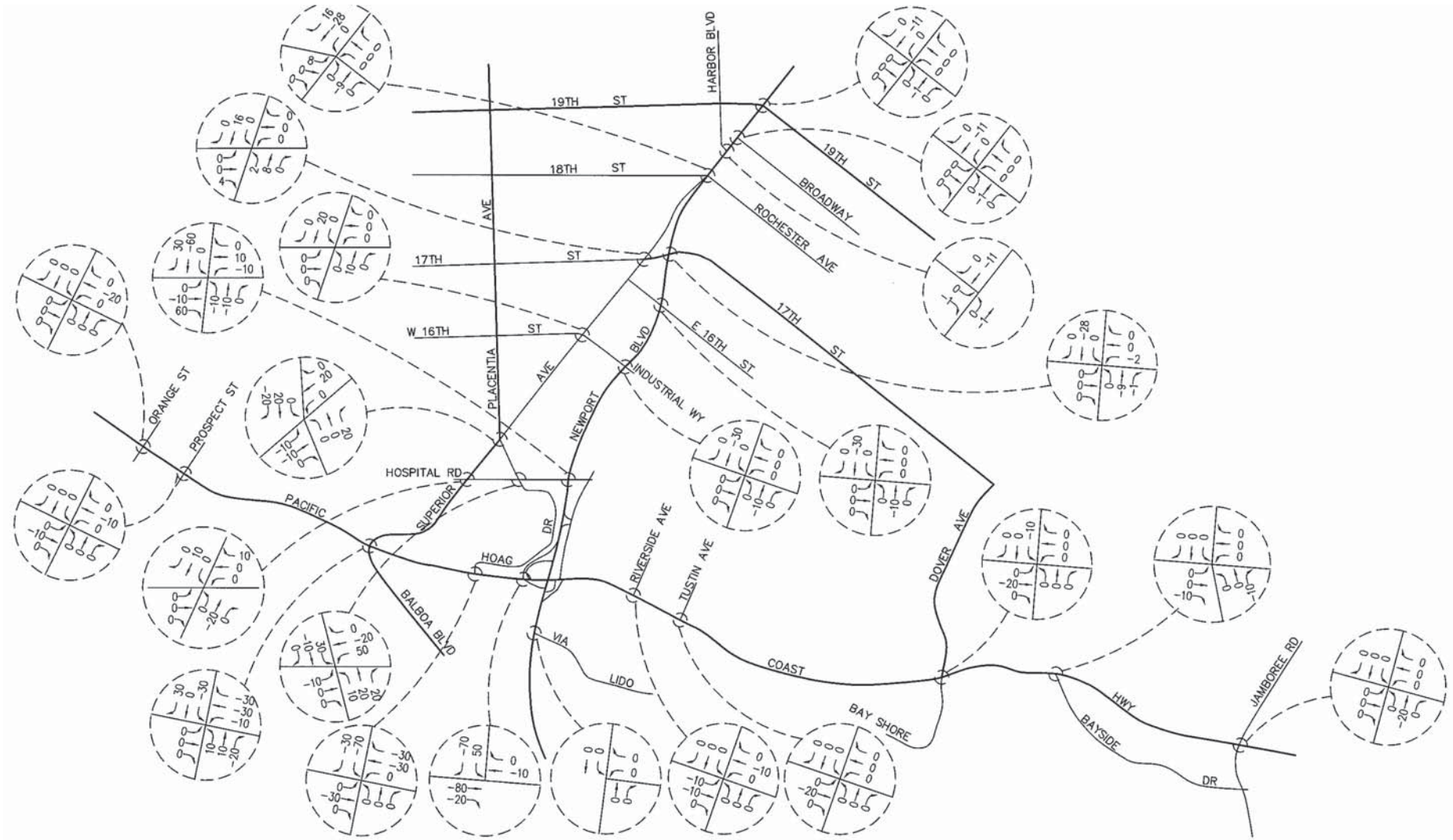

Project Alternative PM Peak Hour Traffic Volumes

Exhibit 4-2

Hoag Hospital Master Plan Update Supplemental EIR

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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TABLE 4-2
PROJECT TRIP GENERATION ESTIMATES

Description	Existing									Existing + Existing Master Plan										Existing + Alternative										Alternative Generated Trips						
	Size		Daily Trips	AM Peak Hr Trips			PM Peak Hr Trips			Size (GSF)			Daily Trips	AM Peak Hr Trips			PM Peak Hr Trips			Size (GSF)			Daily Trips	AM Peak Hr Trips			PM Peak Hr Trips			Daily Trips	AM Peak Hr Trips			PM Peak Hr Trips		
	GSF[a]	Beds		In	Out	Total	In	Out	Total	Addition	Existing + Addition	Total Beds		In	Out	Total	In	Out	Total	Addition	Existing + Addition	Total Beds		In	Out	Total	In	Out	Total		In	Out	Total	In	Out	Total
Upper Campus																																				
Inpatient/Inpatient (South Building)	643,436	409	10,552	376	290	666	205	425	630	67,228	710,664	409	10,552	376	290	666	205	425	630	56,335[c]	699,771	485	12,513	446	344	790	243	504	747	1,961	70	54	124	38	79	117
Outpatient (Women's Pavilion)	15,392	–	526	28	22	50	15	35	50	–	15,392	–	526	28	22	50	15	35	50	–	15,392	–	526	28	22	50	15	35	50	0	0	0	0	0	0	0
Outpatient (James Irvine Expansion)	800	–	27	1	1	2	1	2	3	–	800	–	27	1	1	2	1	2	3	–	800	–	27	1	1	2	1	2	3	0	0	0	0	0	0	0
Outpatient (Cardiac Serv. Bldg. 1995)	5,544	–	190	10	8	18	5	12	17	–	5,544	–	190	10	8	18	5	12	17	–	5,544	–	190	10	8	18	5	12	17	0	0	0	0	0	0	0
Outpatient (MRI Waiting)	500	–	17	1	1	2	0	1	1	–	500	–	17	1	1	2	0	1	1	–	500	–	17	1	1	2	0	1	1	0	0	0	0	0	0	0
Support (Women's Pavilion)[b]	27,114	–	–	–	–	–	–	–	–	–	27,114	–	–	–	–	–	–	–	–	–	27,114	–	–	–	–	–	–	–	–	0	0	0	0	0	0	0
Support (Emergency Gen. Addition)[b]	5,335	–	–	–	–	–	–	–	–	–	5,335	–	–	–	–	–	–	–	–	–	5,335	–	–	–	–	–	–	–	–	0	0	0	0	0	0	0
Outpatient (South Building)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	26,268	26,268	–	898	47	37	84	25	59	84	898	47	37	84	25	59	84
Support (South Building)[b]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	120,498	120,498	–	–	–	–	–	–	–	–	0	0	0	0	0	0	0
Outpatient (Imaging/ECU Expansion)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14,127	14,127	–	483	25	20	45	14	32	46	483	25	20	45	14	32	46
Upper Campus Total:	**698,121**	–	11,312	416	322	738	226	475	**701**	**67,228**	**765,349**	**409**	**11,312**	**416**	**322**	**738**	**226**	**475**	**701**	**217,228**	**915,349**	**485**	**14,654**	**558**	**433**	**991**	**303**	**645**	**948**	**3,342**	**142**	**111**	**253**	**77**	**170**	**247**
Lower Campus																																				
Outpatient (Cancer Center)	65,000	–	2,222	116	92	208	63	146	209	–	65,000	–	2,222	116	92	208	63	146	209	–	65,000	–	2,222	116	92	208	63	146	209	0	0	0	0	0	0	0
Outpatient (Conference Center)	13,270	–	454	24	19	43	13	30	43	–	13,270	–	454	24	19	43	13	30	43	–	13,270	–	454	24	19	43	13	30	43	0	0	0	0	0	0	0
Support (Conference Center)[b]	77,864	–	–	–	–	–	–	–	–	–	77,864	–	–	–	–	–	–	–	–	–	77,864	–	–	–	–	–	–	–	–	0	0	0	0	0	0	0
Support (Child Care Center)[b]	7,800	–	–	–	–	–	–	–	–	–	7,800	–	–	–	–	–	–	–	–	–	7,800	–	–	–	–	–	–	–	–	0	0	0	0	0	0	0
Support (Cogeneration Building)[b]	24,215	–	–	–	–	–	–	–	–	–	24,215	–	–	–	–	–	–	–	–	–	24,215	–	–	–	–	–	–	–	–	0	0	0	0	0	0	0
Outpatient	–	–	–	–	–	–	–	–	–	225,000	225,000	–	7,693	403	317	720	218	506	724	75,000	75,000	–	2,564	134	106	240	73	169	242	(5,129)	(269)	(211)	(480)	(145)	(337)	(482)
Outpatient (Outpatient Building)	–	–	–	–	–	–	–	–	–	110,000	110,000	–	3,761	197	155	352	107	248	355	110,000	110,000	–	3,761	197	155	352	107	248	355	0	0	0	0	0	0	0
Outpatient (Medical Office Building)	–	–	–	–	–	–	–	–	–	50,027	50,027	–	1,710	90	71	161	49	113	162	50,027	50,027	–	1,710	90	71	161	49	113	162	0	0	0	0	0	0	0
Support (Child Care Ctr. Expansion)[b]	–	–	–	–	–	–	–	–	–	4,713	4,713	–	–	–	–	–	–	–	–	4,713	4,713	–	–	–	–	–	–	–	–	0	0	0	0	0	0	0
Lower Campus Total:	**188,149**	–	**2,676**	**140**	**111**	**251**	**76**	**176**	**252**	**389,740**	**577,889**	–	**15,840**	**830**	**654**	**1,484**	**450**	**1,043**	**1,493**	**239,740**	**427,889**	–	**10,711**	**561**	**443**	**1,004**	**305**	**706**	**1,011**	**(5,129)**	**(269)**	**(211)**	**(480)**	**(145)**	**(337)**	**(482)**
Upper and Lower Campuses:	**886,270**	**409**	**13,988**	**556**	**433**	**989**	**302**	**651**	**953**	**456,968**	**1,343,238**	**409**	**27,152**	**1,246**	**976**	**2,222**	**676**	**1,518**	**2,194**	**456,968**	**1,343,238**	**485**	**25,365**	**1,119**	**876**	**1,995**	**608**	**1,351**	**1,959**	**(1,787)**	**(127)**	**(100)**	**(227)**	**(68)**	**(167)**	**(235)**

[a] Gross Square Feet
[b] The ancillary uses under the Support category are not expected to generate additional trips.
[c] The entire project-related addition of 56,335 sf of inpatient square footage (inclusive of 76 new beds) is for the South Building.

Source: Linscott, Law & Greenspan Engineers 2007.

Year 2015 Without Project Alternative (Existing Master Plan)

The *Year 2015 Without Project Alternative* scenario assumes implementation of the existing Master Plan (no reallocation of square footage), as well as regional growth and related cumulative projects. Table 4-3 identifies the traffic study area intersections' levels of service during the AM and PM peak hours. The six intersections would operate at a deficient level of service under the *Year 2015 Without Project Alternative* scenario (three intersections in Newport Beach and three intersections in Costa Mesa).

TABLE 4-3
YEAR 2015 WITHOUT AND WITH PROJECT ALTERNATIVE
INTERSECTION LEVELS OF SERVICE

Key Intersections	Peak Period	Year 2015					
		Existing Master Plan		Project Alternative			
		ICU	LOS	ICU	LOS	ICU Contribution	Significant Impact?
City of Newport Beach							
1. Orange Street/West Coast Highway	AM	0.81	D	0.80	D	-0.01	No
	PM	0.75	C	0.74	C	-0.01	No
2. Prospect Street/West Coast Highway	AM	0.87	D	0.87	D	-0.01	No
	PM	0.77	C	0.77	C	0.00	No
3. Balboa Boulevard-Superior Ave./West Coast Highway	AM	0.89	D	0.88	D	-0.02	No
	PM	**0.96**	**E**	**0.96**	**E**	0.00	No
4. Riverside Avenue/West Coast Highway	AM	0.81	D	0.80	D	-0.01	No
	PM	0.82	D	0.81	D	-0.01	No
5. Tustin Avenue/West Coast Highway	AM	0.85	D	0.85	D	0.00	No
	PM	0.70	B	0.70	B	0.00	No
6. Bay Shore Drive-Dover Drive/West Coast Highway	AM	0.76	C	0.76	C	0.00	No
	PM	0.86	D	0.86	D	0.00	No
7. Bayside Drive/East Coast Highway	AM	0.84	D	0.85	D	0.01	No
	PM	0.75	C	0.75	C	0.00	No
8. Jamboree Road/East Coast Highway	AM	0.72	C	0.71	C	-0.01	No
	PM	0.72	C	0.72	C	0.00	No
9. Newport Boulevard/Via Lido	AM	0.53	A	0.53	A	0.00	No
	PM	0.42	A	0.42	A	0.00	No
10. Newport Boulevard/Hospital Road	AM	0.69	B	0.65	B	-0.04	No
	PM	**0.94**	**E**	**0.92**	**E**	-0.02	No
11. Placentia Avenue/Superior Avenue	AM	0.66	B	0.65	B	-0.01	No
	PM	0.61	B	0.62	B	0.01	No
12. Newport Boulevard Southbound Off-Ramp/West Coast Highway	**AM**	**0.98**	**E**	0.88	D	-0.10	No
	PM	0.84	D	0.80	C	-0.04	No
13. Superior Avenue/Hospital Road	AM	0.68	B	0.70	C	0.02	No
	PM	0.48	A	0.48	A	0.00	No
14. Hoag Drive-Placentia Avenue/Hospital Road	AM	0.39	A	0.39	A	0.00	No
	PM	0.50	A	0.51	A	0.01	No
15. Hoag Drive/West Coast Highway	AM	0.58	A	0.57	A	-0.01	No
	PM	0.56	A	0.53	A	-0.03	No

TABLE 4-3 (Continued)
YEAR 2015 WITHOUT AND WITH PROJECT ALTERNATIVE
INTERSECTION LEVELS OF SERVICE

Key Intersections	Peak Period	Year 2015					
		Existing Master Plan		Project Alternative			
		ICU	LOS	ICU	LOS	ICU Contribution	Significant Impact?
City of Costa Mesa							
16. Superior Avenue/16th Street-Industrial Way	AM	0.45	A	0.45	A	0.00	No
	PM	0.45	A	0.46	A	0.01	No
17. Newport Boulevard/Industrial Way	AM	0.61	B	0.61	B	0.00	No
	PM	0.59	A	0.59	A	0.00	No
18. Newport Boulevard/16th Street	AM	0.53	A	0.53	A	0.00	No
	PM	0.53	A	0.53	A	0.00	No
19. Superior Avenue/17th Street	**AM**	**0.97**	**E**	**0.97**	**E**	0.00	No
	PM	0.73	C	0.73	C	0.00	No
20. Newport Boulevard/17th Street	AM	0.86	D	0.86	D	0.00	No
	PM	0.89	D	0.89	D	0.00	No
21. Newport Boulevard/18th Street-Rochester Street	AM	0.79	C	0.78	C	-0.01	No
	PM	**0.95**	**E**	**0.94**	**E**	-0.01	No
22. Newport Boulevard/Harbor Boulevard	AM	0.71	C	0.70	B	-0.01	No
	PM	0.80	C	0.80	C	0.00	No
23. Newport Boulevard /Broadway Boulevard	AM	0.65	B	0.65	B	0.00	No
	PM	0.76	C	0.76	C	0.00	No
24. Newport Boulevard/19th Street	**AM**	**0.90**	**E**	**0.90**	**E**	0.00	No
	PM	**0.93**	**E**	**0.93**	**E**	0.00	No

Source: Linscott, Law & Greenspan Engineers 2007.

As noted on Table 4-3, the following intersections are projected to be at a deficient level of service in 2015 under the existing Master Plan assumptions:

City of Newport Beach

3. Balboa Boulevard-Superior Avenue/West Coast Highway – 0.96, (LOS E) PM peak
10. Newport Boulevard/Hospital Road – 0.94 (LOS E), PM peak
12. Newport Boulevard Southbound Off-Ramp/West Coast Highway – 0.98 (LOS E), AM peak

City of Costa Mesa

19. Superior Avenue/17th Street – 0.97 (LOS E), AM peak
21. Newport Boulevard/18th Street-Rochester Avenue – 0.95 (LOS E), PM peak
24. Newport Boulevard/19th Street – 0.90 (LOS E), AM peak period; 0.93 (LOS E), PM peak

Year 2015 With Project Alternative

Estimates of Alternative-generated traffic volumes were added to the *Year 2015 Without Project Alternative (Existing Master Plan)* volumes to determine the potential for Alternative-specific impacts. This is an analysis of future traffic conditions in 2015 expected to result from regional growth, related projects, currently approved development at Hoag, and traffic generated by the Alternative. Exhibits 4-3 and 4-4 depict the AM and PM peak traffic volumes, respectively, in 2015 with the Alternative.

Table 4-3 shows that implementation of the Alternative would not change the LOS at five of the six intersections that are projected to operate at a deficient level of service in 2015 with the existing Master Plan. The sixth intersection, Newport Boulevard southbound off-ramp at West Coast Highway (#12) would experience an improved ICU (from LOS E to LOS D in the AM peak period). This change would also occur with the proposed Master Plan Update Project. This improvement is associated with the reallocation of square footage from the Lower Campus to the Upper Campus. When compared to the proposed Master Plan Update Project, the Alternative would not improve the ICU at two additional deficient intersections. With the Project, Newport Boulevard/Hospital Road (#10) and Newport Boulevard/18th Street–Rochester Street (#21) would experience an improved ICU.

The square footage reallocation proposed as a part of the Alternative would not result in a significant traffic impact in 2015 when compared to the existing Master Plan or the proposed Master Plan Update Project.

Year 2025 Without Project Alternative (Existing Master Plan)

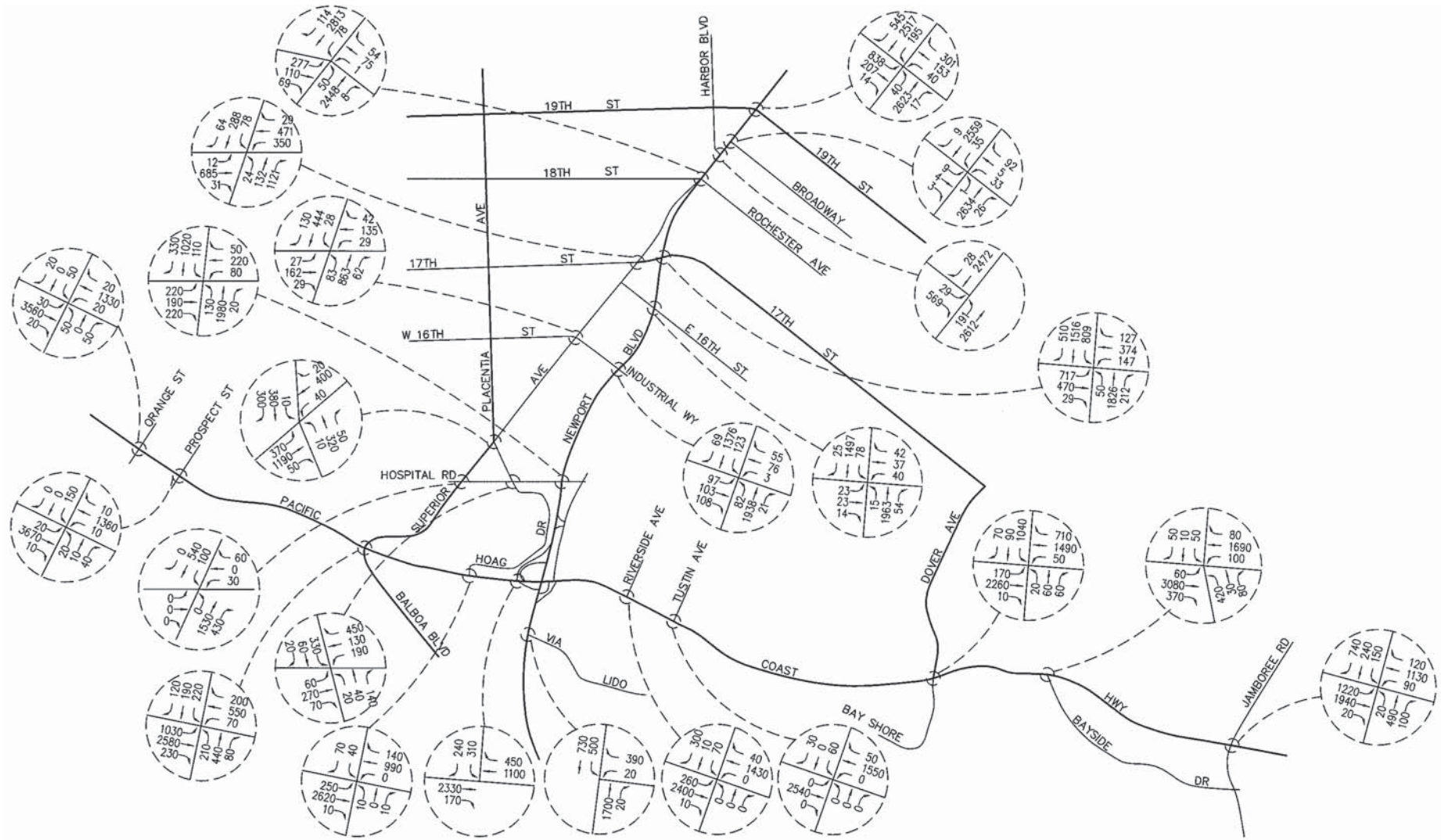
This scenario projects future traffic conditions in 2025 (General Plan buildout) that could be expected to result from regional growth, related projects, and currently approved development for Hoag, but without the reallocation of up to 150,000 sf development from the Lower Campus to the Upper Campus. Table 4-4 identifies the traffic study area intersections levels of service during the AM and PM peak hours.

City of Newport Beach

4. Riverside Avenue/West Coast Highway ─ 0.92 (LOS E), AM peak; 0.96 (LOS E), PM peak
6. Bay Shore Drive-Dover Drive/West Coast Highway ─ 0.92 (LOS E), PM peak
12. Newport Boulevard Southbound Off-Ramp/West Coast Highway ─ 1.15 (LOS F), AM peak

City of Costa Mesa

20. Newport Boulevard/17th Street ─ 0.97 (LOS E), AM peak period; 0.96 (LOS E), PM peak
21. Newport Boulevard/18th Street–Rochester Avenue ─ 0.99 (LOS E), AM peak; 0.97 (LOS E), PM peak
24. Newport Boulevard/19th Street ─ 1.06 (LOS F), AM peak; 1.03 (LOS F), PM peak



Year 2015 With Project Alternative AM Peak Hour Traffic Volumes

Exhibit 4-3

Hoag Hospital Master Plan Update Supplemental EIR

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex.4-3_Alt_2015AMPeak_083107.pdf

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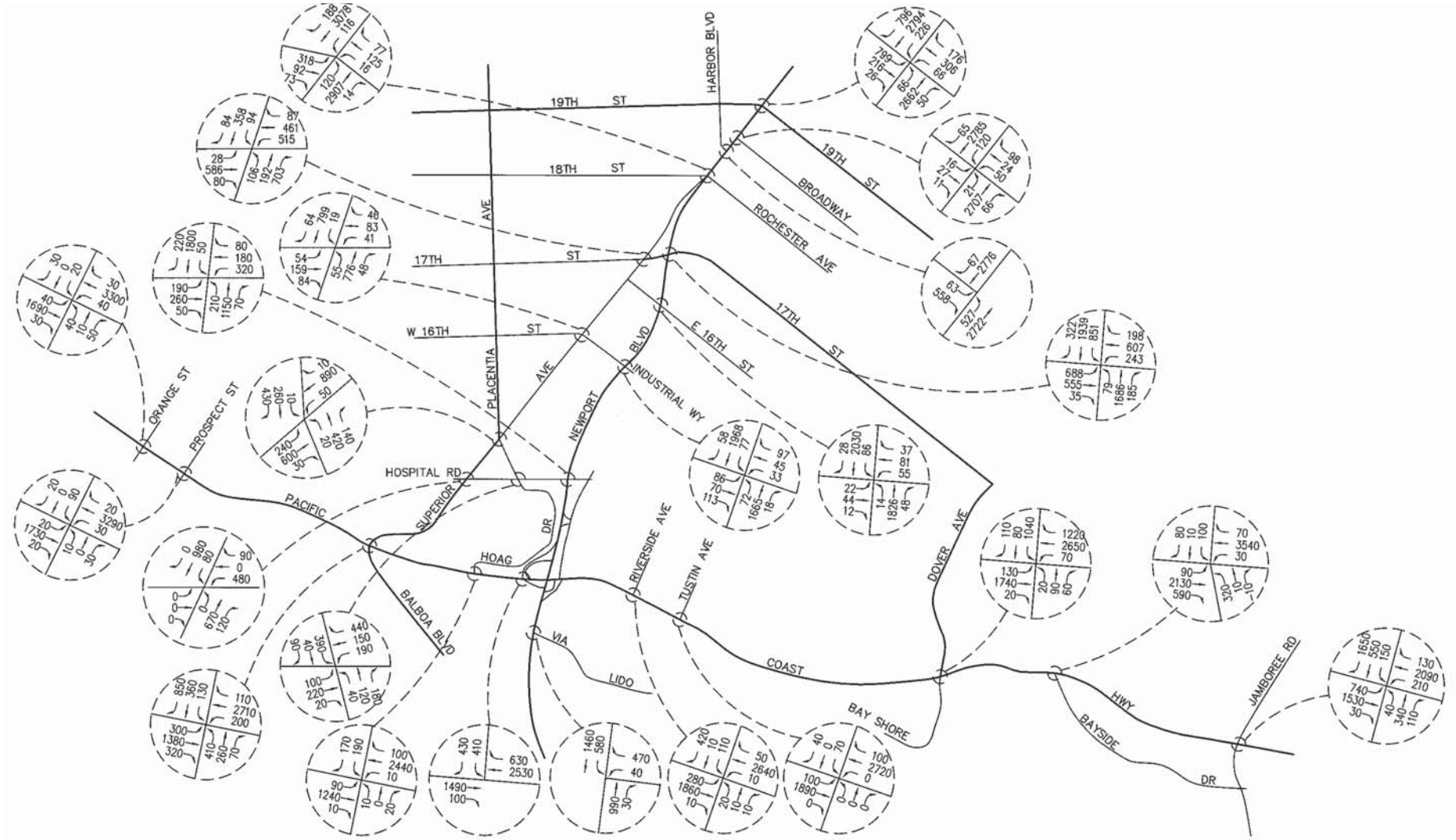

Year 2015 With Project Alternative PM Peak Hour Traffic Volumes

Exhibit 4-4

Hoag Hospital Master Plan Update Supplemental EIR

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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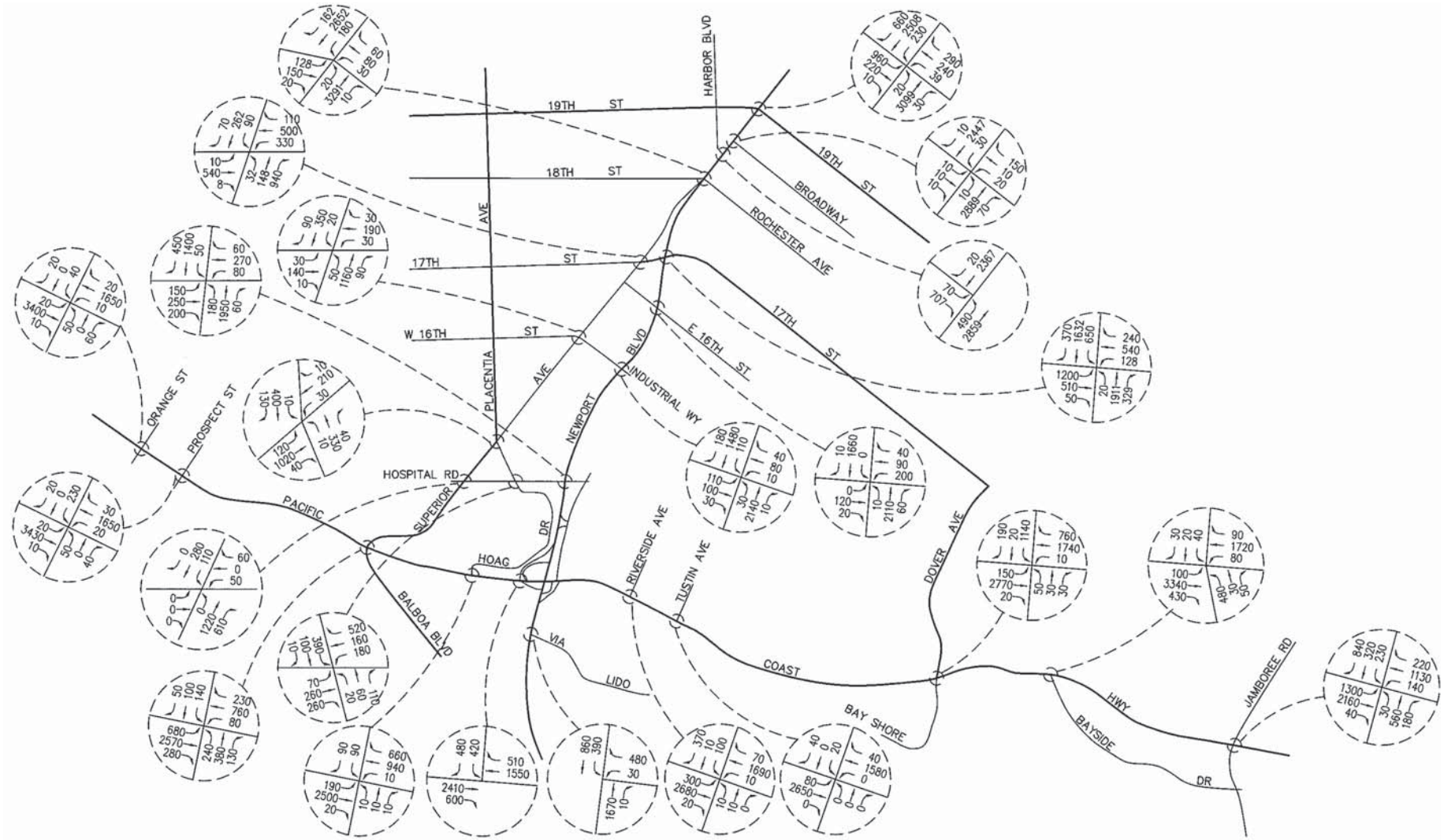

Year 2025 With Project Alternative AM Peak Hour Traffic Volumes

Exhibit 4-5

Hoag Hospital Master Plan Update Supplemental EIR

Source: Linscott Law & Greenspan Engineers

R:/Projects/Newport/J008/Graphics/Ex.4-5_Alt_2025AMPeak_083107.pdf

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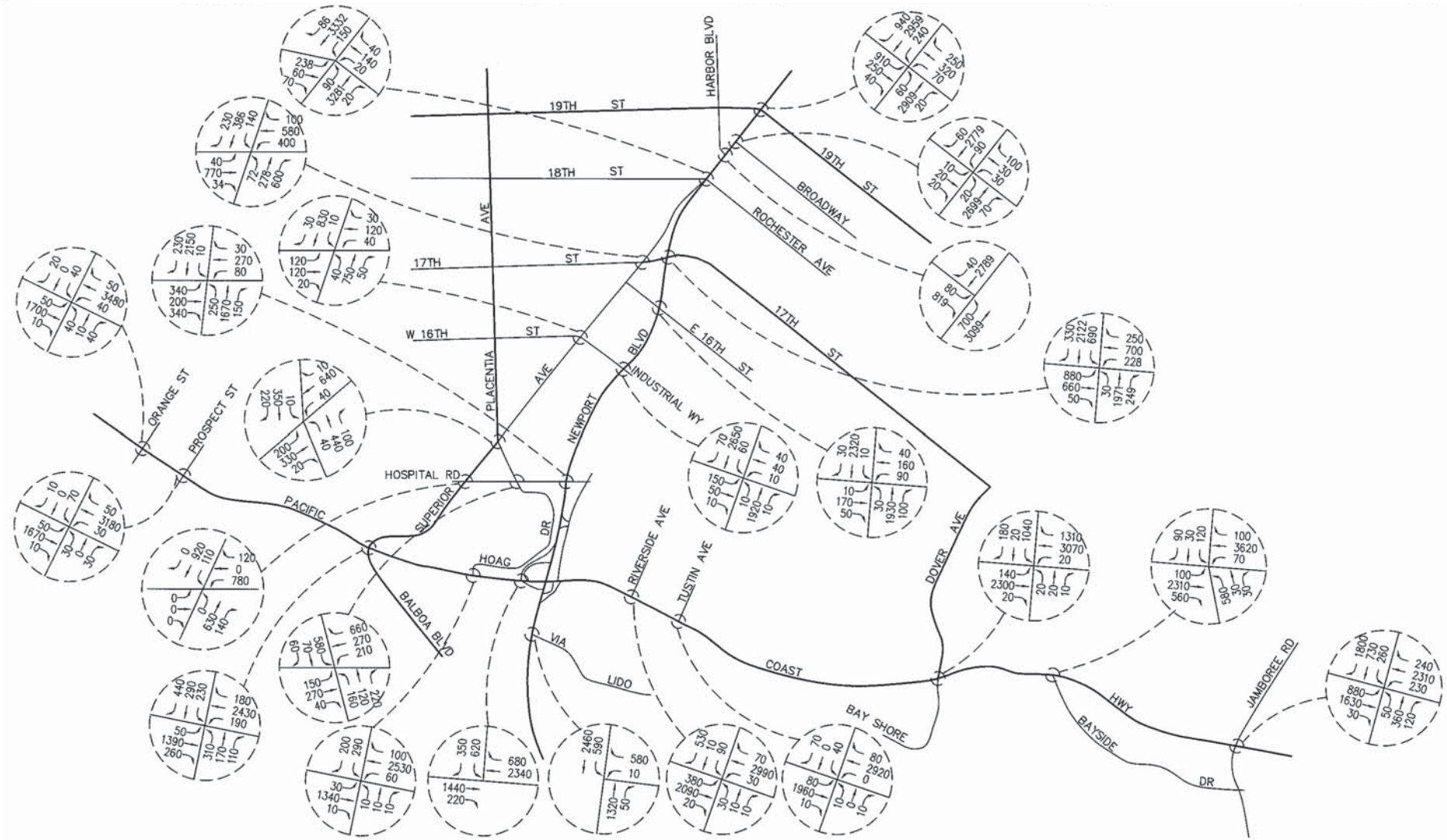

Year 2025 With Project Alternative PM Peak Hour Traffic Volumes

Exhibit 4-6

Hoag Hospital Master Plan Update Supplemental EIR

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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Year 2025 With Project Alternative

Year 2025 With Project Alternative is an analysis of future traffic conditions in 2025 (General Plan buildout) which could be expected to result from regional growth, related projects, and buildout of Hoag under the Alternative development assumptions. The estimates of traffic generated by the Alternative were added to the *Year 2025 Without Project Alternative (Existing Master Plan)* volumes to develop traffic projections for this scenario. Exhibits 4-5 and 4-6 depict the AM and PM peak traffic volumes, respectively, in the 2025 With Alternative.

TABLE 4-4
YEAR 2025 WITHOUT AND WITH PROJECT ALTERNATIVE
INTERSECTION LEVELS OF SERVICE

Intersections	Peak Period	Year 2025					
		Existing Master Plan		Project Alternative			
		ICU	LOS	ICU	LOS	ICU Contribution	Significant Impact?
City of Newport Beach							
1. Orange Street/West Coast Highway	AM	0.76	C	0.75	C	-0.01	No
	PM	0.80	C	0.79	C	-0.01	No
2. Prospect Street/West Coast Highway	AM	0.89	D	0.89	D	0.00	No
	PM	0.76	C	0.75	C	-0.01	No
3. Balboa Boulevard-Superior Avenue/West Coast Highway	AM	0.84	D	0.83	D	-0.01	No
	PM	0.78	C	0.76	C	-0.02	No
4. Riverside Avenue/West Coast Highway	**AM**	**0.92**	**E**	**0.92**	**E**	0.00	No
	PM	**0.96**	**E**	**0.95**	**E**	-0.01	No
5. Tustin Avenue/West Coast Highway	AM	0.87	D	0.87	D	0.00	No
	PM	0.73	C	0.73	C	0.00	No
6. Bay Shore Drive-Dover Drive/ West Coast Highway	AM	0.86	D	0.86	D	0.00	No
	PM	**0.92**	**E**	**0.91**	**E**	-0.01	No
7. Bayside Drive/East Coast Highway	AM	0.88	D	0.89	D	0.01	No
	PM	0.85	D	0.85	D	0.00	No
8. Jamboree Road/East Coast Highway	AM	0.83	D	0.82	D	-0.01	No
	PM	0.86	D	0.86	D	0.00	No
9. Newport Boulevard/Via Lido	AM	0.50	A	0.50	A	0.00	No
	PM	0.52	A	0.52	A	0.00	No
10. Newport Boulevard/Hospital Road	AM	0.77	C	0.70	C	-0.07	No
	PM	0.86	D	0.85	D	-0.01	No
11. Placentia Avenue/Superior Avenue	AM	0.61	B	0.60	A	-0.01	No
	PM	0.53	A	0.55	A	0.02	No
12. Newport Boulevard Southbound Off-Ramp/West Coast Highway	**AM**	**1.15**	**F**	**1.05**	**F**	-0.10	No
	PM	0.75	C	0.71	C	-0.04	No
13. Superior Avenue/Hospital Road	AM	0.66	B	0.68	B	0.02	No
	PM	0.59	A	0.59	A	0.00	No
14. Hoag Drive-Placentia Avenue/ Hospital Road	AM	0.47	A	0.48	A	0.01	No
	PM	0.77	B	0.78	C	0.01	No
15. Hoag Drive/West Coast Highway	AM	0.58	A	0.57	A	-0.01	No
	PM	0.58	A	0.55	A	-0.03	No

TABLE 4-4 (Continued)
YEAR 2025 WITHOUT AND WITH PROJECT ALTERNATIVE
INTERSECTION LEVELS OF SERVICE

Intersections	Peak Period	Year 2025					
		Existing Master Plan		Project Alternative			
		ICU	LOS	ICU	LOS	ICU Contribution	Significant Impact?
City of Costa Mesa							
16. Superior Avenue/16th Street-. Industrial Way	AM	0.58	A	0.58	A	0.00	No
	PM	0.48	A	0.49	A	0.01	No
17. Newport Boulevard/Industrial Way	AM	0.66	B	0.65	B	-0.01	No
	PM	0.71	C	0.70	C	-0.01	No
18. Newport Boulevard/16th Street	AM	0.67	B	0.67	B	0.00	No
	PM	0.70	C	0.70	B	0.00	No
19. Superior Avenue/17th Street	AM	0.82	D	0.82	D	0.00	No
	PM	0.76	C	0.76	C	0.00	No
20. Newport Boulevard/17th Street	**AM**	**0.97**	**E**	**0.96**	**E**	-0.01	No
	PM	**0.96**	**E**	**0.96**	**E**	0.00	No
21. Newport Boulevard/18th Street-Rochester Street	**AM**	**0.99**	**E**	**0.98**	**E**	-0.01	No
	PM	**0.97**	**E**	**0.97**	**E**	0.00	No
22. Newport Boulevard/Harbor Boulevard	AM	0.73	C	0.72	C	-0.01	No
	PM	0.86	D	0.86	D	0.00	No
23. Newport Boulevard/Broadway Boulevard	AM	0.75	C	0.75	C	0.00	No
	PM	0.73	C	0.73	C	0.00	No
24. Newport Boulevard/19th Street	**AM**	**1.06**	**F**	**1.06**	**F**	0.00	No
	PM	**1.03**	**F**	**1.03**	**F**	0.00	No

Source: Linscott, Law & Greenspan Engineers 2007.

The same six intersections (three intersections in Newport Beach and three intersections in Costa Mesa) that would operate at a deficient LOS E or LOS F with the existing Master Plan and proposed Master Plan Update project would be deficient with the Alternative. Of the deficient intersections, the LOS and ICU are very similar for nine of the ten intersections with both the proposed Master Plan Update and the Alternative. With respect to the Newport Boulevard southbound off-ramp at West Coast Highway, the reallocation of development from the Lower Campus to the Upper Campus has the most beneficial effect with the Project (1.00 [LOS F], AM Peak) compared to the existing Master Plan (1.15 [LOS F], AM Peak), and the Alternative (1.05 [LOS F], AM Peak). Based on the traffic significance criteria set forth in this EIR and identified in Table 4-4, no significant traffic impacts are anticipated beyond that assumed in Final EIR No. 142.

Site Access and Circulation

LSA Associates, Inc. (LSA 2007) prepared an analysis to assess the traffic operations of Hoag's site access and on-site circulation for the proposed Master Plan Update Project. Because the Alternative would allow for less reallocation of approved development from the Lower Campus to the Upper Campus and is therefore a mid-point analysis between the existing Master Plan and the Project, the analysis is also applicable to this Alternative scenario.

On the site, vehicular traffic is distributed to parking lots and structures based on proximity to one's destination (e.g., James Irvine Surgery Center, Cancer Center). The analysis distributed on-site trips per land use based on the proximity to parking and the number of parking spaces in each location. The analysis found that existing turn pocket lengths at Hoag Drive/Hospital Road are sufficient to accommodate the forecasted inbound vehicle queues during the AM and PM peak hours. Although the forecasted northbound right-turn vehicle queue exceeds the length of the turn lane, vehicle stacking would occur on the site. Access and circulation would not be affected because vehicles entering the site via Hospital Road may access the emergency vehicle/drop-off driveway unobstructed. Queuing is not a concern on Hospital Road because the westbound left-turn queue at Hoag Drive/Hospital Road is not anticipated to exceed the length of the turn lane. Therefore, the westbound left-turn queue would not affect the through movement along Hospital Road. Because Hoag Drive/Hospital Road is forecasted to operate at LOS C or better during the peak hours, there is adequate capacity at the intersection for all vehicles in the turn pocket to make a westbound left turn during each cycle. The existing turn pocket lengths at Hoag Drive/West Coast Highway are sufficient to accommodate the inbound and outbound vehicle queues during both peak hours.

To ensure that future site-specific projects do not affect the on-site circulation system, the LSA analysis proposes design criteria to evaluate applications for individual building projects. These criteria provide guidance on the minimum distance between on-site driveways, the minimum left-turn volume requiring a turn pocket, and a method for evaluating queuing at on-site parking garage entrances. These proposals would also be applicable to the Alternative (see Section 2.3 of this SEIR). As with the proposed Master Plan Update Project, mitigation has been provided to ensure that the Alternative would have no significant impacts with respect to on-site circulation.

Parking

All parking is required to be provided on the site. Parking requirements for specific sites are based upon the parking criteria identified in Table 3.2-9 (see Section 3.2 of this SEIR). It is determined based upon building type and the area allotted to specific functions, as identified in the table. Any area that is calculated as part of the total floor area limitation is included in the gross floor area to determine the parking requirement. Neither the Project or the Alternative would have significant parking impacts.

Air Quality

Short-Term Construction Impacts: Regional

As with the proposed Master Plan Update Project, grading and demolition activities associated with the Alternative may result in significant short-term PM10 impacts and are expected to result in significant short-term NOx impacts. Sensitive receptors could be affected by these emissions increases. These short-term impacts would be reduced with proposed mitigation, but not to a level considered less than significant.

Long-Term Operational Impacts

In 2015, with the Alternative, Hoag is anticipated to have 1,343,238 sf of building space, the same as the Project. With the transfer to 150,000 sf from the Lower Campus to the Upper Campus, Hoag is projected to generate 25,365 daily vehicle trips resulting in 228,285 daily vehicle miles traveled. This represents a 6.6 percent reduction in trips and vehicle miles traveled with the Alternative when compared to the existing Master Plan; the proposed Master Plan Update Project would have a 16 percent reduction. If less development is reallocated, the

reduction in trips would also be less. Table 4-5 identifies the estimate of emissions from Hoag in 2015 with Alternative.

TABLE 4-5
YEAR 2015 HOAG EMISSIONS WITH PROJECT ALTERNATIVE

Source	Pollutant Emissions (lbs/day)					
	CO	VOC	NOx	PM10	PM2.5	SOx
Vehicular Trips	1,465.3	163.8	277.2	25.8	17.8	2.6
Natural Gas Consumption	4.2	1.1	25.4	0.0	0.0	0.0
On-site Electrical Generation	146.5	99.1	99.1	29.7	29.4	0.0
Total Future Emissions with Project Alternative	**1,616.0**	**263.9**	**401.6**	**55.6**	**47.2**	**2.6**

Notes: Assumes the full reallocation of 150,000 sf from the Lower Campus to the Upper Campus. Totals may not equal the sum of components due to rounding.

Source: Mestre Greve Associates 2007.

Table 4-6 identifies the net change in emissions that would occur at Hoag in 2015 with implementation of the Alternative. The SCAQMD thresholds are also presented. The Alternative would result in significant air impacts related to CO, VOC, and NOx, including potential human health implications associated with each of these pollutants.

TABLE 4-6
YEAR 2015 HOAG EMISSIONS INCREASE WITH PROJECT ALTERNATIVE

Scenario	Pollutant Emissions (lbs/day)					
	CO	VOC	NOx	PM10	PM2.5	SOx
Existing Conditions (2015)[a]	884.1	140.6	219.1	29.1	24.5	1.5
Alternative	1,616.0	263.9	401.6	55.6	47.2	2.6
Change in Emissions	**731.9**	**123.4**	**182.5**	**26.4**	**22.7**	**1.2**
SCAQMD Thresholds	550	55	55	150	55	150
Exceed SCAQMD Thresholds?	**Yes**	**Yes**	**Yes**	No	No	No

[a] Year 2015 vehicular emissions are assumed lower than Year 2005 vehicular emissions because higher emission vehicles would be phased out.

Notes: Assumes the reallocation of 150,000 sf from the Lower Campus to the Upper Campus. Totals may not equal the sum of components due to rounding.

Source: Mestre Greve Associates 2007.

Table 4-7 identifies the change in emissions associated with the Alternative compared to future conditions with currently approved (but not developed) square footage at Hoag. The Alternative would result in lower 2015 emissions than the currently approved (Final EIR No. 142) land uses. This difference is due primarily to a reduction in projected vehicle trips. However, the reduction would only occur with the reallocation of 150,000 sf from the Lower Campus to the Upper Campus. Lower reductions would occur with less reallocation. Transferring 150,000 sf to the Upper Campus would reduce the projected CO, VOC and NOx emission increases over the existing Master Plan by approximately 3 to 7 percent (compared to 6 to 15 percent for the proposed Master Plan Update Project). Therefore, the Alternative, when considered by itself, does not result in a significant impact. Although implementation of the Alternative would result in

lower emissions than the approved development, overall development of the Hospital Master Plan, even as modified by the Alternative, would result in significant air quality impacts due to the exceedance of the SCAQMD thresholds.

TABLE 4-7
FUTURE EMISSIONS EXISTING MASTER PLAN COMPARED TO PROJECT ALTERNATIVE

Condition	Pollutant Emissions (lbs/day)					
	CO	VOC	NOx	PM10	PM2.5	SOx
Year 2015 with Approved Land Use (Final EIR No. 142)	1,719.2	275.5	421.2	57.3	48.4	2.8
Year 2015 with Alternative	1,616.0	263.9	401.6	55.6	47.2	2.6
Difference	**-103.2**	**-11.5**	**-19.5**	**-1.8**	**-1.3**	**-0.2**
Lower Emission with Alternative?	Yes	Yes	Yes	Yes	Yes	Yes
SCAQMD Thresholds	550	55	55	150	55	150
Exceed SCAQMD Thresholds?	**Yes**	**Yes**	**Yes**	No	No	No

Notes: Assumes the reallocation of 150,000 sf from the Lower Campus to the Upper Campus. Totals may not equal the sum of components due to rounding.

Source: Mestre Greve Associates 2007.

Consistency with AQMP

Table 4-8 compares Hoag emissions with Alternative to 2020 emissions projected for the South Coast Air Basin (basin). Emissions associated with this scenario are less than 38 thousandths of a percent of the basin's emissions. The increase in emissions associated with the Alternative compared to existing development is not projected to exceed the SCAQMD thresholds of significance. As with the proposed Master Plan Update Project, this Alternative is consistent with the AQMP assumptions.

TABLE 4-8
PROJECT ALTERNATIVE EMISSIONS COMPARED TO REGIONAL EMISSIONS

Scenario	Pollutant Emissions (tons/day)					
	CO	VOC	NOx	PM10	PM2.5	SOx
Alternative	0.808	0.132	0.201	0.028	0.024	0.001
2020 SCAB	2,414	584	532	318	–	76
Project as % of SCAB	0.0335%	0.0226%	0.0377%	0.0087%	–	0.0017%

Source: Mestre Greve Associates 2007.

The increase in emissions associated with buildout of Hoag under the proposed Master Plan Update Project scenario or the Alternative scenario when compared to existing development are projected to exceed the SCAQMD thresholds of significance. This would also be the case for buildout of Hoag under the existing Master Plan. Note also that these thresholds are not necessarily an appropriate reference to determine the significance of project emissions. These thresholds are taken from the SCAQMD's *CEQA Air Quality Handbook* that states that the criteria "are consistent with the federal Clean Air Act definition of a significant source in an area classified as extreme for ozone." While it is correct that the thresholds are consistent as such, the *CEQA Air Quality Handbook* does not acknowledge such criteria was developed initially by

the USEPA to be applied to point source emissions (such as an industrial smokestack). Comparisons between emissions from an extreme point source and emissions from Hoag are inappropriate in this context. Emissions from the Hoag are primarily from motor vehicles traveling in the area and do not resemble emissions from industrial sources.

In spite of the original intent and application of SCAQMD's thresholds, the SCAQMD has recommended their application to emissions generated by a project, including vehicle emissions, and therefore, the change in emissions resulting from the Alternative is compared with them per the *CEQA Air Quality Handbook*. Since the increase in daily emissions of CO, VOC, and NOx from the Alternative would exceed the significance thresholds presented in the *CEQA Air Quality Handbook*, the buildout of Hoag under the Alternative development scenario is considered to have significant long-term impacts, including potential human health implications.

The Alternative would result in emissions reductions when compared with the existing Master Plan but would have fewer reductions than with the proposed Master Plan Update Project. The reduction in CO, VOC and NOx emissions with the Project are 2.4 times more than the reductions with the Alternative due to the greater reduction in vehicle trips. Table 4-9 identifies the emissions from Hoag for the Project and the Alternative. The Alternative would result in CO, VOC, and NOx emissions between 4.2 percent and 6.0 percent higher than emissions with the proposed Master Plan Update Project.

TABLE 4-9
PROJECT ALTERNATIVE EMISSIONS COMPARED TO PROPOSED MASTER PLAN UPDATE PROJECT

Scenario	Pollutant Emissions (lbs/day)					
	CO	VOC	NOx	PM10	PM2.5	SOx
Future With Proposed Master Plan Update Project	1,467.9	247.4	373.6	53.0	45.4	2.4
Future With Alternative	1,616.0	263.9	401.6	55.6	47.2	2.6
Increase With Alternative	**148.1**	**16.5**	**28.0**	**2.6**	**1.8**	**0.2**
Source: Mestre Greve Associates 2007.						

Noise

As addressed in Section 2.0, Project Description, the existing PC Text provide that mechanical equipment noise generated from Hoag not exceed 55 decibels (dB) at all Hoag property lines. As with the proposed Master Plan Update Project, this Alternative proposes the elimination of this noise restriction. Noise generated at Hoag would be governed by the City's Noise Ordinance except as otherwise provided in paragraphs 1 and 2 below.

1. The applicable noise standard at the Hoag property line adjacent to the loading docks shall be as follows:

	7 AM – 10 PM Daytime	10 PM – 7 AM Nighttime
Leq (15 min)	70 dBA	58 dBA

2. Within the loading dock area, delivery vehicles and the loading and unloading of delivery vehicles shall be exempt from any applicable noise standards.

Construction Activities

Generally, construction noise represents a short-term impact on ambient noise levels. Neither this Alternative nor the Master Plan Update Project proposes any specific construction projects. The City's Noise Ordinance exempts construction activities from the noise level limits during specific hours of the day. Noise-generating construction activities are permitted between the hours of 7:00 AM and 6:30 PM Monday through Friday, 8:00 AM to 6:00 PM on Saturdays, and at no time on Sundays or federal holidays. Construction activities are not proposed outside these hours. For both the Project and the Alternative, compliance with the City's Noise Ordinance is considered to result in no significant short-term noise impacts.

Vibration

Although no site-specific development projects are proposed as a part of this Alternative, this SEIR acknowledges that the future demolition of on-site buildings could generate perceptible vibrations at adjacent on-site buildings. Many adjacent on-site buildings would remain operational during demolition and construction activities and could contain equipment whose operation could be disturbed by vibration. As with the proposed Master Plan Update Project, potential vibration impacts associated with this Alternative would be considered a significant impact.

Project Traffic Noise

Impacts from increases in traffic noise levels due to the Alternative were estimated using the traffic projections presented in the in the Linscott, Law & Greenspan traffic study (see Appendix C). To estimate noise level changes due to the Alternative, the "with Alternative" traffic volumes are compared to the "without Alternative" traffic volumes. This analysis is performed below for two scenarios: Year 2015 and Year 2025. Traffic CNEL changes with the Alternative are identified in Table 4-10. Projected changes in traffic noise levels over existing conditions are presented along with the changes resulting from the implementation of the Project for the two analysis years. Only roadway segments projected to experience noise level increases of 0.5 dB or greater associated with the Alternative are presented in the table. Traffic noise level increases due to the Alternative of 1 dB or more, and over existing conditions of 3 dB or more, are shown in ***bold italics***.

The distances to the future 60, 65, and 70 CNEL contours with the Alternative are presented in Table 4-11. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. These are worst-case noise levels; the highest traffic volume projected for years 2015 and 2025 were used to estimate the future noise level. The contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels.

TABLE 4-10
PROJECT ALTERNATIVE TRAFFIC NOISE LEVEL CHANGES

Roadway Segment	Change in 2015		Change in 2025	
	Over Existing	Due to Alternative	Over Existing	Due to Alternative
17th Street				
West of Superior Avenue	0.6	0.6	1.1	-0.1
East of Superior Avenue	0.6	0.6	0.6	-0.1
16th Street				
West of Superior Avenue	0.6	0.6	0.2	-0.1
Industrial Way				
East of Superior Avenue	0.6	0.6	0.2	-0.1
Hospital Road				
East of Superior Avenue	0.1	0.7	1.7	0.0
West of Hoag Drive	-0.3	0.5	1.3	0.0
East of Hoag Drive	-1.0	-0.6	-0.1	0.3
West of Newport Boulevard	-1.3	-0.8	-0.2	0.3
West Coast Highway				
West of Orange Street	0.4	-0.5	0.5	0.0
East of Orange Street	0.3	-0.5	0.5	0.0
East of Hoag Drive	1.8	***1.1***	2.4	-0.2
West of Newport Boulevard SB Offramp	1.6	***1.0***	2.2	-0.2
West of Riverside Avenue	-0.2	-0.7	0.5	0.0
East of Riverside Avenue	0.1	-0.4	0.7	0.0
Via Lido				
East of Newport Boulevard	1.2	***1.0***	1.4	0.0
Orange Street				
South of West Coast Highway	-0.9	-2.4	-1.4	0.0
Prospect Street				
North of West Coast Highway	-2.3	-1.3	-0.9	0.0
South of West Coast Highway	0.5	-1.3	1.3	0.0
Placentia Avenue				
North of Hospital Road	0.7	0.8	1.8	0.0
Superior Avenue				
North of 17th Street	0.7	0.7	1.9	0.0
South of 17th Street	0.7	0.7	0.2	0.0
North of 16th Street/Industrial Way	0.7	0.7	0.9	0.0
South of 16th Street/Industrial Way	0.7	0.7	0.8	0.0
North of Placentia Avenue	1.6	0.7	0.1	0.0
North of West Coast Highway	-0.7	-1.2	-2.2	0.0
Balboa Boulevard				
South of West Coast Highway	0.0	-1.1	-0.5	0.0
Hoag Drive				
South of Hospital Road	***4.0***	***3.5***	***5.8***	0.5
North of West Coast Highway	0.7	-2.3	***3.6***	-1.0

TABLE 4-10 (Continued)
PROJECT ALTERNATIVE TRAFFIC NOISE LEVEL CHANGES

Roadway Segment	Change in 2015		Change in 2025	
	Over Existing	Due to Alternative	Over Existing	Due to Alternative
Newport Boulevard				
South of Hospital Road	-0.7	-0.7	0.1	-0.1
North of Via Lido	-1.1	-0.8	-0.4	0.0
South of Via Lido	-1.2	-0.7	-0.3	0.0
Riverside Avenue				
North of West Coast Highway	-1.2	-1.0	-0.2	0.0
Tustin Avenue				
North of West Coast Highway	***3.4***	***1.6***	***3.5***	0.0
Bay Shore Drive				
South of West Coast Highway	-2.0	-2.1	-5.9	0.0
Bayside Drive				
North of East Coast Highway	***4.8***	***1.0***	***5.6***	0.0

Notes: Numbers in ***bold italics*** denote at least a 1.0 dB increase due to the project or at least a 3.0 dB increase over existing conditions.

Source: Mestre Greve Associates 2007.

TABLE 4-11
FUTURE NOISE LEVELS WITH PROJECT ALTERNATIVE

Roadway Segment	CNEL at 100 ft.[a]	Distance To CNEL Contour[a] (feet)		
		70 CNEL	65 CNEL	60 CNEL
17th Street				
West of Superior Avenue	61.9	RW	62	134
East of Superior Avenue	64.4	42	91	195
16th Street				
West of Superior Avenue	56.3	RW	RW	56
Industrial Way				
East of Superior Avenue	55.4	RW	RW	49
Hospital Road				
East of Superior Avenue	58.9	RW	39	85
West of Hoag Drive	58.1	RW	35	75
East of Hoag Drive	59.9	RW	46	98
West of Newport Boulevard	59.9	RW	46	98
West Coast Highway				
West of Orange Street	69.0	86	186	400
East of Orange Street	69.0	86	186	400
East of Hoag Drive	66.2	56	121	261
West of Newport Boulevard SB Offramp	66.2	56	121	261
West of Riverside Avenue	67.1	64	139	299
East of Riverside Avenue	66.7	60	129	278
Via Lido				
East of Newport Boulevard	59.3	RW	41	89

TABLE 4-11 (Continued)
FUTURE NOISE LEVELS WITH PROJECT ALTERNATIVE

Roadway Segment	CNEL at 100 ft.[a]	Distance To CNEL Contour[a] (feet)		
		70 CNEL	65 CNEL	60 CNEL
Orange Street				
South of West Coast Highway	47.0	RW	RW	RW
Prospect Street				
North of West Coast Highway	49.4	RW	RW	RW
South of West Coast Highway	46.2	RW	RW	RW
Placentia Avenue				
North of Hospital Road	63.1	34	74	160
Superior Avenue				
North of 17th Street	60.0	RW	47	100
South of 17th Street	64.6	43	93	201
North of 16th Street/Industrial Way	64.0	40	86	186
South of 16th Street/Industrial Way	64.0	40	86	185
North of Placentia Avenue	64.0	40	85	184
North of West Coast Highway	63.8	38	83	178
Balboa Boulevard				
South of West Coast Highway	60.1	RW	47	101
Hoag Drive				
South of Hospital Road	58.7	RW	38	82
North of West Coast Highway	55.5	RW	RW	50
Newport Boulevard				
South of Hospital Road	68.9	85	183	395
North of Via Lido	65.2	48	103	222
South of Via Lido	64.1	41	88	189
Riverside Avenue				
North of West Coast Highway	58.1	RW	35	75
Tustin Avenue				
North of West Coast Highway	52.9	RW	RW	34
Bay Shore Drive				
South of West Coast Highway	50.3	RW	RW	RW
Bayside Drive				
North of East Coast Highway	54.2	RW	RW	41

[a] From centerline.
RW: Contour falls within right-of-way.

Source: Mestre Greve Associates 2007.

Table 4-10 identifies that noise levels are expected to increase by 1 dB or more along six roadway segments (one more than with the proposed Master Plan Update Project). They are West Coast Highway west of the Newport Boulevard southbound off-ramp; West Coast Highway east of Hoag Drive (not affected by the Project); Via Lido east of Newport Boulevard; Hoag Drive south of Hospital Road; Tustin Avenue north of West Coast Highway; and Bayside Drive north of East Coast Highway. Discussed below are conditions along each of these road segments to determine if the City's applicable noise thresholds of significance would be exceeded at any sensitive receptors are discussed below.

West Coast Highway west of the Newport Boulevard southbound offramp. Hoag is located north of this road segment. The future 65 CNEL noise contour along this road segment is projected to extend 121 feet (2 more feet than the Project) from the centerline. There are residences located on the southern side of West Coast Highway approximately 120 feet from the centerline; a 10-foot-high block wall separates residences from West Coast Highway and provides approximately 9 dB of noise reduction. Traffic noise levels at the residences would not exceed the City's 65 CNEL outdoor noise standard. Based on the thresholds of significance set forth in this SEIR, as with the proposed Master Plan Update Project, the Alternative's contribution to changes in traffic noise levels along this road segment is less than significant.

West Coast Highway east of Hoag Drive. The proposed Master Plan Update Project would not affect this roadway segment. As noted above, the future 65 CNEL noise contour along this road segment is projected to extend 121 feet from the centerline. The existing 10-foot-high block wall provides approximately 9 dB of noise reduction to residences on the southern side of West Coast Highway. Traffic noise levels at the residences would not exceed the 65 CNEL outdoor noise standard. Commercial uses are located to the north and south of the road segment. Based on their distance from the centerline, all commercial buildings along this segment would be expected to provide adequate outdoor-to-indoor noise reduction so that interior noise levels due to traffic would not exceed the applicable standards. The Alternative's traffic would not result in a significant noise impact along this road segment.

As with the proposed Master Plan Update Project, the Alternative would have a less than significant impact to the road segments identified below. There would be no change in noise contours.

- Via Lido east of Newport Boulevard
- Hoag Drive south of Hospital Road
- Tustin Avenue north of West Coast Highway
- Bayside Drive north of West Coast Highway

Table 4-12 summarizes the difference in changes in traffic noise CNEL levels between the proposed Master Plan Update Project and the Alternative. A positive number indicates that the Alternative would result in a higher noise level than the Project. A negative number indicates that the Project would result in a lower noise level than the Alternative. Data is presented for roadway segments with projected noise level difference of 0.1 dB or more.

There is little difference in the projected traffic noise levels with the Project or Alternative. The greatest differences occur along Hoag Drive. This is primarily due to the low level of traffic on Hoag Drive. However, traffic noise levels along Hoag Drive would be less than 65 CNEL (just exceed 60 CNEL). The greatest difference in noise levels along Hoag Drive would be 0.6 dB in year 2025; this is an imperceptible difference. Traffic noise CNEL differences along all other roadway segments would 0.4 dB or less with the Project compared to the Alternative.

TABLE 4-12
COMPARISON OF TRAFFIC NOISE LEVELS FOR THE PROJECT ALTERNATIVE AND MASTER PLAN UPDATE PROJECT (DB)

Roadway Segment	2015	2025
19th Street		
West of Newport Avenue	0.1	0.1
Hospital Road		
East of Superior Avenue	-0.1	0.0
West of Hoag Drive	-0.1	0.0
East of Newport Boulevard	-0.1	0.0
West Coast Highway		
East of Balboa Boulevard/Superior Avenue	0.1	0.1
West of Hoag Drive	-0.2	-0.2
East of Hoag Drive	0.2	0.4
West of Newport Boulevard SB Off-Ramp	0.0	0.1
West of Riverside Avenue	0.0	0.1
East of Riverside Avenue	0.1	0.1
West of Bay Shore Drive/Dover Drive	0.1	0.1
East of Bay Shore Drive/Dover Drive	0.0	0.1
West of Bayside Drive	0.0	0.1
West of Marine Drive/Jamboree Road	0.1	0.1
Placentia Avenue		
North of Superior Avenue	-0.1	0.0
South of Superior Avenue	-0.1	0.0
Hoag Drive		
South of Hospital Road	-0.2	0.0
North of West Coast Highway	-0.2	0.6
Source: Mestre Greve Associates 2007.		

Cumulative Traffic Noise

Cumulative traffic noise impacts are assessed by comparing traffic noise CNEL increases to existing conditions. This provides the forecasted traffic noise level increases due to the Alternative in addition to other projects and general growth anticipated for the area. As previously identified on Table 4-11, 4 roadway segments are projected to have traffic noise level increases of 3 dB or more when compared to existing conditions. They are the same segments affected by the proposed Master Plan Update Project. As with the Project, this Alternative is expected to result in a 1 dB or greater increase along all these segments except Hoag Drive north of West Coast Highway (no contribution). Because the noise standards would not be exceeded, the Alternative's contribution would not result in a significant cumulative impact along these road segments.

On-site Activities and Land Uses

The Alternative would allow for the reallocation of up to 150,000 sf of development from the Lower Campus to the Upper Campus. However, no specific projects are proposed at this time. Therefore, a detailed analysis of impacts from future on-site activities is not included in this SEIR. However, the SEIR has assessed four existing on-site noise sources: grease pit cleaning, loading dock activities, mechanical equipment, and the cogeneration facility.

Grease Pit Cleaning

As previously addressed, the City considers grease pit cleaning to be a property maintenance activity. Property maintenance activities are exempt from the Noise Ordinance standards if they occur between 7:00 AM and 6:30 PM Monday through Friday and between 8:00 AM and 6:00 PM on Saturday; such activities are not permitted on Sunday or federal holidays. The Applicant has identified the time of grease pit cleaning would be limited to a Saturday between the hours of 11:00 AM and 3:00 PM. However, because this property maintenance activity is exempt from the City's Noise Ordinance, no significant noise impact would occur for the Project or the Alternative.

Mechanical Equipment

Buildout of the Hoag Master Plan under either the project Alternative or the proposed Master Plan Update assumptions may require additional heating, ventilation, and air conditioning (HVAC) equipment that could include roof-mounted equipment. Final EIR No. 142 set a noise level limit for mechanical equipment of 55 dBA. This noise level limit for mechanical equipment is included in the Development Agreement between the City and Hoag. This limit is being exceeded for the existing mechanical equipment. As noted in Section 3.4 of this SEIR, Hoag has initiated plans to revamp the HVAC system. These modifications would be implemented for both the Alternative and the proposed Master Plan Update Project. Because no specific projects are proposed as a part of this Alternative, it is not known what new HVAC equipment, if any, may be required and an analysis of the potential noise impacts from this equipment is precluded. With proper equipment selection, location and potential incorporation of noise reduction features, it is expected that new HVAC equipment would meet the revised noise level standards proposed as a part of the Alternative and Master Plan Update Project scenarios. However, until actual equipment can be tested, new HVAC equipment could generate noise levels in excess of the revised noise levels. This would be considered a significant impact for both the Project and the Alternative.

Loading Dock Area Activities

Existing loading dock activities exceed the Noise Ordinance limits on a regular basis. By increasing the development at the Upper Campus, the Alternative could result in an additional increase in activity at the loading dock. However, this is not expected to be a substantial increase when compared to buildout of Hoag consistent with the existing Master Plan and the proposed Master Plan Update. Noise generated by the loading dock has not changed substantially from the noise levels measured in 1991. However, activities in the loading dock area currently and will continue to exceed the noise limits contained in the Noise Ordinance. Both this Alternative and the proposed Master Plan Update Project propose an exemption to address this issue. Within the loading dock area, delivery vehicles and the loading and unloading of delivery vehicles would be exempt from any applicable noise standards. For both the Project and the Alternative, loading dock area activities are considered to be a significant unavoidable noise impact.

Cogeneration Facility

The measured noise levels from the cogeneration facility equipment comply with the City's Noise Ordinance, and have ranged from 46.1 dBA to 49.8 dBA at the upper floor of the nearest residence. These levels are below the City's Noise Ordinance limit of 50 dBA for nighttime levels at sensitive receptors. The addition of the fourth cooling tower is expected to raise the overall noise level to between 46.7 and 50.4 dBA. The operation of a fourth cooling tower is not part of the Alternative because the cogeneration facility is permitted and no further approvals from the City are required for this facility to operate. Therefore, the operation of the cogeneration plant becomes a Noise Ordinance compliance issue. That is, the City may need to take measurements once the fourth cooling tower is operational and determine if it complies with the Noise Ordinance. Should the City determine the cogeneration facility is not in compliance, Hoag would need to correct the situation to maintain compliance with the Noise Ordinance limits. Further, it would become a Development Agreement issue because the Development Agreement incorporates the Noise Ordinance. Under both the Project and Alternative scenarios, noise impacts related to the cogeneration facility would be less than significant.

Traffic Noise Impacts on On-site Land Uses

As discussed previously, the Alternative would only allow for the reallocation of approved development from the Lower Campus to the Upper Campus; no specific projects are proposed. Therefore, a detailed analysis of the potential noise impacts on the uses developed under the Alternative development scenario is precluded. Site-specific projects would be required to comply with the City's General Plan Noise Standards. The standards applicable to Hoag are the outdoor standard of 65 CNEL, the interior 45 CNEL standard for hospital uses (e.g., patient rooms), and 50 CNEL for office uses. The outdoor 65 CNEL standard is only applicable to outdoor patio areas where persons would be expected to congregate for extended periods.

In summary, the proposed changes associated with this Alternative could eventually result in higher noise levels at the nearby residences (compared to existing conditions). Mitigation measures are recommended and it has been determined that no other feasible mitigation exists that would reduce impacts from the loading dock area to below the limits contained in the City's Noise Ordinance. This would be the case for both this Alternative and the proposed Master Plan Update Project. Modification of the Development Agreement, as proposed, would allow noise to exceed the Noise Ordinance criteria in the vicinity of the loading dock area, even after application of the feasible mitigation measures; therefore, the proposed changes must be identified as resulting in significant and unavoidable adverse impacts.

Aesthetics and Visual Resources

The Alternative would retain more of the previously approved but not constructed square footage on the Lower Campus. As with the proposed Master Plan Update Project, site-specific development is not assumed as a part of this Alternative. As with the Project, no modifications to the development criteria adopted in conjunction with the 1992 Master Plan are proposed. Because no specific development is proposed, no specific building designs, locations, or features can be evaluated. Similar to the Project, this Alternative assumes the potential effects associated with development consistent building height restrictions.

Views from On the Site

As with the proposed Master Plan Update Project, this Alternative would have greater intensity of development on the Upper Campus but less than proposed by the Project. As noted for the Project, changes to views associated with the reallocation of development associated with this Alternative would not be considered a significant impact.

Off-site Views of Development

As with the Project, it likely that some Upper Campus facilities would be demolished to allow for intensification of this area. Overall, this would not substantially change the character of the site. As previously indicated, Final EIR No. 142 addressed development of Hoag to the maximum allowable heights; therefore, the worst-case impacts were considered. Even with a transfer of square footage to the Upper Campus, impacts would not be greater than those impacts addressed in Final EIR No. 142 because the development criteria would not be modified and the overall visual character of the Upper Campus would not be substantially altered. However, under the Alternative, less square footage would be reallocated from the Lower Campus to the Upper Campus than the amount associated with the proposed Master Plan Update Project. As such, intensification of the Upper Campus would be less than associated with Project. No significant impacts would be anticipated.

With respect to the Lower Campus, the existing Master Plan allows for more development on the Lower Campus than has been constructed. Under this Alternative, less square footage would be transferred to the Upper Campus. Because this Alternative would be required to comply with the existing development criteria, including height restrictions, new development would avoid or minimize potential visual impacts to adjacent residents or park visitors. Overall, the visual character of the site would not be substantially different. No significant impacts on aesthetic resources are expected with either the Project or the Alternative.

Shade and Shadow and Lighting

The analysis in Final EIR No. 142 noted that the Master Plan would result in greater morning shade and shadow on the adjacent condominium development because of the expansion of the Tower and Midrise Zones. The analysis was conducted using a worst-case condition where both the Tower and Midrise Zones were built out to their maximum allowable height. Final EIR No. 142 concluded that this would not be considered a significant impact of the Master Plan because of the short duration during the year, the shading effects only affect a portion of the structures during the early morning hours, and it would not substantially limit solar energy access to the structures. The Alternative would have similar and fewer shade and shadow effects when compared to the proposed Master Plan Update Project. However, since the Alternative would not alter the maximum allowable height of the buildings at Hoag, these potential impacts would not be different from what was previously addressed with the existing Master Plan and the proposed Master Plan Update Project.