# SECTION 3.0
# EXISTING CONDITIONS, PROJECT IMPACT ANALYSIS, MITIGATION PROGRAM, CUMULATIVE IMPACTS, AND LEVEL OF SIGNIFICANCE AFTER MITIGATION

## 3.1 INTRODUCTION

This Supplemental EIR (SEIR) provides analysis of impacts for those environmental topics where it was determined that the proposed project could result in "potentially significant impacts," as identified in the Initial Study included in Appendix A. Each topical section (Sections 3.1 through 3.5) includes the following information: description of the existing setting; identification of thresholds of significance; analysis of potential project-specific and cumulative impacts; identification of a mitigation program, if required, to reduce the identified impacts; and, identification of the level of significance of impacts after mitigation, including unavoidable significant adverse impacts, as applicable.

## 3.2 EXISTING CONDITIONS

CEQA Guidelines §15125(a) states that, "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant..." As a part of the CEQA analysis provided in this Hoag Master Plan Update Supplemental EIR, the SEIR addresses the proposed Master Plan Update Project's consistency with applicable policies and programs.

## 3.3 THRESHOLDS OF SIGNIFICANCE

The State CEQA Guidelines §15064.7 addresses thresholds of significance and encourages each public agency to develop thresholds of significance through a public review process. Subsequently, these thresholds must be published and adopted by agency ordinance, code, or regulation. The City of Newport Beach (City) uses thresholds of significance based primarily on the State CEQA Guidelines Appendix G. For each topical issue in this section, the impact analysis is formatted to analyze the potential impacts of the project related to each identified threshold of significance.

## 3.4 PROJECT AND CUMULATIVE IMPACTS

As stated in the State CEQA Guidelines §15064:

> In evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project.
>
> (1) A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project. Examples of direct physical changes in the environment are the dust, noise, and traffic of heavy equipment that would result from construction of a sewage treatment plant and possible odors from operation of the plant.

(2) An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment. For example, the construction of a new sewage treatment plant may facilitate population growth in the service area due to the increase in sewage treatment capacity and may lead to an increase in air pollution.

(3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable...

A cumulative impact "...refers to two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts... The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (source: CEQA Guidelines §15355).

The State CEQA Guidelines §15130 states that an EIR "shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable...a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts..."

## 3.5 MITIGATION PROGRAM

The mitigation program identified to reduce potential project impacts consists of Project Design Features, Standard Conditions and Requirements, and Mitigation Measures. By including all these components of the Mitigation Program, they would all be tracked in the Mitigation Monitoring and Reporting Program required for the project. The components of the Mitigation Program are described below.

- *Project Design Features.* Project Design Features are specific design elements proposed by the Applicant that have been incorporated into the project to prevent the occurrence of, or reduce the significance of, potential environmental effects. Because Project Design Features (PDFs) are incorporated into the project, they do not constitute mitigation measures as defined by CEQA. However, they are identified in the mitigation section for each topical issue and will be included in the mitigation monitoring program to be developed for and implemented as a part of the proposed Master Plan Update Project because in their absence a significant impact would occur.

- *Standard Conditions and Requirements.* Existing requirements and standard conditions are based on local, state, or federal regulations or laws that are frequently required independently of CEQA review and also serve to offset or prevent specific impacts. Typical standard conditions and requirements include compliance with the provisions of the Uniform Building Code, South Coast Air Quality Management District Rules, local agency fees, etc. Additional conditions may be imposed on the project by the City during the approval process, as appropriate.

- *Mitigation Measures.* Where a potentially significant environmental effect has been identified and is not reduced to a level considered less than significant through the application of PDFs and Standard Conditions and Requirements, project-specific mitigation measures have been recommended.

As a part of the previously certified Final EIR No. 142 for the *Hoag Hospital Master Plan*, a Mitigation Program was adopted. This Mitigation Program has been modified, as necessary, based on the assessment and implementation of site-specific developments set forth in the Master Plan. Where mitigation set forth in Final EIR No. 142 is still applicable to the proposed Master Plan Update project, this mitigation is incorporated into this Supplemental EIR. Additionally, minor modifications to Final EIR No. 142 mitigation measures are proposed to reflect the current status of the project and some of the mitigation measures in Final EIR No. 142 have been implemented and are no longer applicable. As applicable, the Mitigation Program for each environmental topic provides strikeout text to show deleted wording and italic text to show wording that has been added.

For projects that require issuance of a building permit by the California Office of Statewide Health Planning and Development (OSHPD), the City has limited jurisdiction in the review and approval of development plans. As such, while OSHPD may have building permit authority over certain structures at Hoag, the City retains ultimate responsibility for ensuring compliance with and the implementation of the Mitigation Program. A comprehensive list of measures applicable to the proposed project is provided as Section 6.0 of this Supplemental EIR.

It should be noted that any PDF or mitigation measure and timing thereof, which will have the same or superior result and will have the same or superior effect on the environment, may be approved and/or substituted at the discretion of the City. The City of Newport Beach Planning Department, in conjunction with any appropriate agencies or City departments, shall determine the adequacy of any proposed "environmental equivalent/timing" and, if determined necessary, may refer said determination to the Planning Commission and City Council. Any costs associated with information required in order to make a determination of equivalency and timing shall be borne by the applicant.

# 3.1 LAND USE AND RELATED PLANNING PROGRAMS

This Supplemental EIR (SEIR) section describes the existing land uses on the project site and in the surrounding project area. On-site and off-site land uses and the potential land use compatibility issues associated with the Master Plan Update Project have been evaluated and addressed. This section also addresses the relationship of land use changes to relevant planning policies. The information in this SEIR section is based on Final EIR No. 142 (LSA 1992), field reconnaissance, and the review of aerial photography and relevant planning documents as identified herein.

## 3.1.1 SUMMARY OF FINAL EIR NO. 142

Final EIR No. 142 evaluated land use impacts on the basis of whether the project "conflicts with adopted environmental plans and goals of the community; disrupts or divides the physical arrangement of an established community; and converts prime agricultural land to a non-agricultural use or impairs the agricultural productivity of prime agricultural land." In addition, Final EIR No. 142 indicated that "a project that degrades property values to a point of physical deterioration of the individual structure and/or residential or commercial development is considered a significant land use impact." On the basis of these criteria, it was determined that the Master Plan Project would result in significant, unavoidable impacts on the condominiums located adjacent to the western boundary of the Upper Campus. The placement of the hospital buildings adjacent to the existing condominiums, in combination with shade and shadow and noise impacts, were considered significant and unavoidable impacts of the Master Plan Project. Final EIR No. 142 states:

> *This perceived impact is based on the significant difference in scale and height of the residential structures, as compared to the proposed Hospital structures. Other issues that contribute to this perceived significant land use impact include: the potential for (1) visual impacts; (2) increase in vehicle use of the service road that runs parallel to the common property line at the west side of the Upper Campus; and (3) increase in noise related to Hospital equipment….the above identified Upper Campus land use impacts are in most cases circumstances that currently exist…and individually do not represent significant unavoidable adverse impacts. However, with development of the Master Plan these impacts are expected to increase incrementally and, in combination, are considered a significant unavoidable adverse land use impact to the residential units located adjacent to and west of the Upper Campus (page 4-59).*

Final EIR No. 142 found the project consistent with the applicable land use designations and planning policies. The project required a zone change for the Lower Campus from an Unclassified District to a Planned Community District; Final EIR No. 142 noted that "this change does not represent a significant impact due to the fact that the land uses proposed in the PCDP [Planned Community Development Plan] and District Regulations are consistent with the existing General Plan designation and therefore, are consistent with the unclassified district designation."

Final EIR No. 142 also concluded that "development of the Master Plan facilities is not expected to reduce the property values of residential units located in the general project vicinity to a level of physical deterioration…the project does not represent a significant impact to property values."

## 3.1.2 EXISTING CONDITIONS

### Existing On-site Land Uses

As addressed in Section 2.0, Project Description, Hoag is divided into the 17.57-acre Upper Campus and the 20.41-acre Lower Campus (Exhibit 2-4). As depicted on Exhibit 3.1-1, the Upper Campus includes the following facilities:

- Two parking structures and surface parking lots (#1, #10)[1]
- James Irvine Surgery Center (#2)
- Emergency Generator Facilities/Power Plant (#3)
- Hoag Hospital (#9)
  - Ancillary Building (#4)
  - Chemical Dependency Center (#7)
- West Tower (#5)
- Hoag Heart and Vascular Institute (adjacent to #5)
  - Cardiovascular Rehabilitation
  - Congestive Heart Failure Program
  - Pacemaker and Arrhythmia
  - Stress Lab
  - Vascular Lab
- North Tower (#6)
- Sue and Bill Gross Women's Pavilion (#8)

The main entrance (signalized intersection) and the secondary entrance to the Upper Campus are provided along Hospital Road, which serves as the northern boundary of the Upper Campus. Primary vehicular access to the Lower Campus occurs at West Coast Highway/Hoag Drive; West Coast Highway serves as the southern boundary of the Lower Campus. The Lower Campus can also be accessed internally to the site from Hospital Road.

The Lower Campus includes the following facilities:

- Patty and George Hoag Cancer Center (#11)
- One parking structure and surface parking lots (#12 and #17)
- Hoag Conference Center (#13)
  - Business Services
  - Community Outreach
  - Personnel Services
- Former Childcare Center building (#14)
- Cogeneration Plant (#15)

[1] Refers to notations on Exhibit 3.2-1.


## Legend

1. North Parking Structure
2. James Irvine Surgery Center
3. Power Plant
4. Ancillary Building
5. West Building
6. North Building
7. Chemical Dependency Center
8. Women's Pavilion
9. Original 1952 Building
10. South Parking Structure
11. Cancer Center
12. Conference Center Parking Structure
13. Conference Center
14. Former Childcare Center
15. Cogeneration Plant
16. Childcare Center Site
17. Surface Parking

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# Existing Land Uses

Exhibit 3.1-1

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Hoag Hospital

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- Kathryn C. Fishback Childcare Center (for Hoag employees) (#16)

**Surrounding Land Uses**

Hoag is located in the West Newport Mesa area of the City of Newport Beach. West Newport Mesa includes a mix of public, residential, office, retail, and industrial uses. Hoag is a major activity center that has generated a strong market for the development of supporting uses such as medical offices, convalescent and care facilities, and pharmacies.

Hoag's Upper Campus is generally bound by the following land uses (Exhibit 2-4):

***North***

- Hospital Road
- Newport Lido Towers (medical buildings affiliated with Hoag) north of Hospital Road
- Medical office, administrative, and financial uses north of Hospital Road
- Assisted living complex north of Hospital Road

***South***

- Lower Hoag Campus

***East***

- Newport Boulevard
- Residential and retail uses east of Newport Boulevard

***West***

- Villa Balboa Condominiums and The Versailles at the Bluff Condominiums
- Superior Avenue, west of the condominiums
- Additional multi-family development west of Superior Avenue

The Lower Campus is generally bound by the following land uses (Exhibit 2-4):

***North***

- Villa Balboa Condominiums and The Versailles at the Bluff Condominiums
- Upper Hoag Campus
- Sunset View Park, a consolidated and a linear park that extends along much of the northern boundary of the Lower Campus

***South***

- West Coast Highway
- Residential uses within Balboa Cove and Newport Beach Townhouses south of West Coast Highway within West Newport (multi-family residential and low density residential)

***East***

- Newport Boulevard and Newport Boulevard off-ramp to West Coast Highway
- Retail commercial development fronts the east side of Newport Boulevard, with residential development further to the east

***West***

- Superior Avenue (approximately 700 feet west of the Lower Campus)
- Open space and multi-family residential units west of Superior Avenue

## Related Planning Programs

Land use issues addressed in this section include the City of Newport Beach's related planning programs that govern the existing and future conditions on the Hoag. The following applies to development in and around the site: *City of Newport Beach General Plan*, *City of Newport Beach Planned Community Development Criteria and District Regulations for Hoag Hospital* (PC Text), and the Local Coastal Program. The discussion below addresses these ongoing programs.

### *Newport Beach General Plan*

The *City of Newport Beach General Plan* is the long-range guide for growth and development in the City. On July 25, 2006, the General Plan was adopted and the Final EIR was certified by the Newport Beach City Council. At the General Municipal Election held on November 7, 2006, the City Electorate approved a measure related to City Charter Section 423 (often referred to as the "Greenlight Initiative"), which required Electorate approval of any major amendment to the General Plan.

A general plan functions as a guide for the type of community that is desired for the future and provides the means to achieve it. The *City of Newport Beach General Plan* contains the following ten elements: Land Use; Harbor and Bay; Housing; Historical Resources; Circulation; Recreation; Arts and Cultural; Natural Resources; Safety; and Noise. Goals and policies of the Newport Beach General Plan that are relevant to the proposed Master Plan Update Project are discussed in the respective sections of this SEIR, with the exception of the Land Use Element, which is addressed below. Goals and policies set forth in the Housing Element, Harbor and Bay Element, and Conservation of Natural Resources Element are not applicable to the issues addressed in this SEIR.

#### Land Use Element

The General Plan Land Use Element presents goals and policies pertaining to how existing development is to be maintained and enhanced and how new development is to be implemented. The Land Use Element focuses on how population and employment growth can be strategically inserted to the City's distinguishing and valued qualities.

The Land Use Element has developed goals and policies that are applicable to the proposed Master Plan Update Project. Hoag is designated as "Private Institutions." The Private Institutions designation is intended to provide for privately owned facilities that serve the public, including places for religious assembly, private schools, health care facilities, cultural institutions, museums, yacht clubs, congregate homes, and comparable facilities. The Upper Campus has a development limit of 765,349 square feet (sf) and the Lower Campus has a development limit of 577,889 sf.

The Land Use Element also contains goals and policies that are applicable to the proposed Master Plan Update Project. Table 3.1-1 later in this section identifies these goals and policies and provides a project consistency analysis.

### *Newport Beach Zoning Code*

Hoag is designated as a Planned Community (PC) District. The purpose of the Hoag PC District is to provide a method whereby property may be classified and developed for hospital-related uses. The specifications of the PC District are intended to provide land use and development standards that support the proposed uses while ensuring that there is compliance with the intent of all applicable regulatory codes. The PC Text has been developed in accordance with the Newport Beach General Plan.

The PC District includes district regulations and a development plan for both the Upper and the Lower Campuses of Hoag. In general, over the long term, the Upper Campus would become oriented primarily towards emergency, acute, and critical care (predominantly inpatient) uses and the Lower Campus will be developed with predominantly outpatient uses, residential care, and support services.

Whenever the regulations contained in the PC Text conflict with the regulations of the *Newport Beach Municipal Code*, the regulations contained in the PC Text take precedence (*Planned Community Development Criteria and District Regulations for Hoag Hospital*). The Municipal Code regulates development when such regulations are not provided within the PC Text. All development within the PC District is also required to comply with all provisions of the *California Building Code* and other governing building codes.

### *Permitted and Prohibited Uses*

As set forth in the PC Text, the following regulations apply to all development at Hoag. The uses listed are not exhaustive; other hospital-related uses which fit into the permitted use categories are allowed by definition.

#### Lower Campus

#### *Permitted Uses*

A. Hospital facilities, including, but not limited to:

Outpatient Uses

Antepartum Testing; Cancer Center; Skilled Nursing; Rehabilitation; Surgery Center; Clinical Center; Day Hospital; Back and Neck Center; Biofeedback; Breast Imaging Center; Dialysis; EEG/EMG/NICE Laboratory; First Aid Center; Fertility Services; Gastrointestinal (G.I.) Laboratory; Magnetic Resonance Imaging; Nuclear Medicine; Occupational Therapy; Pediatrics; Pharmacy; Physical Therapy; Pulmonary Services; Radiation Therapy; Respiratory Therapy; Sleep Disorder Center; Speech Therapy; Ultrasound; Urgent Care.

Administration

Admitting; Auxiliary Office; Business Offices; Information Desk; Registration; Patient Relations; Social Services.

Support Services

Employee Child Care; Health Education; Power/Mechanical/Auxiliary Support and Storage; Food Services; Cashier; Chapel/Chaplaincy Service; Conference Center; Dietitian; Gift Shop; Laboratory; Medical Library; Medical Records; Pharmacy; Parking Facilities;[2] Engineering/Maintenance; Shipping/Receiving; Microwave, Satellite, and Other Communication Facilities.

Residential Care

Substance Abuse; Mental Health Services; Extended Care; Hospice Care; Self or Minimal Care; Congregate Care.

Medical/Support Offices

B. Methane gas flare burner, collection wells, and associated system components.

C. Accessory uses normally incidental to hospital development.

D. Temporary structures and uses, including modular buildings.

***Prohibited Uses***

Emergency room; heliport; conversion of mechanical or structural spaces to uses that allow general or routine occupancy or storage.

**Upper Campus**

***Permitted Uses***

A. Hospital facilities, including, but not limited to:

Inpatient Uses

Critical Care; Emergency Department; Birthing Suites; Cardiology; Cardiac Care Unit; Intensive Care Unit; Mother/Baby Unit; Surgery; Laboratory; Pharmacy; Patient Beds

Outpatient Services

As allowed on the Lower Campus

Administration

As allowed on the Lower Campus

Support Services

As allowed on the Lower Campus

[2] Parking structures or decks do not count toward square footage.

Residential Care

As allowed on the Lower Campus

Heliport

Subject to Conditional Use Permit[3]

B. Accessory uses normally incidental to hospital development.

C. Temporary structures and uses, including modular buildings.

***Prohibited Uses***

Conversion of mechanical or structural spaces to uses that allow general or routine occupancy.

***Height Restrictions:*** The maximum building height is based on the following height zones, as set forth in the PC Text and depicted on Exhibit 3.1-2.

**Upper Campus Tower Zone:** Maximum building height not to exceed the existing tower (235 feet above mean sea level [msl]).

**Upper Campus Mid-rise Zone:** Maximum building height not to exceed 140 feet above msl.

**Upper Campus Parking Zone:** Maximum building height not to exceed 80 feet above msl, excluding the elevator tower.

**Lower Campus Zone (Sub-areas A, B, C, F, G):** Within each sub-area, no building shall exceed the height of the existing slope and shall conform to the range of maximum building heights indicated in the development criteria (Exhibit 3.1-2).

**Lower Campus Zone (Sub-areas D and E):** Maximum building height shall not exceed the height of the existing Hoag Cancer Center (57.5 feet above msl).

***Building Setbacks:*** Building setbacks for the Upper and Lower Campuses are described below.

- Setbacks along property boundaries adjacent to the Villa Balboa Condominiums:

  a. The Upper Campus's western boundary setback shall be the prolongation of the westerly edge of the existing cafeteria/laboratory building to the points of intersection with the easterly curb line of the existing service drive, then continuing along said line of the existing service drive.

  b. The Lower Campus's northern boundary will have a 20-foot-wide minimum building setback.

[3] Does not count toward square footage.

- West Coast Highway is 15 feet east of the hospital entry signal.

  Vertical articulation is required for buildings east of the signal within 150 feet of the West Coast Highway frontage as follows:

  - **First Floor:** Up to 18 feet in height, no additional articulation is required. If the first floor exceeds 18 feet in height, it shall be subject to the articulation requirements of the second floor.

  - **Second Floor (up to 32 feet in height):** A minimum of 20 percent of the building frontage shall be articulated in such a manner as to result in an average second floor setback of 20 feet.

  - **Third Floor and Above:** A minimum of 20 percent of the building frontage shall be articulated in such a manner as to result in an average third floor and above setback of 25 feet.

- The setback on West Coast Highway west of Hoag's entry signal shall be 45 feet.

  Vertical articulation is required for buildings west of the signal for buildings within 150 feet of the West Coast Highway frontage as follows:

  - **First Floor:** For up to 18 feet in height, no additional articulation is required. If the first floor exceeds 18 feet in height, it is subject to the articulation requirements of the second floor.

  - **Second Floor (up to 32 feet in height):** A minimum of 20 percent of the building frontage is articulated in such a manner as to result in an average second floor setback of 55 feet.

### *Local Coastal Program*

Portions of Hoag are within the coastal zone and are subject to regulation by the California Coastal Commission (CCC) in accordance with the Coastal Act of 1976. The Coastal Commission's mandate is to protect and enhance the resources of the coastal zone, as mapped by the State legislature. Implementation of Coastal Act policies is accomplished primarily through the preparation of a Local Coastal Program (LCP). The LCP is typically prepared and adopted by a municipality or county and then reviewed and approved by the CCC. An LCP typically consists of a Land Use Plan and an Implementation Plan. The Coastal Land Use Plan indicates the type(s), location(s), and intensity of land uses; the applicable resource protection and development policies; and, where necessary, a listing of implementing actions. The Implementation Plan consists of the zoning ordinances, zoning district maps, and other legal instruments necessary to implement the Land Use Plan.

As set forth in Public Resources Code 30001.5, the basic goals of the Coastal Act are to:

a. Protect, maintain, and, where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.

b. Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.

## LEGEND

HEIGHT ZONES

### UPPER CAMPUS ZONES

TOWER ZONE- MAXIMUM BUILDING HEIGHT 235' ABOVE MEAN SEA LEVEL

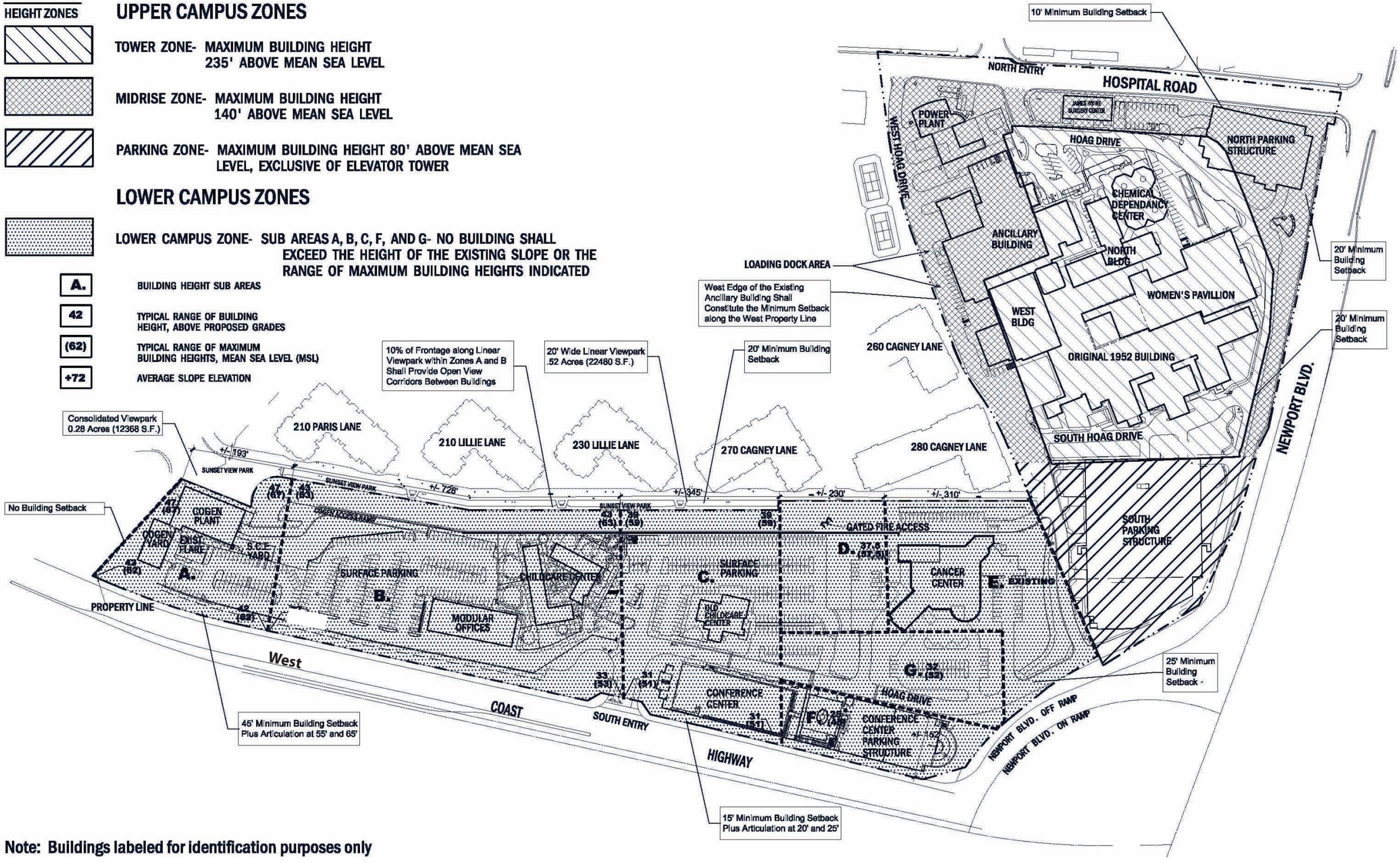
MIDRISE ZONE- MAXIMUM BUILDING HEIGHT 140' ABOVE MEAN SEA LEVEL

PARKING ZONE- MAXIMUM BUILDING HEIGHT 80' ABOVE MEAN SEA LEVEL, EXCLUSIVE OF ELEVATOR TOWER

### LOWER CAMPUS ZONES

LOWER CAMPUS ZONE- SUB AREAS A, B, C, F, AND G- NO BUILDING SHALL EXCEED THE HEIGHT OF THE EXISTING SLOPE OR THE RANGE OF MAXIMUM BUILDING HEIGHTS INDICATED

| | |
|---|---|
| A. | BUILDING HEIGHT SUB AREAS |
| 42 | TYPICAL RANGE OF BUILDING HEIGHT, ABOVE PROPOSED GRADES |
| (62) | TYPICAL RANGE OF MAXIMUM BUILDING HEIGHTS, MEAN SEA LEVEL (MSL) |
| +72 | AVERAGE SLOPE ELEVATION |




**Note: Buildings labeled for identification purposes only**



PC Text Development Criteria

Exhibit 3.1-2

*Hoag Hospital Master Plan Update Supplemental EIR*

BonTerra CONSULTING

c. Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.

d. Assure priority for coastal-dependent and coastal-related development over other development on the coast.

e. Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

The CCC approved the *City of Newport Beach Local Coastal Program Coastal Land Use Plan* (LCP Land Use Plan) on October 13, 2006, and the City Council adopted it on December 13, 2005 (Resolution No. 2005-64). Since that time, the City adopted a comprehensive update to the General Plan in 2006. Changes in the types, location, and intensity of land uses resulting from the adoption of the General Plan update necessitates an update to the Coastal Land Use Plan to provide consistency between the General Plan and the Coastal Land Use Plan. Public meetings will be held by the City on the updates to the Coastal Land Use Plan. Formal adoption of the LCP Coastal Land Use Plan would require a separate action by the City Council following CCC approval. Upon completion of the Coastal Land Use Plan, the Implementation Plan will be prepared.

After certification of an LCP, coastal development permit authority is delegated to the appropriate local government (in this case, the City of Newport Beach). The CCC retains original permit jurisdiction over certain specified lands (such as submerged lands, tidelands and public trust lands) and has appellate authority over development approved by the local government in specified geographic areas. In authorizing coastal development permits, the City must make the finding that the development conforms to the certified LCP.

The Lower Campus in its entirety and 0.21 acre of the Upper Campus are within the coastal zone. The LCP Land Use Plan designates these areas as “Public Facilities.” The Public Facilities designation is “intended to provide public and quasi-public facilities, including educational institutions, cultural institutions, government facilities, libraries, community centers, hospitals, religious institutions, and utilities. Development intensity ranges from a floor area to land area ratio of 0.50 to 1.00.”

### 3.1.3 THRESHOLDS OF SIGNIFICANCE

The City has determined that the Project would result in a significant impact on the environment if it would:

Threshold 3.1-1 Be incompatible with existing land uses in the vicinity.

Threshold 3.1-2 Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

## 3.1.4 ENVIRONMENTAL IMPACTS

Future implementation of the proposed Master Plan Update Project would result in a variety of environmental impacts to the natural and urban systems in the area that affect land use and land use compatibility; these relate to traffic, air quality, noise, and visual resources. These impacts, although related to land use, are addressed in individual sections of this SEIR. This section focuses on the Project's compatibility with on-site and surrounding land uses, and its consistency with adopted planning programs and their requirements.

The approved *Hoag Hospital Master Plan* currently allows for up to 1,343,238 sf of development at Hoag, inclusive of the Upper and Lower Campuses. No additional square footage is proposed as a part of this Master Plan Update Project. The Project proposes to reallocate up to 225,000 sf of previously approved (but not constructed) square footage from the Lower Campus to the Upper Campus, Of the remaining approved but not constructed uses, the *Hoag Hospital Master Plan* permits additional hospital beds as a function of the square footage allocation for Hoag. The maximum allowable building area on the Upper Campus would be 990,349 sf (if all 225,000 sf are reallocated from the Lower Campus to the Upper Campus) and the maximum allowable building area on the Lower Campus would be 577,889 sf (if no square footage is reallocated). However, in no event could the combined total building areas of both the Upper and Lower Campuses exceed 1,343,238 sf.

As previously noted in this SEIR, site-specific development is not proposed as a part of the Master Plan Update Project. No substantive modifications to the development criteria adopted in conjunction with the 1992 Master Plan are proposed. Because the proposed Master Plan Update Project does not provide for the approval of any specific development project, no specific building designs, locations, or features are evaluated. Similar to Final EIR No. 142, this SEIR addresses potential effects associated with development consistent with existing PC Text development criteria for Hoag, with the exception of proposed modifications to noise standards.

The existing PC Text provides that mechanical equipment noise generated from Hoag Hospital 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.

## Impact Analysis

***Threshold 3.1-1: Would the project be compatible with existing land uses in the vicinity?***

### *On-site Land Uses: Conversion/Dislocation of Existing Land Uses*

As envisioned in the existing Master Plan, it is likely that the existing four-story hospital building and other smaller buildings in the Upper Campus would be demolished and replaced with a multi-story structure or structures. Although this change was anticipated in the existing Master Plan, the proposed Master Plan Update Project would allow greater flexibility for increasing the size of structures through the proposed square footage reallocation to the Upper Campus. The potential displacement of existing structures internal to Hoag was previously considered in Final EIR No. 142 and was not considered a significant land use impact. This SEIR finds that conclusion to be accurate for the proposed Master Plan Update Project as well.

### *Compatibility with Existing On-site Land Uses*

As previously discussed, the proposed Master Plan Update Project would allow greater intensity of development on the Upper Campus. Up to 225,000 sf of the previously approved but not constructed square footage for Hoag could be reallocated from the Lower Campus to the Upper Campus. This intensification of uses on the Upper Campus would have a commensurate reduction in development on the Lower Campus. This would not result in significant land use compatibility impacts within Hoag. Without specific development plans, it is unknown exactly how this approved but not yet constructed development may be sited, but it would still occur within the same building envelope assumed in the existing Master Plan and PC Text (Exhibit 3.1-2). Increased development on both the Upper and Lower Campuses was anticipated in the previous EIR. No significant land use impacts internal to the site are anticipated.

### *Compatibility with Surrounding Off-site Land Uses*

Land use incompatibility can occur where differences between proximate uses result in differences in the physical scale of development, noise levels, traffic levels, etc. that impact these uses such that project-related significant unavoidable indirect effects preclude use of the existing land uses as they were intended.

Upper Campus

The Upper Campus has 67,228 sf of currently approved but not constructed development. As previously noted, the proposed Master Plan Update Project would allow for the reallocation of up to 225,000 sf of currently approved but not constructed square footage from the Lower Campus to the Upper Campus resulting in a maximum of 292,228 sf of medical-related uses to be built on the Upper Campus. The maximum allowable building area on the Upper Campus would be 990,349 sf (if all 225,000 sf are reallocated from the Lower Campus to the Upper Campus) and the maximum allowable building area on the Lower Campus would be 577,889 sf (if no square footage is reallocated). However, in no event could the combined total building areas of both the Upper and Lower Campuses exceed 1,343,238 sf.

***Land Uses to the North:*** Land uses to the north include Hospital Road; the Lido Towers (medical buildings associated with Hoag Hospital) located north of Hospital Road; medical office, administrative, and financial uses north of Hospital Road; and an assisted living complex north of Hospital Road. Continued use of the northern portion of the Upper Campus for medical

and ancillary (e.g., parking) uses would be considered compatible with existing off-site uses. Contiguous properties to the north of Hospital Road between Newport Avenue to the east and Superior Avenue to the west have General Plan land use designations of "Private Institutions" and "Medical Commercial Office" (east to west).

***Land Uses to the South:*** The Lower Campus is located to the south. As noted in the previous analysis of on-site compatibility, no land use compatibility impacts are expected internal to Hoag.

***Land Uses to the East:*** The Upper Campus is adjacent to Newport Boulevard, which is a major six-lane divided roadway. Residential and retail uses are located east of Newport Boulevard and have General Plan land use designations of "General Commercial Office," "Single-Unit Residential Detached," "Two-Unit Residential," and "General Commercial." At Hoag, from north to south, the following on-site uses are sited parallel to Newport Boulevard: the visitor's parking structure (North Parking Structure), the seven-story Women's Pavilion, the four-story hospital building, and the physicians and employees parking structure (South Parking Structure). Because of the distance between the existing and proposed development at Hoag with land uses east of Newport Boulevard (across a major six-lane, divided roadway), off-site land uses would not be adversely affected by the proposed modification of the Master Plan. No significant land use impacts are anticipated to the east of Hoag.

***Land Uses to the West:*** Surrounding land uses to the west of the Upper Campus are the Villa Balboa Condominiums and The Versailles at the Bluff Condominiums; Superior Avenue; and additional multi-family development west of Superior Avenue. Three four-story condominium buildings and two tennis courts are adjacent to Hoag and are separated from Hoag by dense vegetative landscaping and West Hoag Drive, a service access road that runs north-south along the western boundary of the Upper Campus. The condominiums have a General Plan land use designation of "Multiple-Unit Residential." In total, the Villa Balboa and The Versailles at the Bluff Condominium complexes have 673 dwelling units.

As previously noted, no changes in the building height or building setback standards set forth in the PC Text are proposed. The Upper Campus Tower Zone's maximum building height is 235 feet above msl (Exhibit 3.1-2). The Upper Tower Zone generally includes the existing hospital site, West Tower, and Women's Pavilion site and extends south to the physicians and staff parking structure (known as the Parking Zone). The Parking Zone has a maximum building height of 80 feet above msl. To accommodate additional square footage in the Upper Campus, it is reasonable to assume that some of the smaller and shorter buildings (e.g., the hospital) on the site would be demolished to allow for a multi-story structure or structures in the Tower Zone.

The existing condominium development is contiguous to the Upper Campus Midrise Zone which permits buildings up to 140 feet above msl. West Hoag Drive, the loading dock area, trash collection, power plant, the Hoag Heart and Vascular Institute, the James Irvine Surgery Center, and emergency room are included in the land uses in this zone. Although increased development was anticipated in the existing Master Plan, the proposed Master Plan Update Project would allow for more square footage in the Upper Campus than was anticipated in the existing Master Plan, including development in the Mid-rise Zone.

The PC Text states that the building setbacks for Hoag adjacent to the Villa Balboa Condominiums are as follows:

> *Upper campus western boundary setback shall be the prolongation of the westerly edge of the existing cafeteria/laboratory building to the points of intersection with the easterly curb line of the*

> *existing service drive, then continuing along said line of the existing service drive* (page 16).

While new development could be constructed up to 140 feet above msl adjacent to the existing condominiums, such development would be no closer or taller than development currently permitted under the existing Hoag Master Plan. As addressed in greater detail in Section 3.5, Aesthetics, the aesthetic impacts of the proposed Master Plan Update Project, including shade and shadow effects, are less than significant. Residential units along the western edge of the Upper Campus, especially units on upper stories, have views of the uses along West Hoag Drive and beyond, including the loading dock area and service areas at Hoag. Final EIR No. 142 found that implementation of the Master Plan would have less than significant aesthetic impacts (page 4-59).

As addressed in Section 3.4, Noise, the anticipated noise impacts from loading dock activities associated with the proposed Master Plan Update Project will be significant and unavoidable. Final EIR No. 142 found that the project's incremental addition to cumulative traffic noise impacts was a significant and unavoidable cumulative noise impact (page 5-8). The proposed Master Plan Update Project would not result in any new significant land use impacts to residences west of Hoag because the aesthetic and noise impacts of the Project would not increase or differ from the affects set forth in Final EIR No. 142. However, the significant unavoidable land use impact identified in Final EIR No. 142 would not be reduced to a level considered less than significant through the implementation of the proposed Master Plan Update Project.

Lower Campus

The Lower Campus has 389,740 sf of remaining approved but not constructed square footage. With the proposed reallocation of up to 225,000 sf to the Upper Campus, the Lower Campus could be constructed with between 164,740 sf and 389,740 sf of additional approved but not constructed square footage could be constructed on the Lower Campus. The maximum allowable building area on the Lower Campus would be 577,889 sf (if no square footage is reallocated) and the maximum allowable building area on the Upper Campus would be 990,349 sf (if all 225,000 sf are reallocated from the Lower Campus to the Upper Campus). In no event could the combined total building areas of both the Upper and Lower Campuses exceed 1,343,238 sf. No land use impacts for the Lower Campus were identified in Final EIR No. 142.

***Land Uses to the North:*** Land uses to the north include the Villa Balboa Condominiums and The Versailles at the Bluff Condominiums; the Hoag Upper Campus; and Sunset View Park, a 0.28-acre consolidated park site and a 0.52-acre (20-foot-wide) linear park that extends along much of the northern boundary of the Lower Campus. The park separates the condominium developments from the Lower Campus. There is a substantial elevation difference between these uses.

As previously noted, no changes in the building height or building setback standards set forth in the PC Text are proposed. While between 164,740 sf and 389,740 sf of additional development (approved but not constructed) could be constructed in the Lower Campus depending on how much square footage is transferred and constructed on the Upper Campus rather than the Lower Campus; Final EIR No. 142 assumed no reallocation. As such, the proposed Master Plan Update Project represents a reduction of up to 225,000 sf from that which is currently permitted for this portion of Hoag. Final EIR No. 142 noted:

> *Residents in the Villa Balboa/Sea Fair condominiums will have direct view of the Hospital development…However, all of the building development on the Lower Campus will be at an elevation lower than the residential units….The reduced elevation of the Hospital facilities and the presence of the park, bicycle trail and access road with controlled use will provide a buffer between the existing residential units and proposed Hospital uses. Therefore, a land use impact is not identified for the Lower Campus.* (page 4-62)

Because less development may be implemented on the Lower Campus than is currently approved and the allowable uses and heights of development are not proposed for change as a part of the proposed Master Plan Update Project, no significant land use impacts to uses to the north are expected.

***Land Uses to the South:*** The Lower Campus borders West Coast Highway. Residential uses within Balboa Cove and the Newport Beach Townhouses are located south of West Coast Highway. West Coast Highway is a major six-lane divided roadway. Residential uses located south of the highway are designated "Single-Unit Residential Detached" and "Multiple Unit Residential." Because of the distance between existing and proposed development at Hoag with land uses south of West Coast Highway and the potential reduction in development on the Lower Campus, off-site land uses would not be adversely affected by the proposed Master Plan Update Project. No significant land use impacts would be anticipated for uses to the south.

***Land Uses to the East:*** The Lower Campus is adjacent to both the Newport Boulevard westbound off-ramp to West Coast Highway and the physicians and staff parking structure for the Upper Campus. Residential and retail uses are located east of Newport Boulevard and have General Plan land use designations of "General Commercial Office," "Single-Unit Residential Detached," "Two-Unit Residential," and "General Commercial." Because of the distance between existing and proposed development in the Lower Campus with land uses east of Newport Boulevard, no significant off-site land use impacts would be anticipated for uses to the east of the Lower Campus.

***Land Uses to the West:*** The Lower Campus borders vacant land, a public parking lot, and Superior Avenue (approximately 700 feet west of the Lower Campus). Open space and multi-family residential development is located west of Superior Avenue. Hoag's cogeneration facility and the undeveloped Sunset View Park abut the western boundary of the Lower Campus. The view park and the open space area west of Superior Avenue are designated "Parks and Recreation" (which will become the future Sunset Ridge Park), and the residences west of Superior Avenue are designated "Multiple-Unit Residential." Because the Hoag cogeneration plant is a relatively new facility and is the closest Hoag facility to the western boundary, it is therefore reasonable to assume that this facility would not be removed and therefore no new development would occur closer to existing off-site uses to the west. Because of this factor and the distance from off-site residential uses, no land use conflicts are anticipated for uses to the west.

***Impact 3.1-1:*** ***Significant Unavoidable Impact.*** Implementation of development on the Upper Campus as proposed with the Master Plan Update Project would have no greater or different land use effect than the existing Master Plan, and would therefore not have a significant project impact. However, the Project will not alleviate the significant unavoidable land use impact to residences to the west of Hoag on the Upper Campus identified in Final EIR No. 142. As such, the significant and unavoidable land use compatibility impact identified in

Final EIR No. 142 would continue to exist with buildout of Hoag under the proposed Master Plan Update Project scenario. This is not considered a new impact. The proposed Master Plan Update Project is considered compatible with land uses to the north, south, and east. No significant land use compatibility impacts would be associated with the Lower Campus.

### *Consistency with Applicable Planning and Programs*

***Threshold 3.1-2: Would the project conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?***

Table 3.1-1 provides a summary of the Master Plan Update Project's consistency with applicable goals and policies from both the *City of Newport Beach General Plan* and the *City of Newport Beach Local Coastal Program Land Use Plan*. Additionally, the PC Text would be amended to establish maximum allowable building areas of 990,349 sf for the Upper Campus (if all 225,000 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, consistent with the proposed General Plan Amendment. The Applicant is requesting modifications and clarifications to the PC Text. These changes would not substantively change the development standards supporting the proposed uses at Hoag, with the exception of noise standards (see Section 2.0, Project Description, and Section 3.4, Noise). No changes are proposed to permissible uses other than to provide clarifying language; building heights; and building setbacks established in the existing PC Text.

**TABLE 3.1-1**
**CONSISTENCY OF THE PROPOSED PROJECT WITH LAND USE-RELATED GOALS AND POLICIES**

| Goals and Policies | Consistency Evaluation |
|---|---|
| ***City of Newport Beach General Plan*** | |
| *Goal LU 1: A unique residential community with diverse coastal and upland neighborhoods, which values its colorful past, high quality of life, and community bonds, and balances the needs of residents, business, and visitors through the recognition that Newport Beach is primarily a residential community.* | |
| LU 1.1: Maintain and enhance the beneficial and unique character of the different neighborhoods, business districts, and harbor that together identify Newport Beach. Locate and design development to reflect Newport Beach's topography, architectural diversity, and view sheds. *(Imp 1.1)* | Hoag is a prominent feature in the West Newport area of the City because of its visibility from West Coast Highway and its reputation as a leading medical facility. Continued development of Hoag with medical uses would not detract from the character of the area. Buildings would be constructed in conformance with the standards established in the PC Text. |
| LU 1.5: Encourage a local economy that provides adequate commercial, office, industrial and marine-oriented opportunities that provide employment and revenue to support high quality community services. *(Imp 1.1, 24.1)*. | The City identifies Hoag is the largest employee (2,700) in the City (Newport Beach 2007). The proposed Master Plan Update Project would provide for additional medical-related facilities in support of the needs of the local community and region. |
| *Goal LU 2: A living, active, and diverse environment that complements all lifestyles and enhances neighborhoods, without compromising the valued resources that make Newport Beach unique. It contains a diversity of uses that support the needs of residents, sustain and enhance the economy, provide job opportunities, serve visitors that enjoy the City's diverse recreational amenities, & protect its important environmental setting, resources, and quality of life.* | |
| LU 2.1: Accommodate uses that support the needs of Newport Beach's residents including housing, | The first hospital opened in September 1952 at Hoag and was initiated to serve the needs of coastal Orange County |

## TABLE 3.1-1 (Continued)
## CONSISTENCY OF THE PROPOSED PROJECT WITH LAND USE-RELATED GOALS AND POLICIES

| Goals and Policies | Consistency Evaluation |
|---|---|
| retail, services, employment, recreation, education, culture, entertainment, civic engagement, and social and spiritual activity that are in balance with community natural resources and open spaces. *(Imp 1.1, 2.1)* | residents. The proposed Master Plan Update Project would allow for the continued compliance with this policy. |
| LU 2.4: Accommodate uses that maintain or enhance Newport Beach's fiscal health and account for market demands, while maintaining and improving the quality of life for current and future residents. *(Imp 1.1, 24.1)* | As noted above, the City has identified Hoag as the largest employee in the City. Additional facilities would be constructed based on the medical needs of the local community and region so that the quality of life for local residents will continue to be enhanced. |
| LU 2.8: Accommodate the types, densities, and mix of land uses that can be adequately supported by transportation and utility infrastructure (water, sewer, storm drainage, energy, and so on) and public services (schools, parks, libraries, seniors, youth, police, fire, and so on). *(Imp 1.1, 10.2, 11.1)* | The purpose of this Supplement to Final EIR No. 142 is to assess any potential significant environmental effects associated with the proposed Master Plan Update Project. As identified in this SEIR, the Project would not result in any new significant impacts to transportation, utility infrastructure, or public services. |
| *Goal LU 3: A development pattern that retains and complements the City's residential neighborhoods, commercial and industrial districts, open spaces, and natural environment.* | |
| LU 3.1: Maintain Newport Beach's pattern of residential neighborhoods, business and employment districts, commercial centers, corridors, and harbor and ocean districts. *(Imp 1.1)* | The proposed Master Plan Update Project would allow for the reallocation of previously approved development for Hoag within the existing site boundaries and within the same development envelope assumed in the existing Master Plan for Hoag. Therefore, the overall pattern of development for the area would not change. |
| LU 3.2: Enhance existing neighborhoods, districts, and corridors, allowing for re-use and infill with uses that are complementary in type, form, scale, and character. Changes in use and/or density/intensity should be considered only in those areas that are economically underperforming, are necessary to accommodate Newport Beach's share of projected regional population growth, improve the relationship and reduce commuting distance between home and jobs, or enhance the values that distinguish Newport Beach as a special place to live for its residents. The scale of growth and new development shall be coordinated with the provision of adequate infrastructure and public services, including standards for acceptable traffic levels of service. *(Imp 1.1, 2.1, 5.1, 10.2, 16.2, 16.3, 17.1, 18.1, 19.1, 22.1, 23.1, 23.2)* | As previously stated, the objective of the proposed Master Plan Update Project is to allow greater flexibility within the Hoag Hospital Master Plan in an effort to allow Hoag to respond to changes in the health care industry while maintaining an overall development cap. The proposed potential intensification on the Upper Campus with a corresponding potential reduction in square footage on the Lower Campus is proposed to respond to the changing needs of Hoag and how medical services are provided to the residents of Newport Beach and the region. |
| *Goal LU 4: Management of growth and change to protect and enhance the livability of neighborhoods and achieve distinct and economically vital business and employment districts, which are correlated with supporting infrastructure and public services, and sustain Newport Beach's natural setting.* | |
| LU 4.1: Accommodate land use development consistent with the Land Use Plan [Figures LU1 through LU15 of the General Plan]. *(Imp 2.1, 5.1, 10.2)* | The proposed Master Plan Update Project is consistent with the underlying land use definitions for Hoag provided in the General Plan. |
| *Goal LU 6.1: A diversity of governmental service, institutional, educational, cultural, social, religious, and medical facilities that are available for and enhance the quality of life for residents and are located and designed to complement Newport Beach's neighborhoods.* | |

## TABLE 3.1-1 (Continued)
## CONSISTENCY OF THE PROPOSED PROJECT WITH LAND USE-RELATED GOALS AND POLICIES

| Goals and Policies | Consistency Evaluation |
|---|---|
| LU 6.1.1: Accommodate schools, government administrative and operational facilities, fire stations and police facilities, religious facilities, schools, cultural facilities, museums, interpretative centers, and hospitals to serve the needs of Newport Beach's residents and businesses. *(Imp 1.1, 2.1)* | The remaining square footage at Hoag represents approved but not constructed development. The proposed Master Plan Update Project would permit the reallocation of this overall allowable development from the Lower Campus to the Upper Campus. |
| LU 6.1.5: Support Hoag Hospital in its mission to provide adequate facilities to meet the needs of area residents. Work with the Hospital to ensure that future development plans consider its relationship to and assure compatibility with adjoining residential neighbors and mitigate impacts on local and regional transportation systems. *(Imp 24.1)* | The proposed Master Plan Update Project evaluates its relationship to adjacent land uses. With mitigation, the reallocation of approved but not constructed square footage may result in improved noise attenuation and a reduction in traffic volumes. The City's Implementation Program 24.1 states that "The Economic Development Committee should complete the Strategic Plan for Economic Sustainability for City Council approval. This plan should outline the incentives to be provided and other City actions to be undertaken to implement the goals and policies of the General Plan. This plan should be dynamic and reviewed and updated annually as a part of the City budget." As previously noted, the City identifies Hoag is the largest employee in the City. The proposed Master Plan Update Project would provide for additional medical-related facilities in support of the needs of the local community and region consistent with the City's economic needs. The buildout of Hoag in accordance with the proposed update to the Master Plan supports Hoag in its mission to provide adequate facilities to meet the needs of area residents. |
| *Goal LU 6.6: A medical district with peripheral medical services and research facilities that support the Hoag Hospital campus within a well-planned residential neighborhood, enabling residents to live close to their jobs and reducing commutes to outlying areas.* | |
| LU 6.6.1: Prioritize the accommodation of medical-related and supporting facilities on properties abutting the Hoag Hospital complex [areas designated as "CO-M (0.5)" (Figure LU18, Sub-Area A)] with opportunities for new residential units [areas designated as "RM (18/ac)"] and supporting general and neighborhood retail services ["CG (0.75)" and "CN (0.3)] respectively. *(Imp 2.1)* | Hoag is an existing medical facility that has been located in the City since 1952. No Hoag development is proposed outside the existing boundaries of the project site. The proposed Master Plan Update Project would not preclude future off-site medical, retail, or residential uses adjacent to Hoag. |
| ***Newport Beach Local Coastal Program (LCP)*** | |
| **Coastal Land Use Plan** | |
| 2.1.2-1: Land uses and new development in the coastal zone shall be consistent with the Coastal Land Use Plan Map and all applicable LCP policies and regulations. | The Lower Campus in its entirety and 0.21 acre of the Upper Campus are within the coastal zone. The LCP Land Use Plan designates these areas as "Public Facilities." The Public Facilities designation is "intended to provide public and quasi-public facilities, including educational institutions, cultural institutions, government facilities, libraries, community centers, hospitals, religious institutions, and utilities." (page 2-4) No changes in land use are proposed in the Lower Campus, only the ability to transfer a maximum of 225,000 sf of development to the Upper Campus. Because the CCC approved the existing Master Plan, the proposed Master Plan Update is considered consistent with this LCP policy. |

**TABLE 3.1-1 (Continued)**
**CONSISTENCY OF THE PROPOSED PROJECT WITH LAND USE-RELATED GOALS AND POLICIES**

| Goals and Policies | Consistency Evaluation |
|---|---|
| 2.2.2-1 Continue to allow redevelopment and infill development within and adjacent to the existing development areas in the coastal zone subject to the density and intensity limits and resource protection policies of the Coastal Land Use Plan. | As previously addressed, no additional square footage is requested as a part of the Project, only the ability to transfer currently approved but not constructed square footage from the Lower Campus to the Upper Campus. As noted above, only 0.21 acre of the Upper Campus is in the coastal zone. |
| 2.2.2-2 Require new development to be located with adequate public services or in areas that are capable of having public services extended or expanded without significant adverse effects on coastal resources. | The Project is not expected to have impacts to public facilities or to utility service; no significant impacts were identified in Final EIR No. 142. No additional square footage is proposed as a part of the Project. |

***Impact 3.1-2:*** ***Less Than Significant.*** As indicated in the text above and in Table 3.3-1, the Project would be consistent with applicable plans and policies.

### 3.1.5 MITIGATION PROGRAM

The measures discussed below were adopted as a part of Final EIR No. 142 and would apply to the proposed Master Plan Update Project. Mitigation measure numbering reflects that provided in Resolution No. 92-43 for certification of Final EIR No. 142. Minor modifications to the mitigation measures are proposed to reflect the current status of Hoag; some of the mitigation measures in Final EIR No. 142 have been implemented and are no longer applicable. ~~Strikeout text~~ is used to show deleted wording and *italic text* is used to show wording that has been added. No additional mitigation is required as a part of the proposed Master Plan Update Project.

**Project Design Features**

The Master Plan Update Project does not propose any project design features related to land use.

**Standard Conditions and Requirements**

All applicable standard conditions and requirements are incorporated into the adopted Mitigation Program for Final EIR No. 142.

**Mitigation Measures**

***Final EIR No. 142 Previously Adopted Mitigation Measures***

Mitigation Measures Proposed for Revision

24. The proposed project is subject to all applicable requirements of the City of Newport Beach General Plan, Zoning Code, and Local Coastal Program (LCP). Those requirements that are superseded by the PCDP and District Regulations are not considered applicable. The following discretionary approvals are required by the City of

Newport Beach: SEIR certification, ~~adoption of the Master Plan,~~ adoption of *an Amendment to* the Planned Community Development Plan and District Regulations, *adoption of an Amendment to the General Plan,* approval of a*n Amendment to the* Development Agreement, ~~approval of a zone change to Planned Community District,~~ grading permits, and building permits for some facilities. The California Coastal ~~Development~~ Commission has the discretionary responsibility to issue a Coastal Development Permit for the Lower Campus ~~and a Local Coastal Program Amendment for the Lower Campus~~.

**Rationale:** This mitigation measure would be revised to reflect the current status of required actions associated with the Master Plan Update Project.

118. For any building subject to the issuance of the building permit by the ~~Office of the State Architect~~ California Office of Statewide Health Planning and Development (OSHPD), Hoag Hospital shall submit to OSHPD ~~the State Architect~~ a letter from the City of Newport Beach indicating that review of the ~~construction~~ development plans has been completed and that the plans are in compliance with all City requirements.

**Rationale:** Mitigation Measure 118 was adopted as part of Final EIR No. 142; however, for projects that require issuance of a building permit by the California Office of Statewide Health Planning and Development (OSHPD), the City of Newport Beach has limited jurisdiction in the review and approval of development plans. Therefore, this measure is being revised to indicate that the City of Newport Beach will provide a letter indicating review should the OSHPD request such documentation.

Mitigation Measures No Longer Required

The following mitigation measures, adopted as a part of Final EIR No. 142, have been implemented and are no longer required.

23. The Project Sponsor shall construct, if feasible and by mutual agreement, and maintain a fence along the common property line west of Upper Campus. The proposed design of the fence shall be reviewed and approved by the City Engineering Department.

113. Subsequent to the approval of this Agreement by the Coastal Commission and the expiration of any statute of limitation for filing a legal challenge to this Agreement, the Master Plan, or the EIR, Hoag shall deposit Two Hundred and Fifty Thousand Dollars ($250,000) in an account, and at a financial institution, acceptable to City. The account shall be in the name of the City provided, however, Hoag shall have the right to access the funds in the event, but only to the extent that, Hoag constructs or installs the improvements described in (i) or (ii). Funds in the account shall be applied to the following projects (in order of priority upon notice to proceed served by City on Hoag).

(i) The construction of a sidewalk and installation of landscaping in the CalTrans right-of-way along the west side of Newport Boulevard southerly of Hospital Road;

(ii) The construction of facilities necessary to bring reclaimed water to West Newport and/or the Property;

Any funds remaining in the account after completion of the projects described in (i) and (ii) shall be used by the City to fund, in whole or in part, a public improvement in the vicinity of the property.

### 3.1.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Final EIR No. 142 found that the project will result in a significant and unavoidable land use impact on residential units located directly adjacent to the western buildings of the Upper Campus. Although the project setback limits are more stringent than City Code, the placement of Hospital buildings closer to residential units located to the west of the Upper Campus was identified as a significant impact when considered in combination with other impacts such as shade and shadow and noise impacts in this location. Consistent with the conclusions of Final EIR No. 142, this SEIR finds that the proposed Master Plan Update Project will also result in significant impacts to existing residential development west of the Upper Campus. The proposed amendment to the Master Plan would not alter or make these impacts more severe. Therefore, while the Project would cause a significant unavoidable land use impact, it would not constitute a new impact. No other significant land use impacts have been identified.

# 3.2 TRANSPORTATION AND CIRCULATION

This Supplemental EIR (SEIR) section summarizes the findings of the traffic impact study prepared by Linscott, Law & Greenspan, Engineers (LLG) (July 2007) to evaluate the potential traffic impacts associated with the Master Plan Update Project. LSA Associates, Inc. (LSA) (August 2007) prepared a site access and on-site circulation study for Hoag. Both studies are included in their entirety as Appendix C to this SEIR.

## 3.2.1 SUMMARY OF FINAL EIR NO. 142

A traffic study was prepared for Final EIR No. 142 in 1991 by LSA (LSA 1991); Final EIR No. 142 was certified in 1992. That traffic study focused on the evaluation of Phase I traffic and parking-related issues, and also provided a detailed analysis based upon an assumed buildout size for the two remaining phases of the Master Plan: Phase II and Phase III. It should be noted that Hoag was not stipulated to build out the project site in three phases. Phasing was established in Final EIR No. 142 based on the expected buildout of Hoag and for purposes of the CEQA analysis. Final EIR No. 142 evaluated traffic impacts on the basis of whether the project would "cause an increase in traffic which is substantial in relation to the entire traffic load and capacity of the Circulation System. In the City of Newport Beach, 'substantial' is defined as per the City's Traffic Phasing Ordinance (TPO)" (page 4-72). Final EIR No. 142 determined that the Master Plan Project would not adversely affect intersections in the traffic study area, but that subsequent TPO analyses and Master Plan Trip Budget analyses would be required. As part of the list of mitigation measures that was developed for Phase I, a Phase II TPO analysis was required subsequent to the completion of Phase I and prior to Phase II. The same analysis would also be conducted prior to future phases. A Phase II TPO traffic study for the Sue and Bill Gross Women's Pavilion was completed on October 15, 2001. A Phase III TPO traffic study was completed on June 22, 2005, which evaluated the potential traffic impacts of developing 130,000 square feet (sf) of outpatient uses in a new building on the Lower Campus.

Final EIR No. 142 also addressed potential traffic impacts associated with construction activities. It was noted that traffic delays could occur on Superior Avenue, Newport Boulevard, Hospital Road, and Coast Highway near Hoag. Final EIR No. 142 recommended that construction activities (particularly the use of multiple axle trucks) be limited during the months of June through September to avoid conflicts with beach and tourist traffic. This recommendation was noted to be subject to the discretion of the City Traffic Engineer. Traffic delays would be considered less than significant. This recommendation was adopted as a part of the Mitigation Program for Final EIR No. 142. In summary, Final EIR No. 142 found that traffic and parking impacts with buildout of the Master Plan would be less than significant with mitigation.

## 3.2.2 METHODOLOGY AND ASSUMPTIONS

### Traffic Study Area

The traffic study methodology and study area were defined by the City of Newport Beach, in accordance with the City's traffic study guidelines and in consultation with the City of Costa Mesa. Because the City of Costa Mesa is within the Project's influence area, City of Costa Mesa staff requested that the traffic study include the evaluation of nine Costa Mesa intersections. The City of Costa Mesa's traffic study guidelines were applied in the analysis of these nine Costa Mesa intersections. The study area for the traffic analysis is depicted on Exhibit 3.2-1 and includes 24 intersections: 15 intersections in the City of Newport Beach and 9 intersections in the City of Costa Mesa. These study area intersections are identified below.

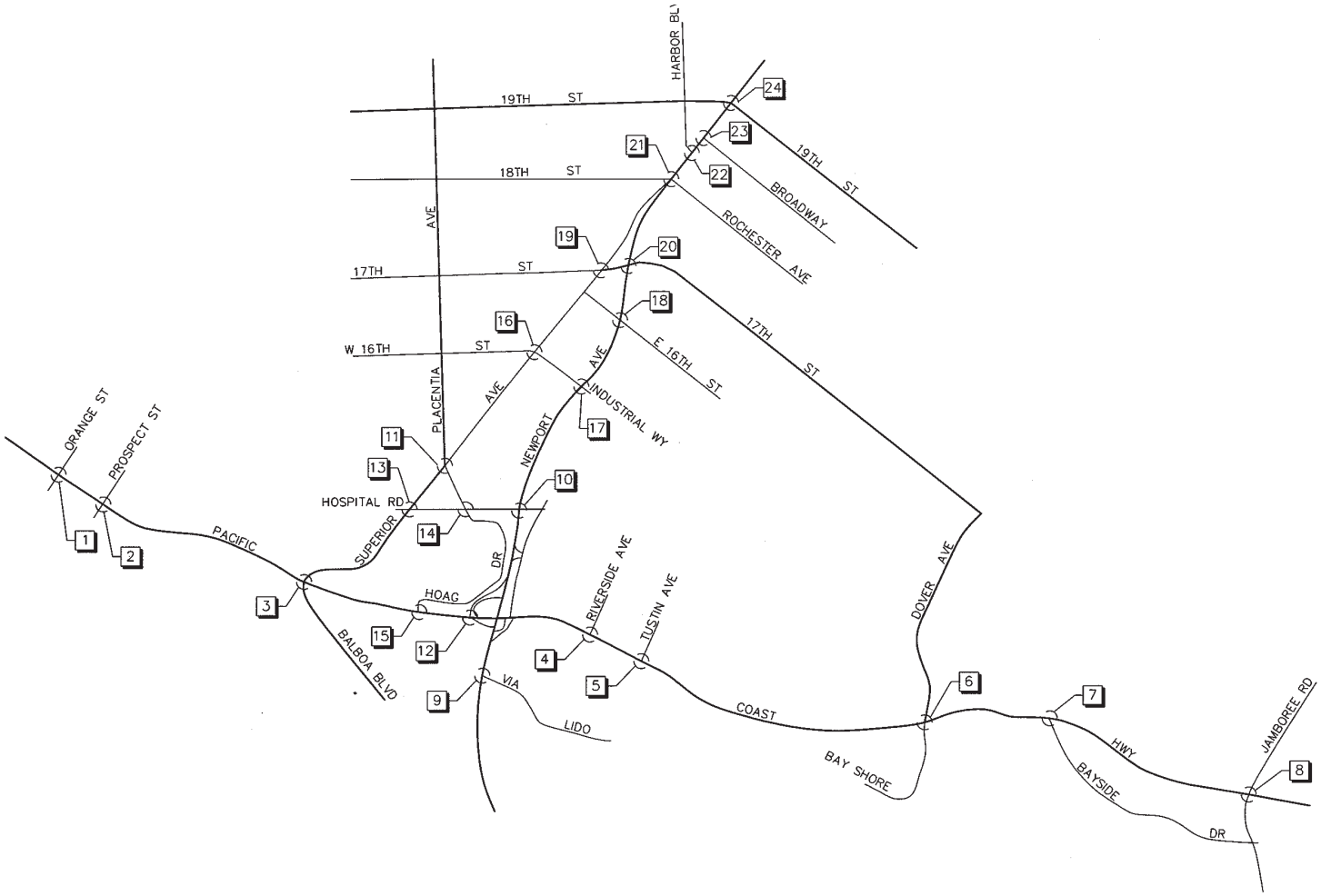
### *City of Newport Beach Intersections*

1. Orange Street/West Coast Highway
2. Prospect Street/West Coast Highway
3. Balboa Boulevard–Superior Avenue/West Coast Highway
4. Riverside Avenue/West Coast Highway
5. Tustin Avenue/West Coast Highway
6. Bayshore Drive–Dover Drive/West Coast Highway
7. Bayside Drive/East Coast Highway
8. Jamboree Road/East Coast Highway
9. Newport Boulevard/Via Lido
10. Newport Boulevard/Hospital Road
11. Superior Avenue/Placentia Avenue
12. Newport Boulevard southbound off-ramp/West Coast Highway
13. Superior Avenue/Hospital Road
14. Hoag Drive–Placentia Avenue/Hospital Road
15. Hoag Drive/West Coast Highway

### *City of Costa Mesa Intersections*

16. Superior Avenue/16th Street–Industrial Way
17. Newport Boulevard/Industrial Way
18. Newport Boulevard/16th Street
19. Superior Avenue/17th Street
20. Newport Boulevard/17th Street
21. Newport Boulevard/18th Street–Rochester Avenue
22. Newport Boulevard/Harbor Boulevard
23. Newport Boulevard/Broadway
24. Newport Boulevard/19th Street

The traffic counts for the AM and PM peak periods (between 7:00 AM and 9:00 AM, and between 4:00 PM and 6:00 PM, respectively) for 11 of the 15 key Newport Beach intersections were provided by the City and were collected in 2005–2006 (most recent available counts). The traffic counts for Coast Highway, Newport Boulevard, and Jamboree Road were adjusted by a growth factor of one percent per year compounded annually to reflect 2007 conditions, as directed by the Newport Beach Traffic Engineer. Because the intersections of Superior Avenue/Hospital Road (#13) and Hoag Drive–Placentia Avenue/Hospital Drive (#14) were under construction during the preparation of this traffic study, the City's 2003 peak period counts (most recent available) were adjusted by growth factors derived from the adjacent intersections to reflect 2007 conditions. AM and PM peak period traffic counts were collected in March 2007 for two intersections: Prospect Street/West Coast Highway (#2) and Hoag Drive/West Coast




# Traffic Study Area

Exhibit 3.2-1

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan

BonTerra CONSULTING

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Highway (#15). The City of Costa Mesa's AM and PM peak period traffic counts for the nine key intersections in Costa Mesa were collected in March and April 2007.

## Traffic Scenarios

Traffic conditions were analyzed for the following scenarios:

*Existing (2007)*

*Year 2015 Without Project (Existing Master Plan)*

*Year 2015 With Proposed Master Plan Update*

*Year 2025 (General Plan Buildout) Without Project (Existing Master Plan)*

*Year 2025 (General Plan Buildout) With Proposed Master Plan Update Project*

***Existing (2007):*** The analysis of existing traffic conditions provides a base of analysis for the remainder of the traffic study. Existing Conditions (2007) includes an assessment of the streets and highways in the traffic study area, current traffic volumes, and operating conditions.

***Year 2015 Without Project (Existing 1992 Master Plan):*** This scenario identifies future traffic conditions in 2015, which could be expected to result from regional growth and related projects, as well as buildout of Hoag in 2015 under the 1992 Master Plan assumptions. Therefore, the "Without Project" scenario does not preclude additional approved but not constructed development at Hoag. Rather, it assumes that Hoag development would occur consistent with the 1992 Master Plan assumptions. The Newport Beach Traffic Model "Constrained" network was used for the 2015 analysis. Key components of this network are identified below under Traffic Study Methodology.

***Year 2015 With Proposed Master Plan Update Project:*** This is an analysis of future traffic conditions in 2015 that could be expected to result from regional growth, related projects, and buildout of Hoag under the proposed Master Plan Update assumptions. The Newport Beach Traffic Model "Constrained" network was used for 2015 analysis.

***Year 2025 Without Project (Existing 1992 Master Plan)*:** This scenario projects future traffic conditions in 2025 (General Plan buildout) which could be expected to result from regional growth and related projects, as well as buildout of Hoag under the 1992 Master Plan assumptions. As noted above, both the "Without Project" and "With Proposed Master Plan Update Project" scenarios assume additional development at Hoag. The differences relate to whether the approved but not constructed development would occur consistent with the 1992 Master Plan or the proposed Master Plan Update for Hoag. The Newport Beach Traffic Model "Buildout" network (also known as the currently adopted "General Plan Baseline" network) was used for the 2025 analysis. Differences between the "Constrained" and Buildout" network are identified below under Traffic Study Methodology.

***Year 2025 With Proposed Master Plan Update Project:*** This 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 proposed Master Plan Update Project scenario. The Newport Beach Traffic Model "Buildout" network (also known as the currently adopted "General Plan Baseline" network) was used for the 2025 analysis.

## Traffic Study Methodology

A two-step process is used to develop Project traffic forecasts. The first step is to identify Project traffic generation which estimates the total arriving and departing traffic at the Project area on a peak period and daily basis. The second step in the forecasting process is the use of the current Newport Beach Traffic Model to complete the assignment by which Project-generated trips are allocated to specific links and intersections on the street system. Modeling, which was conducted by Urban Crossroads, Inc., produced the Project-generated forecasts at each of the 15 key intersections in Newport Beach during the AM and PM peak periods; modeling was also used to extrapolate Project traffic volumes for the nine intersections in Costa Mesa. The Project traffic generation estimates were provided to Urban Crossroads, Inc. for input to the current Newport Beach Traffic Model and were used as the basis for the Project traffic assignment on the street system using the City of Newport Beach's model. The Newport Beach Traffic Model "Constrained" network was used for 2015 analysis and the City's "Buildout" network (also known as the City's currently adopted "General Plan Baseline" network) was used for 2025 analysis.

Key roadway changes reflected in the Constrained (versus Baseline) analysis are:

- No extension of State Route 55 (SR-55)
- No widening of West Coast Highway through Mariner's Mile
- No extension of 19$^{th}$ Street across the Santa Ana River
- No widening of Jamboree Road north of Ford Road

### *Intersection Level of Service Methodology*

Roadway performance is most often controlled by the performance of intersections, specifically during peak traffic periods. This is because traffic control at intersections interrupts traffic flow that would otherwise be relatively unimpeded except for the influences of on-street parking, access to adjacent land uses, and/or other factors resulting in vehicle interaction between intersections. For this reason, this traffic analysis focuses on peak period operating conditions for key intersections (rather than roadway segments) during the morning and evening commute peak hours (between 7:00 and 9:00 AM and 4:00 and 6:00 PM) on a typical weekday.

Operating conditions at intersections are typically described in terms of a "level of service" (LOS). Level of Service is a qualitative measure of a facility's operating performance and is described with a letter designation from A to F, with LOS A representing the best operating conditions and LOS F the worst. The Cities of Newport Beach and Costa Mesa have adopted LOS D as the peak hour operating standard for intersection locations. For signalized intersections, an Intersection Capacity Utilization (ICU) value less than or equal to 0.90 satisfies both Cities' standards.

Based upon City of Newport Beach and City of Costa Mesa guidelines, the ICU methodology was used to determine the volume-to-capacity (V/C) relationship for an intersection (based upon the individual V/C ratios for key conflicting traffic movements) and that intersection's corresponding level of service. By assuming 1,600 vehicles per hour per lane (vphpl) as the practical capacity for through lanes, left-turn and right-turn lanes, the ICU method directly relates traffic demand to the available capacity (an ICU allowance for yellow light signal time is not required by either City's guidelines). The resulting ICU numerical value represents the greatest green light signal time requirements for the entire intersection. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

## 3.2.3 EXISTING CONDITIONS

### Existing (2007)

An inventory of the street system adjacent to Hoag was prepared to describe existing traffic conditions. Exhibit 3.2-2 depicts the existing physical characteristics of the streets, including lane configurations and traffic control at intersections, the number of travel lanes, the posted speed limits, and the median types along roadways.

### Trip Generation

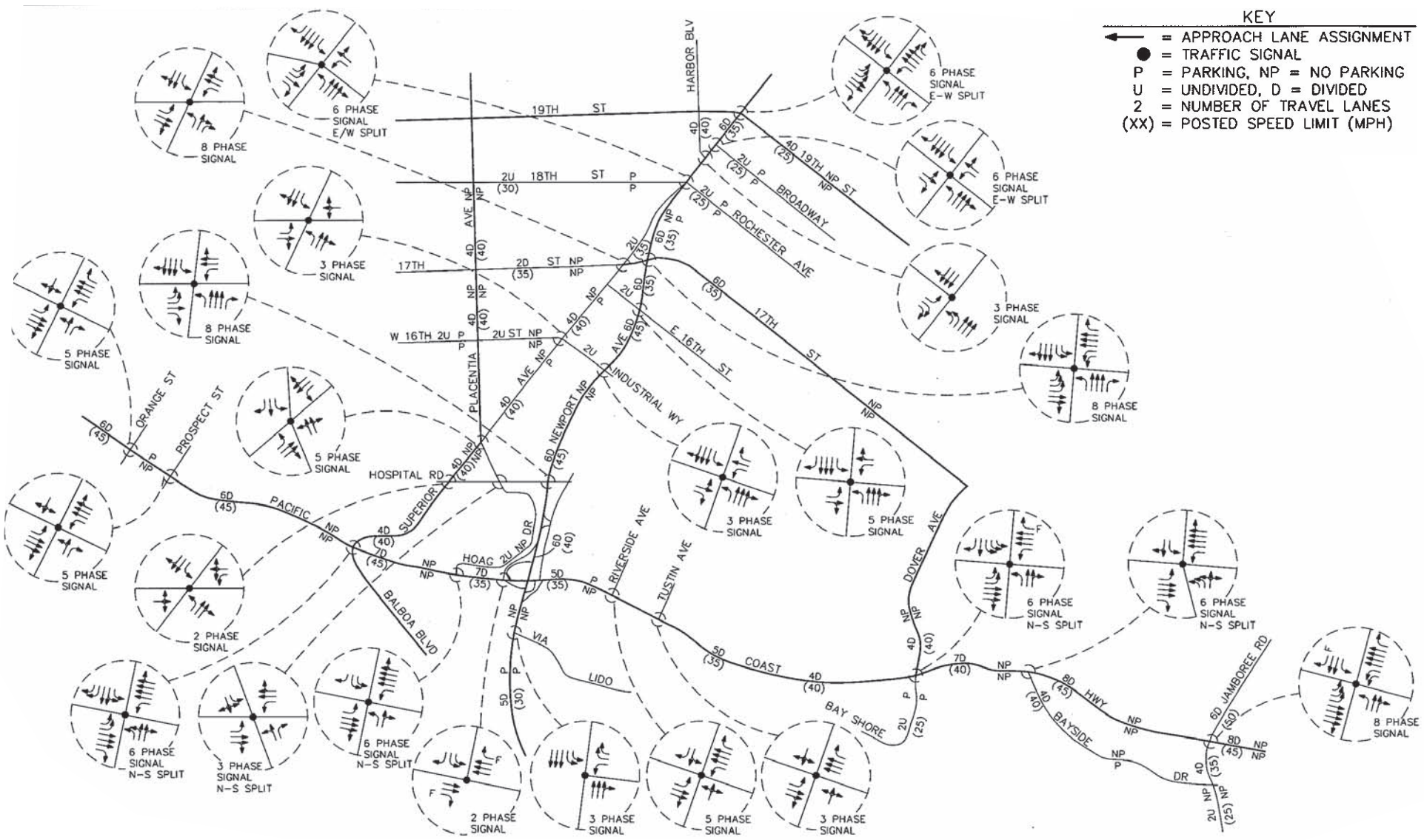
As an existing land use, Hoag currently generates traffic. Table 3.2-1 identifies the existing daily trips and trips occurring during the AM and PM peak periods. Based on trip generation rates, Hoag currently generates 13,988 daily trips with 989 AM peak period trips and 953 PM peak period trips. Of these trips, the Upper Campus generates 11,312 daily trips with 738 AM peak period trips and 701 PM peak period trips. The Lower Campus generates 2,676 daily trips with 251 AM peak period trips and 252 PM peak period trips.

**TABLE 3.2-1**
**EXISTING TRIP GENERATION**

| Location | Size | | Daily Trips | AM Peak Period | PM Peak Period |
|---|---|---|---|---|---|
| | GSF | Beds[b] | | | |
| Inpatient/Inpatient South Building | 643,436 | 409 | 10,552 | 666 | 630 |
| Outpatient (Women's Pavilion) | 15,392 | 0 | 526 | 50 | 50 |
| Outpatient (James Irvine Expansion) | 800 | 0 | 27 | 2 | 3 |
| Outpatient (Cardiac Services Building 1995) | 5,544 | 0 | 190 | 18 | 17 |
| Outpatient (MRI Waiting) | 500 | 0 | 17 | 2 | 1 |
| Support (Women's Pavilion)[a] | 27,114 | 0 | 0 | 0 | 0 |
| Support (Emergency Generator Addition)[a] | 5,335 | 0 | 0 | 0 | 0 |
| Outpatient (South Building) | 0 | 0 | 0 | 0 | 0 |
| Support (South Building)[a] | 0 | 0 | 0 | 0 | 0 |
| Outpatient (Imaging/ECU Expansion) | 0 | 0 | 0 | 0 | 0 |
| ***Upper Campus Total*** | ***698,121*** | ***409*** | ***11,312*** | ***738*** | ***701*** |
| Outpatient (Cancer Center) | 65,000 | 0 | 2,222 | 208 | 209 |
| Outpatient (Conference Center) | 13,270 | 0 | 454 | 43 | 43 |
| Support (Conference Center)[a] | 77,864 | 0 | 0 | 0 | 0 |
| Support (Child Care Center)[a] | 7,800 | 0 | 0 | 0 | 0 |
| Support (Cogeneration Building)[a] | 24,215 | 0 | 0 | 0 | 0 |
| Outpatient | 0 | 0 | 0 | 0 | 0 |
| Outpatient (Outpatient Building) | 0 | 0 | 0 | 0 | 0 |
| Outpatient (Medical Office Building) | 0 | 0 | 0 | 0 | 0 |
| Support (Child Care Center Expansion)[a] | 0 | 0 | 0 | 0 | 0 |
| ***Lower Campus Total*** | ***188,149*** | ***0*** | ***2,676*** | ***251*** | ***252*** |
| ***Upper + Lower Campus*** | ***886,270*** | ***409*** | ***13,988*** | ***989*** | ***953*** |

[a] Ancillary uses under the "Support" category do not generate additional trips.
[b] "beds" refers to inpatient hospital beds

Source: Linscott, Law & Greenspan Engineers 2007.




# Existing Roadway Conditions and Intersection Controls

Exhibit 3.2-2

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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## Intersection Volumes

ICU values and the corresponding levels of service for the traffic study area are identified in Table 3.2-2. Existing AM and PM peak period intersection turning movement volumes for the traffic study area intersections are depicted in Exhibits 3.2-3 and 3.2-4, respectively. Table 3.2-2 shows that all intersections are operating at an acceptable level of service (i.e., LOS D or better), with the exception of Superior Avenue/17th Street (#19 in table below) intersection in the City of Costa Mesa, which operates at a deficient LOS E during the AM peak period.

**TABLE 3.2-2**
**EXISTING (2007) LEVELS OF SERVICE/ICU**

| Intersections | Peak Period | ICU | LOS |
|---|---|---|---|
| **City of Newport Beach** | | | |
| 1. Orange Street/West Coast Highway | AM | 0.64 | B |
| | PM | 0.69 | B |
| 2. Prospect Street/West Coast Highway | AM | 0.77 | C |
| | PM | 0.65 | B |
| 3. Balboa Blvd.-Superior Ave./West Coast Highway | AM | 0.75 | C |
| | PM | 0.76 | C |
| 4. Riverside Avenue/West Coast Highway | AM | 0.74 | C |
| | PM | 0.78 | C |
| 5. Tustin Avenue/West Coast Highway | AM | 0.74 | C |
| | PM | 0.59 | A |
| 6. Bay Shore Drive-Dover Drive/West Coast Highway | AM | 0.74 | C |
| | PM | 0.79 | C |
| 7. Bayside Drive/East Coast Highway | AM | 0.74 | C |
| | PM | 0.65 | B |
| 8. Jamboree Road/East Coast Highway | AM | 0.75 | C |
| | PM | 0.78 | C |
| 9. Newport Boulevard/Via Lido | AM | 0.41 | A |
| | PM | 0.46 | A |
| 10. Newport Boulevard/Hospital Road | AM | 0.55 | A |
| | PM | 0.68 | B |
| 11. Placentia Avenue/Superior Avenue | AM | 0.60 | A |
| | PM | 0.55 | A |
| 12. Newport Boulevard Southbound Off-Ramp/West Coast Highway | AM | 0.80 | C |
| | PM | 0.65 | B |
| 13. Superior Avenue/Hospital Road | AM | 0.68 | B |
| | PM | 0.62 | B |
| 14. Hoag Drive-Placentia Avenue/Hospital Road | AM | 0.37 | A |
| | PM | 0.57 | A |
| 15. Hoag Drive/West Coast Highway | AM | 0.48 | A |
| | PM | 0.45 | A |

**TABLE 3.2-2 (Continued)**
**EXISTING (2007) LEVELS OF SERVICE/ICU**

| Intersections | Peak Period | ICU | LOS |
|---|---|---|---|
| **City of Costa Mesa** | | | |
| 16. Superior Avenue/16th Street-Industrial Way | AM | 0.42 | A |
| | PM | 0.42 | A |
| 17. Newport Boulevard/Industrial Way | AM | 0.57 | A |
| | PM | 0.55 | A |
| 18. Newport Boulevard/16th Street | AM | 0.50 | A |
| | PM | 0.49 | A |
| 19. Superior Avenue/17th Street | **AM** | **0.90** | **E** |
| | PM | 0.67 | B |
| 20. Newport Boulevard/17th Street | AM | 0.80 | C |
| | PM | 0.82 | D |
| 21. Newport Boulevard/18th Street-Rochester Street | AM | 0.73 | C |
| | PM | 0.88 | D |
| 22. Newport Boulevard/Harbor Boulevard | AM | 0.66 | B |
| | PM | 0.74 | C |
| 23. Newport Boulevard/Broadway Boulevard | AM | 0.60 | A |
| | PM | 0.70 | B |
| 24. Newport Boulevard/19th Street | AM | 0.84 | D |
| | PM | 0.86 | D |

Signalized Intersection Level of Service (LOS) Ranges

| | | |
|---|---|---|
| 0.00 – 0.60 | LOS A | Free Flow |
| › 0.60 – 0.70 | LOS B | Rural Design |
| › 0.70 – 0.80 | LOS C | Urban Design |
| › 0.80 – 0.90 | LOS D | Maximum Urban Design |
| › 0.90 – 1.00 | LOS E | Capacity |
| › 1.00 | LOS F | Forced Flow |

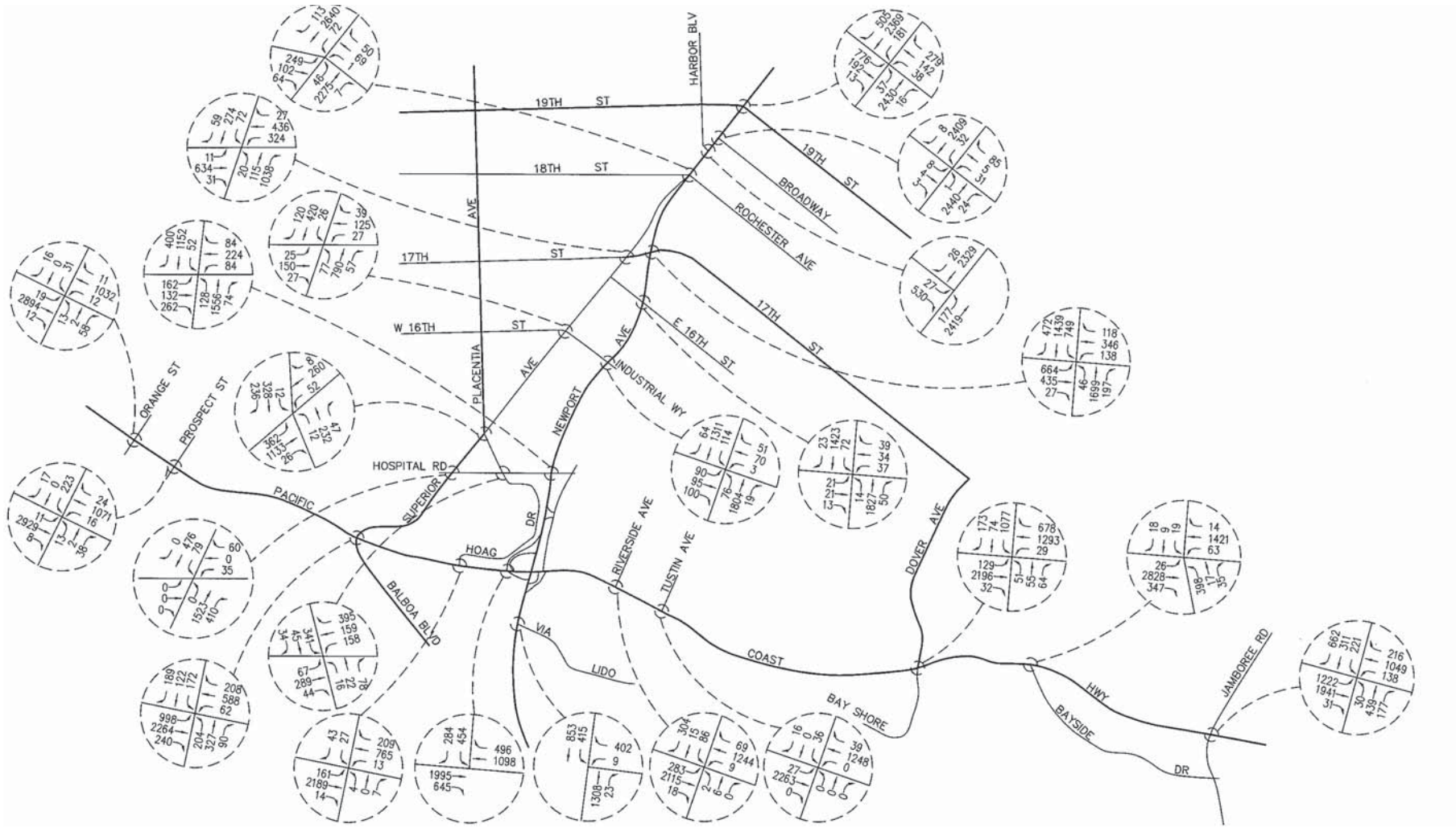
Source: Linscott, Law & Greenspan Engineers 2007.

## Parking

Hoag is required to provide all parking on the site in surface lots, subterranean parking structures, and/or aboveground parking structures. For Upper Campus land uses, surface parking lots are provided for the James Irvine Surgery Center and for the Emergency Care Unit. Two parking structures are provided for hospital visitors, physicians, and employees. Parking on the Lower Campus is provided in surface lots and in one parking structure. Parking requirements are based on building types and the area allocated for land use function, as set forth in the PC Text.

## General Plan Policies

The Circulation Element of the *City of Newport Beach General Plan* addresses the movement of people and goods via automobiles, transit, bicycles, and other modes. It addresses the key issues of trip reduction; parking; bicycle, pedestrian, and equestrian access; traffic flow; transportation improvements and funding; traffic safety; and enhancement of public




# Existing (2007) AM Peak Hour Traffic Volumes

Exhibit 3.2-3

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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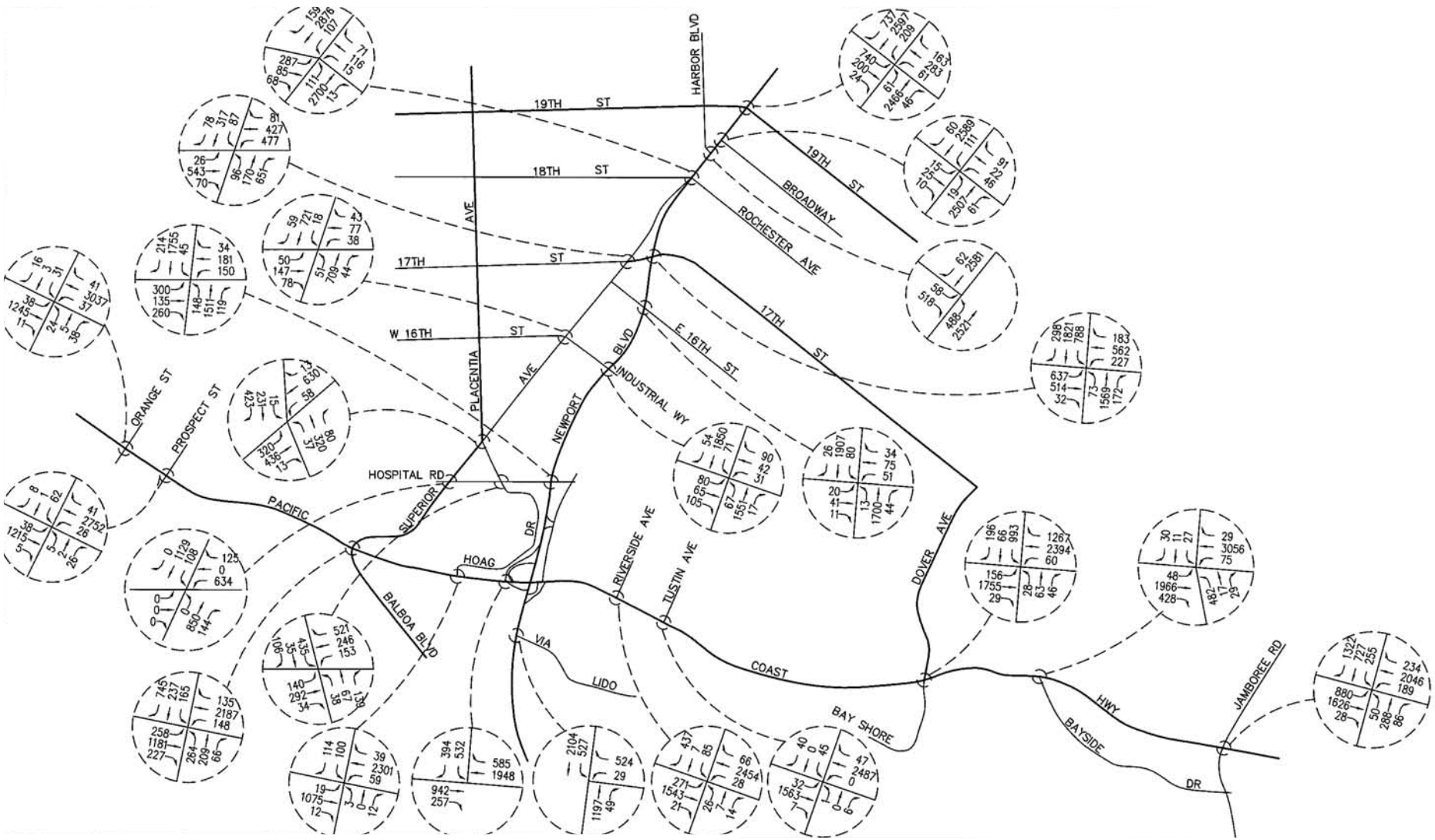


# Existing (2007) PM Peak Hour Traffic Volumes

Exhibit 3.2-4

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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transportation services. Applicable goals and policies from the Circulation Element are provided in Table 3.2-10 later in this section with a project consistency analysis.

### 3.2.4 THRESHOLDS OF SIGNIFICANCE

The following threshold criteria are from the City of Newport Beach Initial Study Checklist. The proposed Master Plan Update Project would result in a significant traffic impact if it would:

Threshold 3.2-1 Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., resulting in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Threshold 3.2-2 Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

Threshold 3.2-3 Result in inadequate emergency access.

Threshold 3.2-4 Result in inadequate parking capacity.

Threshold 3.2-5 Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Consistent with City of Newport Beach and City of Costa Mesa requirements, the following criteria are applied to identify those intersections where significant impacts occur and project-related mitigation is warranted.

- The ICU value under "with project" conditions exceeds 0.90 (LOS E or F).
- The ICU increase attributable to the project is 0.01 or greater.

A significant traffic impact caused by the project is considered to be mitigated when project-related improvements would modify the ICU value to less than or equal to 0.90, or an ICU value to less than or equal to the "without project" ICU.

Consistent with the County Congestion Management Program (CMP), the following criteria applies to CMP intersections:

- The ICU value under "with project" conditions exceeds 0.90 (LOS E), and
- The ICU value attributable to the project is 0.10 or greater.

### 3.2.5 ENVIRONMENTAL IMPACTS

**Proposed Master Plan Update Project**

The Master Plan Update Project proposes the reallocation of up to 225,000 sf from the Lower Campus to the Upper Campus. Although site-specific development is not proposed as a part of the Master Plan Project, for purposes of the CEQA analysis set forth in this SEIR, land use

assumptions have been made in order to adequately address the potential environmental effects associated with the proposed Master Plan Update Project specifically related to the number of inpatient beds which have a different trip generation rate.

Of the 1,343,238 sf of permitted development at Hoag (existing development plus approved but not constructed development), 765,349 sf of uses is allocated to the Upper Campus and 577,889 sf of uses to 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. Under the existing Master Plan, 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. The maximum allowable building area on the Upper Campus would be 990,349 sf (existing plus currently approved but not developed plus the maximum reallocation of 225,000 sf from the Lower Campus), and a maximum allowable building area on the Lower Campus would be 577,889 sf (existing plus 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.

For this SEIR traffic analysis, the Master Plan Update Project assumes the maximum reallocation of 225,000 sf from the Lower Campus to the Upper Campus by 2015. Table 3.2-3 identifies the existing square footage at Hoag, how Hoag would be built out under the existing Master Plan scenario, and how Hoag would be built out under the proposed Master Plan Update assumptions.

## Trip Generation Rates

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors and equations used in the traffic forecasting procedure are from the Seventh Edition of *Trip Generation,* published by the Institute of Transportation Engineers (ITE 2003). Empirical trip rates have been developed for Hoag Hospital's outpatient and inpatient uses as part of the *Hoag Master Plan EIR Traffic Study* (LSA Associates 1991) and Linscott, Law & Greenspan's prior TPO study for Phase II. Table 3.2-4 identifies the Project trip rates used for the proposed Master Plan Update Project. Background data regarding trip rate formulation is provided in Appendix C of this SEIR.

## TABLE 3.2-3
## HOAG DEVELOPMENT ASSUMPTIONS

| Description | Existing | | Existing Master Plan (Additional sf) | | Proposed Master Plan Update (Additional sf) | |
|---|---|---|---|---|---|---|
| | Gross SF | Inpatient Beds[a] | Gross SF | Inpatient Beds | Gross SF | Inpatient Beds[a] |
| **Upper Campus** | | | | | | |
| Inpatient[a] | 643,436 | 409 | 67,228 | 0 | 0 | 76 |
| Outpatient (Women's Pavilion) | 15,392 | 0 | 0 | 0 | 0 | 0 |
| Outpatient (James Irvine Expansion) | 800 | 0 | 0 | 0 | 0 | 0 |
| Outpatient (Cardiac Services Bldg. 1995) | 5,544 | 0 | 0 | 0 | 0 | 0 |
| Outpatient (MRI Waiting) | 500 | 0 | 0 | 0 | 0 | 0 |
| Support (Women's Pavilion) | 27,114 | 0 | 0 | 0 | 0 | 0 |
| Support (Emergency Gen. Addition) | 5,335 | 0 | 0 | 0 | 0 | 0 |
| Inpatient (South Building) (future) | 0 | 0 | 0 | 0 | 131,335 | 0 |
| Outpatient (South Building) (future) | 0 | 0 | 0 | 0 | 26,268 | 0 |
| Support (South Building) (future) | 0 | 0 | 0 | 0 | 120,498 | 0 |
| Outpatient (Imaging/ECU Expansion) (future) | 0 | 0 | 0 | 0 | 14,127 | 0 |
| ***Upper Campus Total (sf)*** | ***698,121*** | ***409[a]*** | ***67,228*** | ***0*** | ***292,228*** | ***76[a]*** |
| **Lower Campus** | | | | | | |
| Outpatient (Cancer Center) | 65,000 | 0 | 0 | 0 | 0 | 0 |
| Outpatient (Conference Center) | 13,270 | 0 | 0 | 0 | 0 | 0 |
| Support (Conference Center)[a] | 77,864 | 0 | 0 | 0 | 0 | 0 |
| Support (Child Care Center)[a] | 7,800 | 0 | 0 | 0 | 0 | 0 |
| Support (Cogeneration Building)[a] | 24,215 | 0 | 0 | 0 | 0 | 0 |
| Outpatient (future) | 0 | 0 | 225,000 | 0 | 0 | 0 |
| Outpatient (Outpatient Building) (future) | 0 | 0 | 110,000 | 0 | 110,000 | 0 |
| Outpatient (Medical Office Building) (future) | 0 | 0 | 50,027 | 0 | 50,027 | 0 |
| Outpatient(Child Care Ctr. expansion) (future) | 0 | 0 | 4,713 | 0 | 4,713 | 0 |
| ***Lower Campus Total (sf)*** | ***188,149*** | ***0*** | ***389,740*** | ***0*** | ***164,740*** | ***0*** |
| **Existing Total** | **886,270** | **409[a]** | **0** | **0** | **0** | **0** |
| **Existing Master Plan Buildout** | **0** | **0** | **1,343,238** | **409** | **0** | **0** |
| **Proposed Master Plan Update Buildout** | **0** | **0** | **0** | **0** | **1,343,238** | **485[a]** |

[a] Inpatient beds are inclusive of square footage totals.

Source: Linscott, Law & Greenspan Engineers 2007.

## TABLE 3.2-4
## TRIP GENERATION RATES

| Description | Daily | AM Peak Period | | | PM Peak Period | | |
|---|---|---|---|---|---|---|---|
| | | In | Out | Total | In | Out | Total |
| Inpatient: Trips per Bed | 25.80 | 0.92 | 0.71 | **1.63** | 0.50 | 1.04 | **1.54** |
| Outpatient: Trips per 1,000 sf | 34.19 | 1.79 | 1.41 | **3.20** | 0.97 | 2.25 | **3.22** |
| Source: Linscott, Law & Greenspan Engineers 2007. | | | | | | | |

Traffic generation is based on specific land uses. As previously noted, no site-specific development projects are proposed as a part of the proposed Master Plan Update Project. For CEQA purposes, the traffic analysis identifies the total square footage for Hoag (inclusive of currently approved but not constructed square footage) and correlates to a portion of the square footage reallocation to inpatient hospital beds, specifically 76 inpatient hospital beds. Trip generation rates for inpatient hospital uses are expressed in terms of "trips per bed," rather than "trips per square feet." The number of beds is a better indication of (or a better correlation to) the trip-making potential of inpatient uses than is square footage. These inpatient "trips per bed" rates account for traffic generated by inpatient drop-off/pick-up activities, inpatient visitors, medical staff, administrative staff, and emergency room-related uses. The proposed update to the Master Plan would not require the Applicant to provide this number of beds nor would it preclude the Applicant from requesting more inpatient hospital beds as long as the square footage allocations set forth in this SEIR are not exceeded and no new environmental impacts would occur. The outpatient trip rates (expressed in terms of "trips per 1,000 sf") account for traffic generated by "stand alone" outpatient facilities at Hoag (i.e., James Irvine Surgery Center and the Cancer Center) and other medical office buildings at Hoag that provide outpatient care and receive medical referrals from the hospital/inpatient facilities at Hoag. Outpatient trip rates include trips by outpatients, outpatient drop-off/pick-up activities, outpatient visitors, medical staff, and administrative staff.

Trip rates were not derived for support services because the majority of traffic generated by support services (i.e., food services, engineering, maintenance, day care, education/conference facilities, and cogeneration facility) was determined by the City of Newport Beach to be the same trips accounted for in one or more of the other land use categories. Therefore, support service facilities are considered internal trip making within Hoag and would not generate additional trips at any key intersections.

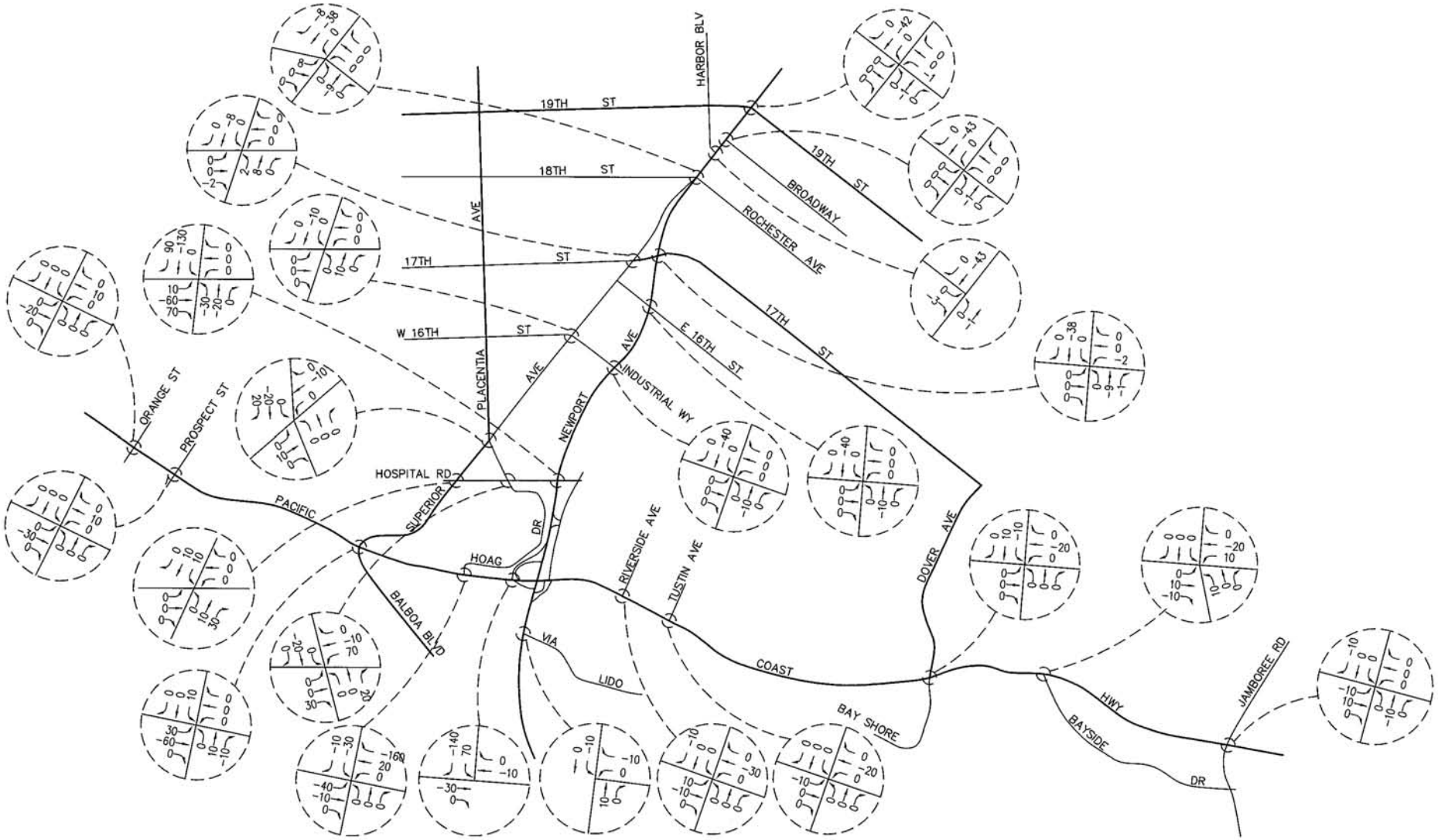
## Impact Analysis

***Threshold 3.2-1:*** ***Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., resulting in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?***

### *Project Trip Generation: Existing Master Plan Compared to Proposed Master Plan Update Project*

Project trip generation was calculated using the proposed land uses and the trip generation rates (Table 3.2-4). The proposed Master Plan Update Project-generated intersection volumes are depicted in Exhibits 3.2-5 and 3.2-6 for the AM and PM peak periods, respectively. Table 3.2-5 compares the existing trip generation for Hoag to two scenarios. The first scenario is buildout of Hoag under the existing Master Plan assumptions. The second scenario is the buildout of Hoag under the proposed Master Plan Update Project assumptions.

Buildout of Hoag under the existing Master Plan assumptions (Table 3.2-3) would generate 27,152 daily trips with 2,222 AM peak period trips and 2,194 PM peak period trips. Of these totals, the Upper Campus would generate 11,312 daily trips with 738 trips in the AM peak period and 701 PM peak period trips. The Lower Campus would generate 15,840 daily trips with 1,484 AM and 1,493 PM peak period trips.




# Proposed Master Plan Update Project AM Peak Hour Traffic Volumes

Exhibit 3.2-5

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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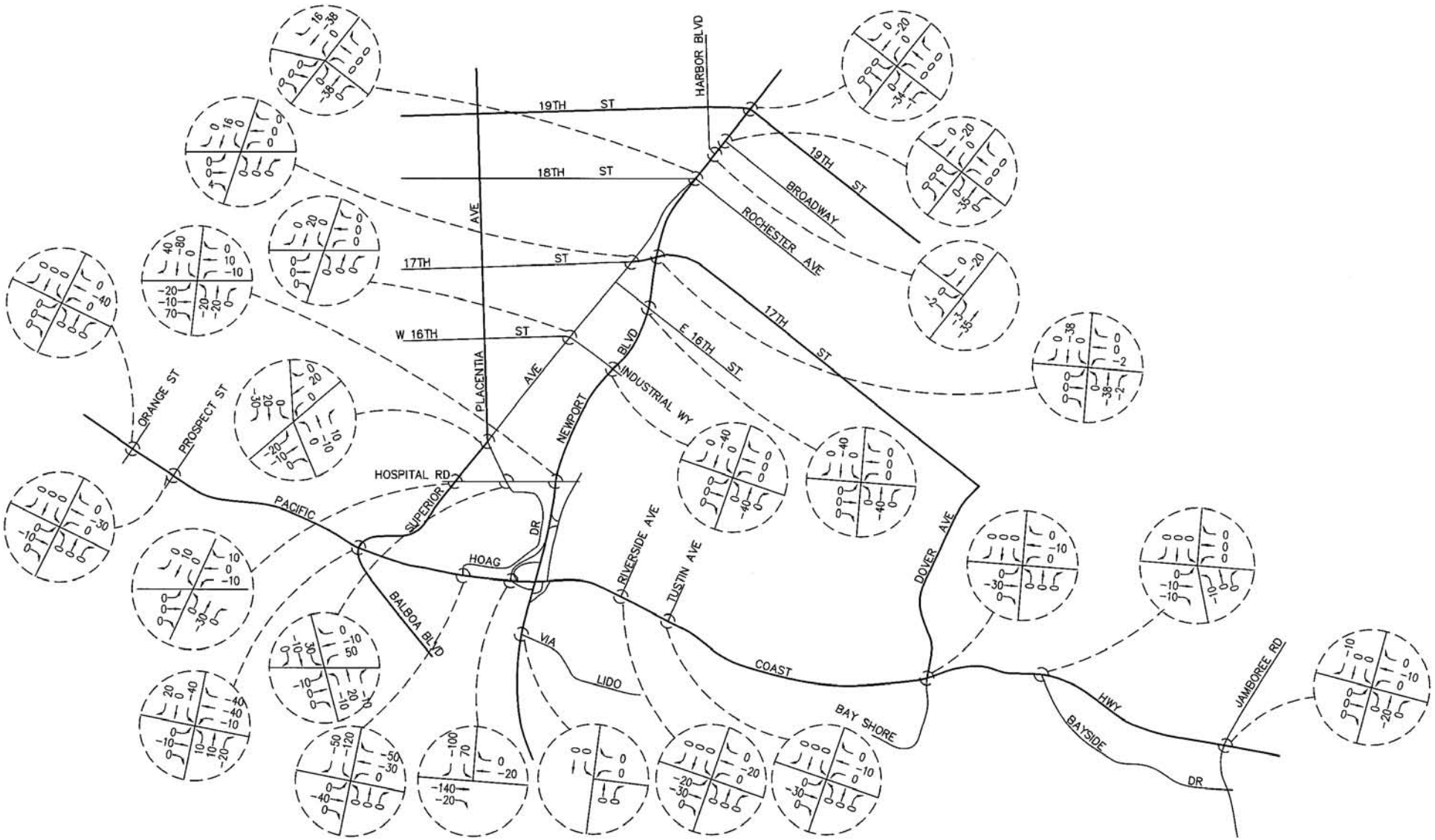



# Proposed Master Plan Update Project PM Peak Hour Traffic Volumes

Exhibit 3.2-6

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex.3.2-6_propPM_081607.pdf

D:/Projects/Newport/J008/Graphics/Ex.3.2-6.ai

## TABLE 3.2-5
## TRIP GENERATION ESTIMATES

| Description | Existing | | | | | | | | | Existing + Existing Master Plan | | | | | | | | | | Existing + Master Plan Update Project | | | | | | | | | | Master Plan Update-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 | 131,335[c] | 774,771 | 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** | **409** | **11,312** | **416** | **322** | **738** | **226** | **475** | **701** | **67,228** | **765,349** | **409** | **11,312** | **416** | **322** | **738** | **226** | **475** | **701** | **292,228** | **990,349** | **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 Ctr.) | 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 | - | 0 | – | – | – | – | – | – | – | – | (7,693) | (403) | (317) | (720) | (218) | (506) | (724) |
| 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 Center 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** | **164,740** | **352,889** | **-** | **8,147** | **427** | **337** | **764** | **232** | **537** | **769** | **(7,693)** | **(403)** | **(317)** | **(720)** | **(218)** | **(506)** | **(724)** |
| **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** | **22,801** | **985** | **770** | **1,755** | **535** | **1,182** | **1,717** | **(4,351)** | **(261)** | **(206)** | **(467)** | **(141)** | **(336)** | **(477)** |

[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 131,335 SF of inpatient square footage (inclusive of 76 new beds) is for the South Building.

Source: Linscott, Law & Greenspan Engineers 2007.

Buildout of Hoag under the proposed Master Plan Update assumptions (reallocation of a maximum of 225,000 sf from the Lower Campus to the Upper Campus) would generate 22,801 daily trips with 1,755 AM peak period trips and 1,717 PM peak period trips. Of these totals, the Upper Campus would generate 14,654 daily trips with 991 AM peak period trips and 948 PM peak period trips. The Lower Campus would generate 8,147 daily trips with 764 AM peak period trips and 769 PM peak period trips.

This proposed reallocation would generate less traffic than development under the existing Master Plan. Outpatient uses typically generate more trips than inpatient uses. Specific to Hoag, prior field studies (per the Phase II TPO traffic study) indicate that the empirical outpatient trip rates for Hoag are 54 percent to 142 percent greater than inpatient trip rates derived from those same traffic generation surveys. Therefore, the reallocation of up to 225,000 sf of the greater, trip-generating outpatient uses from the Lower Campus would cause a major reduction in Lower Campus trips. Adding that same square footage to the Upper Campus as lesser, trip-generating inpatient use (translating to the addition of 76 inpatient beds, totaling 485 beds), some outpatient use (40,395 sf), and 120,498 sf of support uses (which do 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 proposed Master Plan Update Project assumptions. It should be noted that this reduction would be dependent on how much square footage is eventually reallocated from the Lower Campus to the Upper Campus. Therefore, when comparing traffic generation for the proposed Master Plan Update Project to the traffic generation of the existing Master Plan, the Project would not result in a significant traffic generation impact.

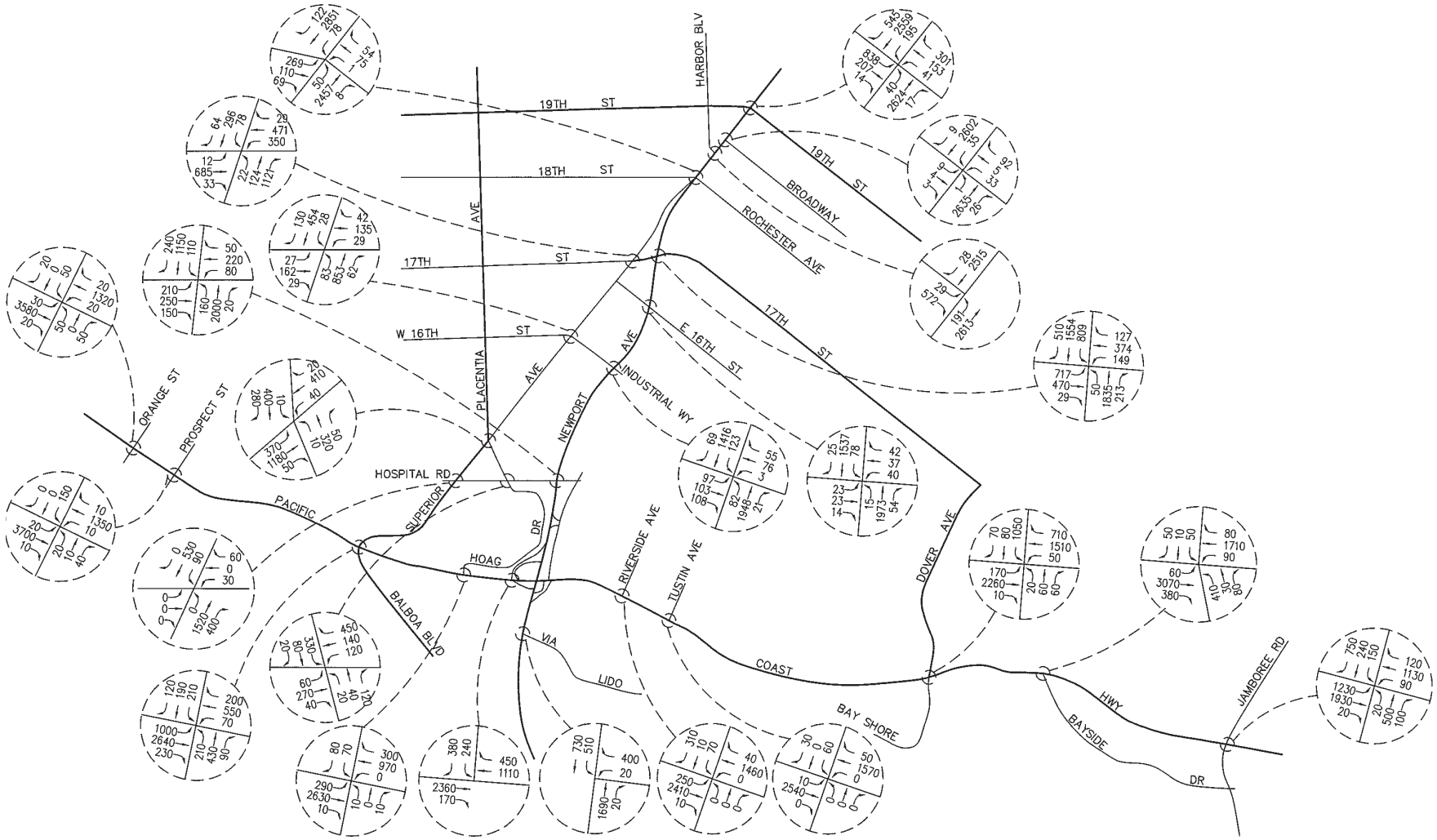
### *Year 2015 Traffic Analysis*

Without Project (Existing Master Plan)

The *Year 2015 Without Project* traffic scenario assumes implementation of regional growth, related cumulative projects, and buildout of Hoag under the existing Master Plan assumptions. For the 15 traffic study area intersections in Newport Beach, Year 2015 traffic projections were developed by Urban Crossroads, Inc. by using the Newport Beach Traffic Model. For the nine City of Costa Mesa intersections, a one percent annual growth rate was applied to existing traffic volumes, per direction from City of Costa Mesa staff.

As previously noted, the "Without Proposed Master Plan Update" assumes buildout of Hoag under the existing Master Plan assumptions. Table 3.2-6 identifies the LOS and ICU volumes for the traffic study area intersections in 2015 without and with the proposed Master Plan Update Project traffic scenarios. Year 2015 intersection volumes are depicted on Exhibits 3.2-7 and 3.2-8 for the AM and PM peak periods, respectively.

As identified on Table 3.2-6, six intersections (three intersections in Newport Beach and three in Costa Mesa) are projected to operate at a deficient LOS E or LOS F in 2015 with implementation of Hoag under the existing Master Plan assumptions. One intersection, Superior Avenue/17$^{th}$ Street (#19) in the City of Costa Mesa, currently operates at a deficient level of service (LOS E) during the AM peak period (Table 3.2-2).




# Year 2015 Without Project (Existing Master Plan) AM Peak Hour Traffic Volumes

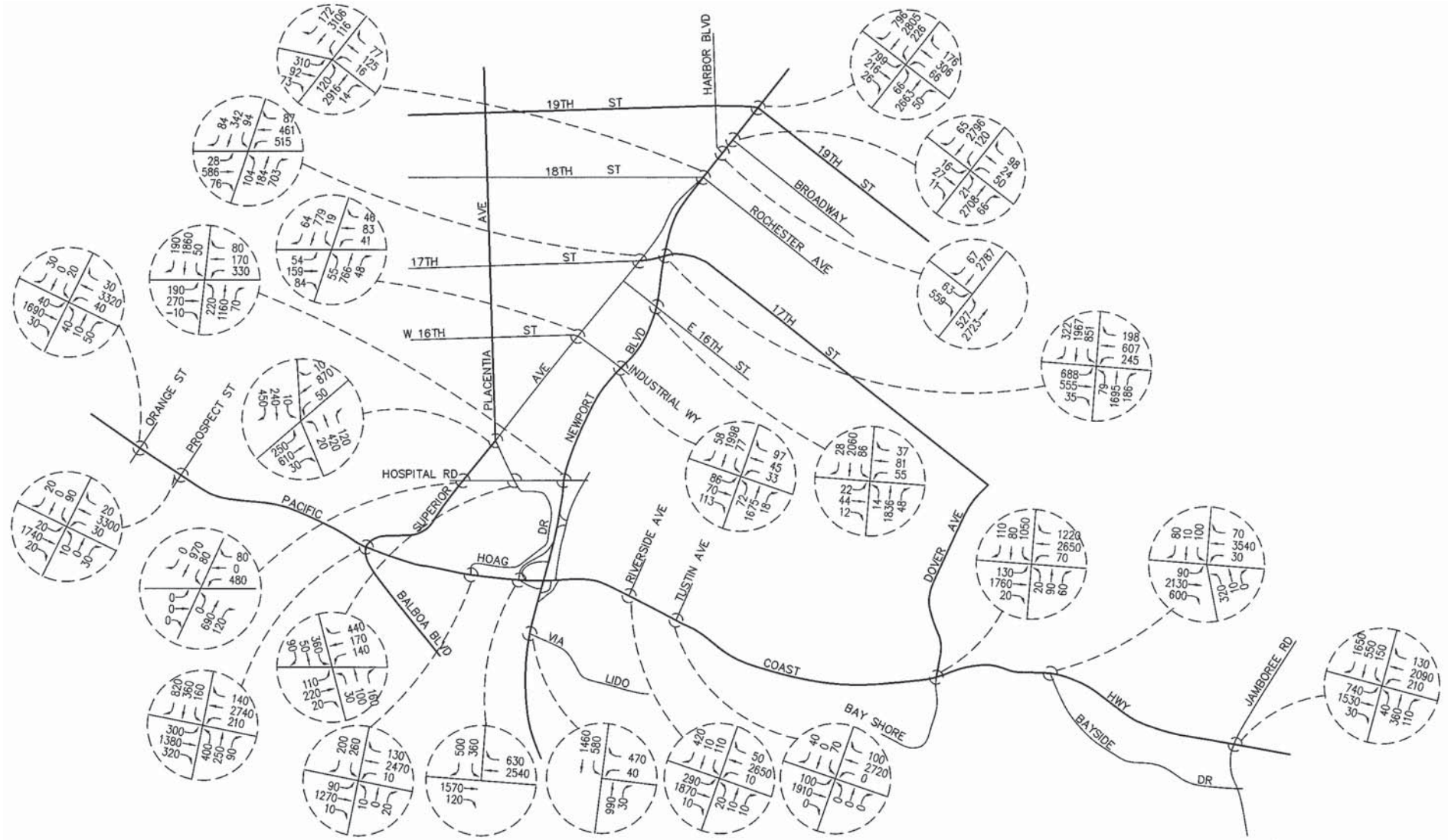
Exhibit 3.2-7

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

R:/Projects/Newport/J008/Graphics/Ex.3.2-7_2015wo_081607.pdf

D:/Projects/Newport/J008/Graphics/Ex.3.2-9.ai




# Year 2015 Without Project (Existing Master Plan) PM Peak Hour Traffic Volumes

Exhibit 3.2-8

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex3.2-8_2015wo_Peak_PM_081607.pdf

D:/Projects/Newport/J008/Graphics/Ex.3.2-10.ai

## TABLE 3.2-6
## YEAR 2015 WITHOUT AND WITH PROPOSED MASTER PLAN UPDATE PROJECT: INTERSECTION LEVELS OF SERVICE

| Key Intersections | Peak Period | Year 2015 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Existing Master Plan | | Proposed Master Plan Update Project | | | |
| | | 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 | 0.86 | 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 | 0.87 | 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 | 0.71 | C | -0.01 | 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 | 0.64 | B | -0.05 | No |
| | **PM** | **0.94** | **E** | **0.91** | **E** | -0.03 | No |
| 11. Placentia Avenue/Superior Avenue | AM | 0.66 | B | 0.64 | B | -0.02 | No |
| | PM | 0.61 | B | 0.61 | B | 0.00 | No |
| 12. Newport Boulevard Southbound Off-Ramp/West Coast Highway | **AM** | **0.98** | **E** | 0.84 | D | -0.14 | No |
| | PM | 0.84 | D | 0.78 | C | -0.06 | 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 | 0.38 | A | -0.01 | No |
| | PM | 0.50 | A | 0.50 | A | 0.00 | No |
| 15. Hoag Drive/West Coast Highway | AM | 0.58 | A | 0.56 | A | -0.02 | No |
| | PM | 0.56 | A | 0.51 | A | -0.05 | No |
| **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 | 0.58 | A | -0.01 | No |
| 18. Newport Boulevard/16th Street | AM | 0.53 | A | 0.53 | A | 0.00 | No |
| | PM | 0.53 | A | 0.53 | A | 0.01 | No |

**TABLE 3.2-6 (Continued)**
**YEAR 2015 WITHOUT AND WITH PROPOSED MASTER PLAN UPDATE**
**PROJECT: INTERSECTION LEVELS OF SERVICE**

| Key Intersections | Peak Period | Year 2015 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Existing Master Plan | | Proposed Master Plan Update Project | | | |
| | | ICU | LOS | ICU | LOS | ICU Contribution | Significant Impact? |
| 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 | 0.88 | 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 | 0.69 | B | -0.02 | No |
| | PM | 0.80 | C | 0.79 | C | -0.01 | No |
| 23. Newport Boulevard /Broadway Boulevard | AM | 0.65 | B | 0.65 | B | 0.00 | No |
| | PM | 0.76 | C | 0.75 | C | -0.01 | No |
| 24. Newport Boulevard/19th Street | **AM** | **0.90** | **E** | **0.90** | **E** | 0.00 | No |
| | **PM** | **0.93** | **E** | **0.92** | **E** | -0.01 | No |
| Source: Linscott, Law & Greenspan Engineers 2007. | | | | | | | |

***City of Newport Beach***

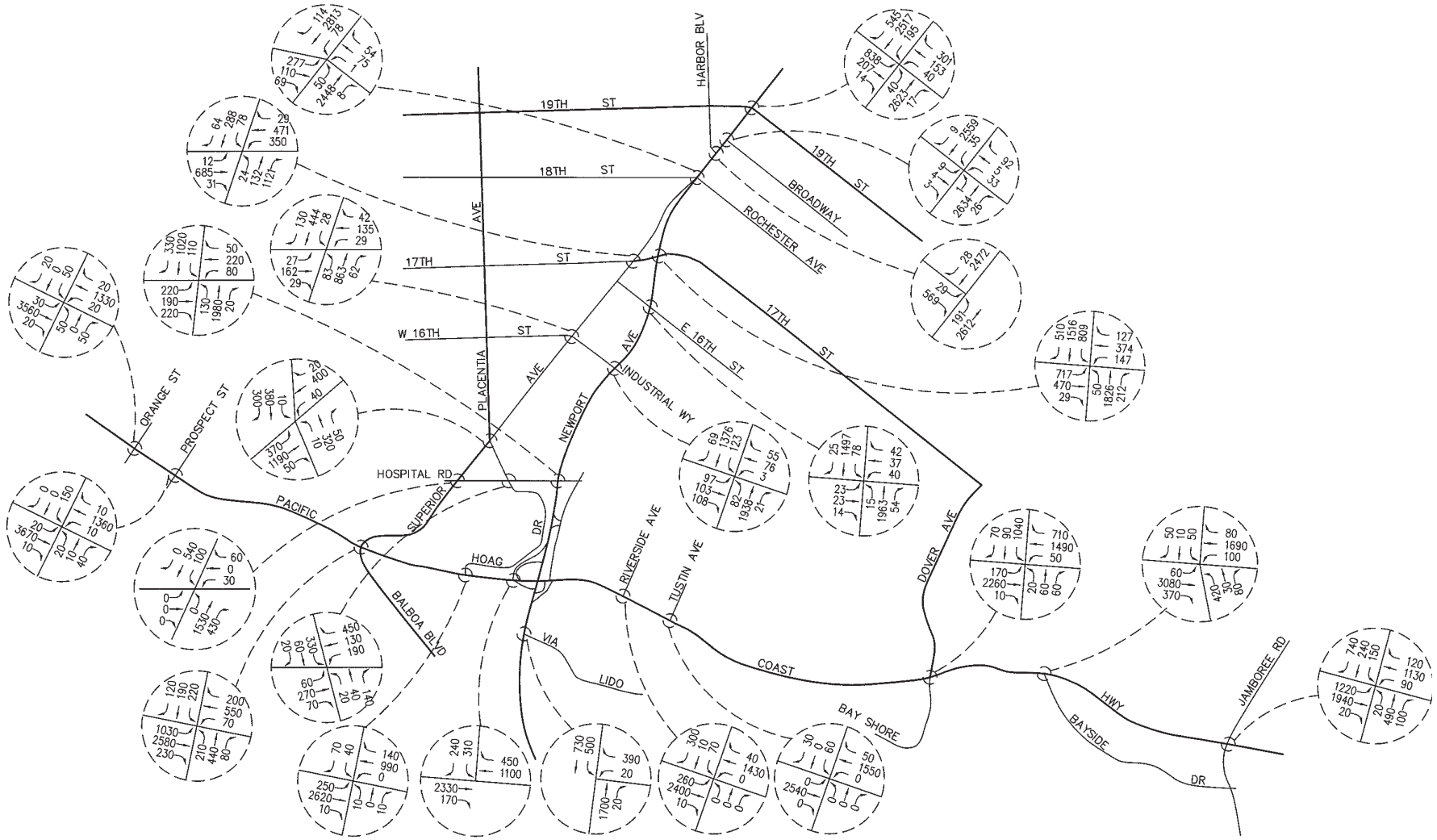
3. Balboa Boulevard-Superior Avenue/West Coast Highway – 0.96, (LOS E) PM peak
10. Newport Boulevard/Hospital Road – 0.94 (LOS E), PM peak
12. Newport Boulevard Southbound Off-Ramp/West Coast Highway – 0.98 (LOS E), AM peak

***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

With Proposed Master Plan Update Project

This traffic scenario assesses the potential traffic impacts of the proposed Master Plan Update Project to determine if the reallocation of square footage from the Lower Campus to the Upper Campus changes the impact conclusions for 2015. *Year 2015 With Master Plan Update Project* intersection volumes are depicted on Exhibits 3.2-9 and 3.2-10 for the AM peak period and PM peak period, respectively. Table 3.2-6 shows that implementation of the proposed Master Plan Update Project would not change the LOS at five of the intersections (two intersections in Newport Beach and three intersections in Costa Mesa) that are projected to operate at a deficient level of service in 2015 with the existing Master Plan. Furthermore, two of the five deficient intersections, Newport Boulevard/Hospital Road (#10) and Newport Boulevard/18th Street–Rochester Street (#21), would experience an improved ICU. These improvements are




# Year 2015 With Proposed Master Plan Update Project AM Peak Hour Traffic Volumes

Exhibit 3.2-9

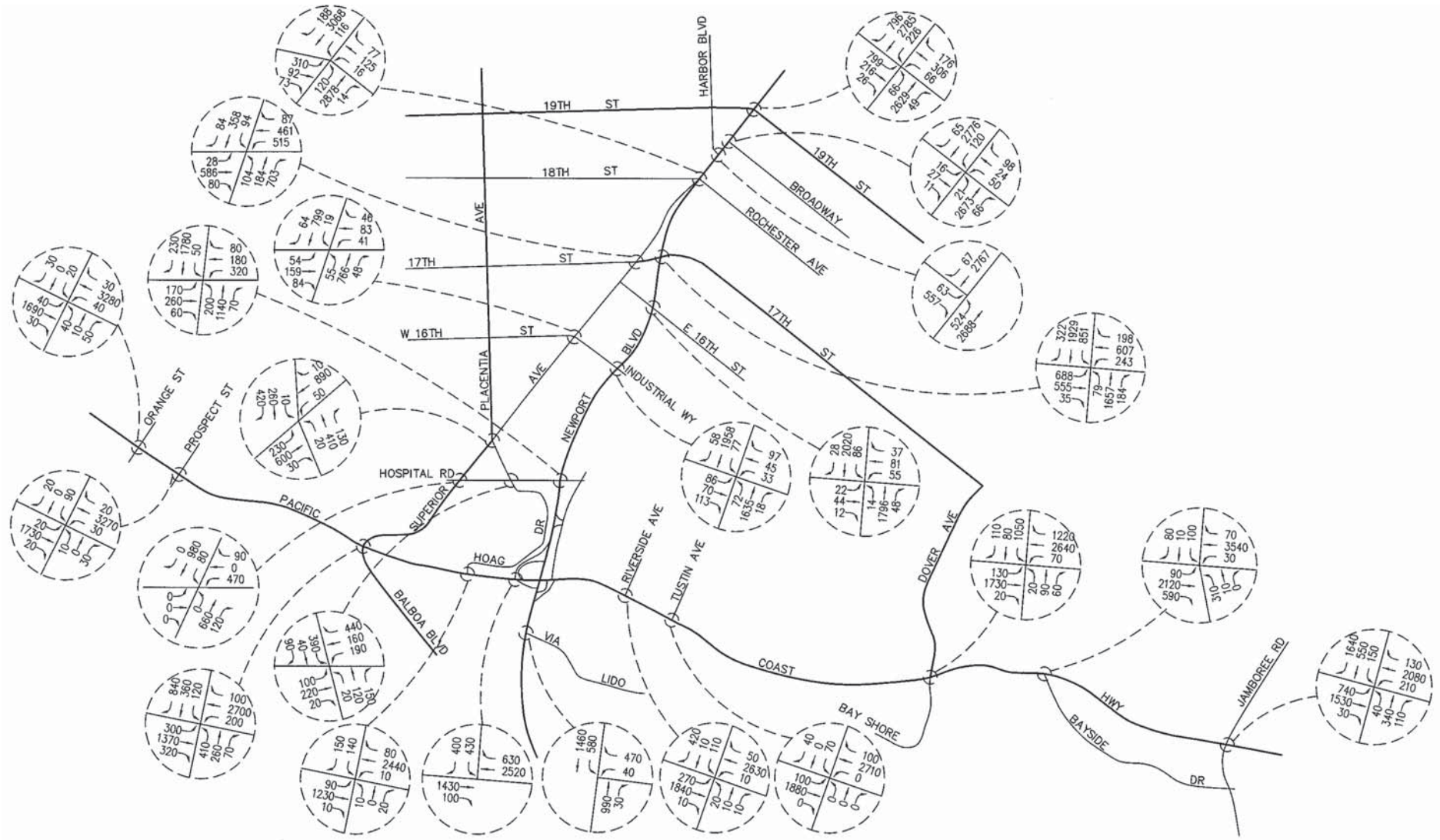
*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex.3.2-9_2015wPrjctAM_081607.pdf

D:/Projects/Newport/J008/Graphics/Ex.3.2-11.ai




# Year 2015 With Proposed Master Plan Update Project PM Peak Hour Traffic Volumes

Exhibit 3.2-10

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex.3.2-10_2015PEAK_081607.pdf

D:/Projects/Newport/J008/Graphics/Ex.3.2-10_081607.ai

associated with the reallocation of square footage from the Lower Campus to the Upper Campus. The sixth intersection, Newport Boulevard southbound off-ramp/West Coast Highway, would operate under an improved level of service (from LOS E to LOS D in the AM peak period) with the proposed Master Plan Update Project because of the square footage reallocation. Therefore, the proposed square footage reallocation proposed as a part of the Master Plan Update Project would not result in a significant traffic impact in 2015 when compared to the 1992 Master Plan project.

***Year 2025 (General Plan Buildout)***

Without Project (Existing Master Plan)

The *Year 2025 Without Project* scenario projects future traffic conditions in 2025 (General Plan buildout) which could be expected to result from regional growth and related projects in 2025 with Hoag built out consistent with the existing Master Plan. For the 15 traffic study area intersections located in Newport Beach, these traffic scenario forecasts were made using the Newport Beach Traffic Model. The City of Costa Mesa provided forecasts for its intersections.

The table identifies that six intersections are projected to operate at a deficient level of service during one or both peak periods. Table 3.2-7 identifies the ICU volumes and levels of service for the traffic study area intersections for the 2025 traffic scenario. *Year 2025 Without Project* intersection volumes are depicted on Exhibits 3.2-11 and 3.2-12 for the AM peak period and PM peak period, respectively.

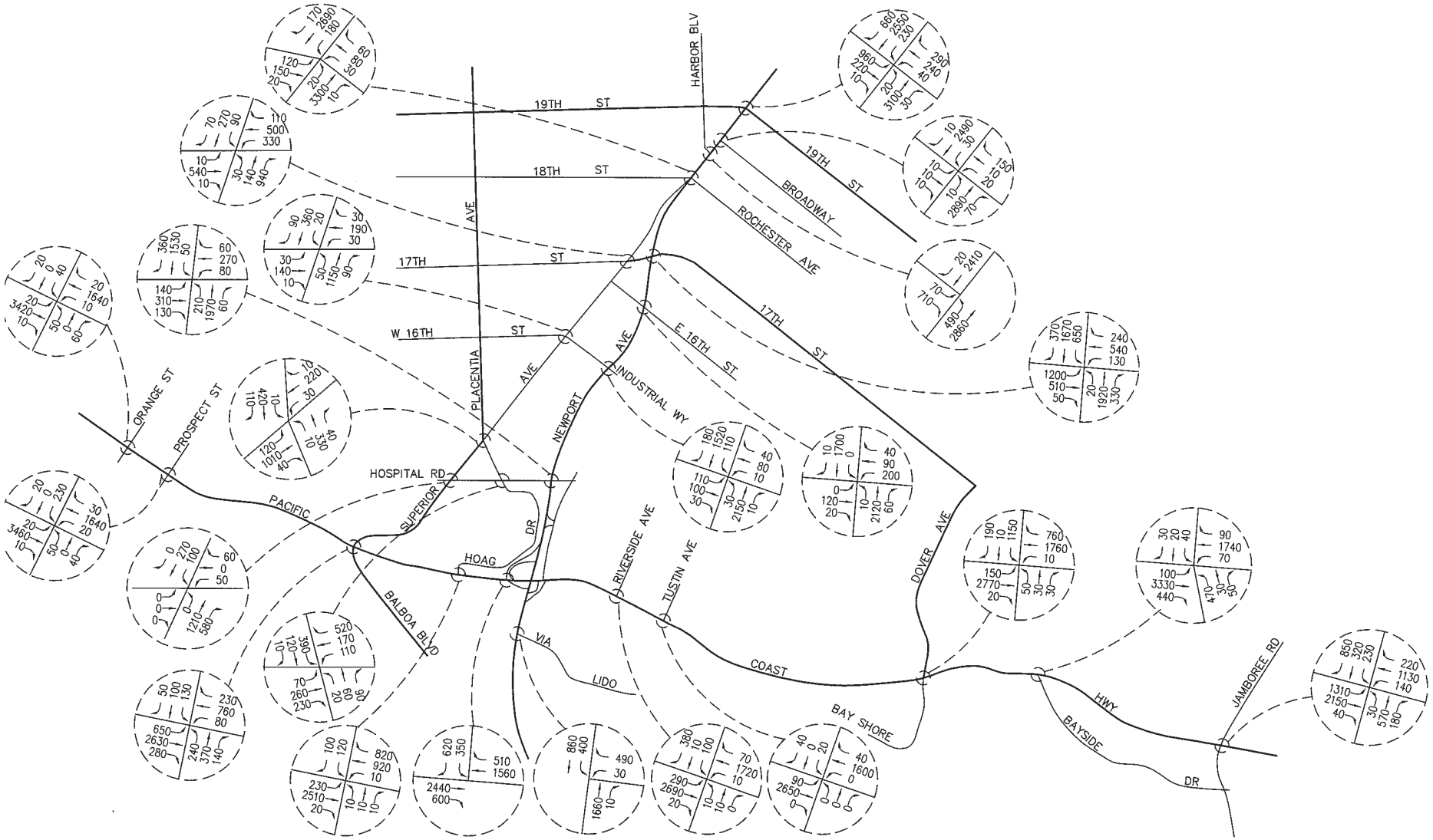
***City of Newport Beach***

4. Riverside Avenue/West Coast Highway ─ 0.92 (LOS E), AM peak period; 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/17$^{th}$ Street ─ 0.97 (LOS E), AM peak period; 0.96 (LOS E), PM peak
21. Newport Boulevard/18$^{th}$ Street–Rochester Avenue ─ 0.99 (LOS E), AM peak; 0.97 (LOS E), PM peak
24. Newport Boulevard/19$^{th}$ Street ─ 1.06 (LOS F), AM peak period; 1.03 (LOS F), PM peak

It should be noted that of the six intersections, four of these intersections (Nos. 12, 19, 21, and 24) are projected to operate at a deficient level of service in 2025 with implementation of the existing Master Plan.




# Year 2025 Without Project (Existing Master Plan) AM Peak Hour Traffic Volumes

Exhibit 3.2-11

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

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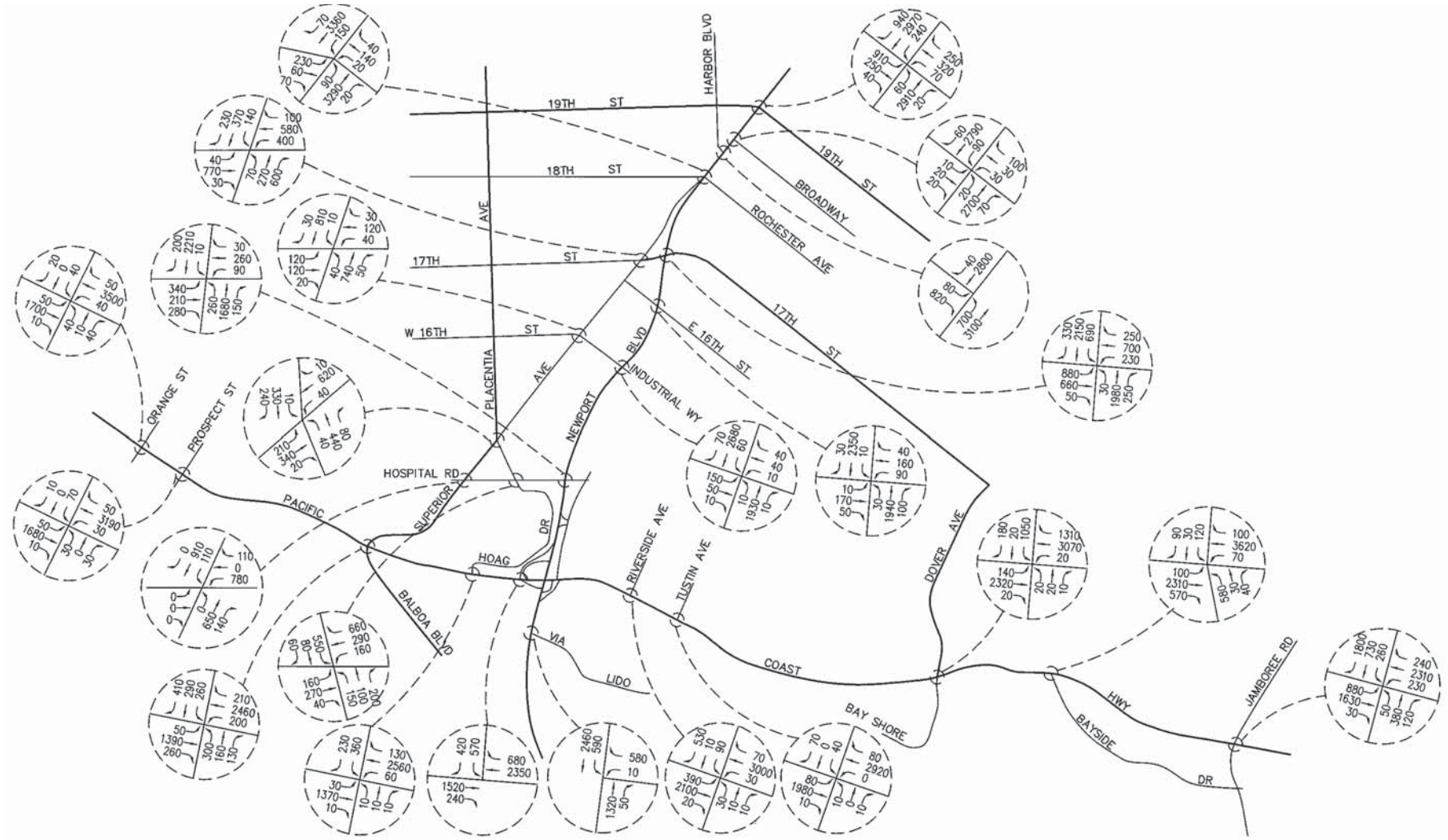
D:/Projects/Newport/J008/Graphics/Ex.3.2-11_081707.ai




# Year 2025 Without Project (Existing Master Plan) PM Peak Hour Traffic Volumes

Exhibit 3.2-12

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex.3.2-12_2025woProject_081607.pdf

D:/Projects/Newport/J008/Graphics/Ex.3.2-12_081607.ai

## TABLE 3.2-7
## YEAR 2025 WITHOUT AND WITH PROPOSED MASTER PLAN UPDATE PROJECT: INTERSECTION LEVELS OF SERVICE

| Intersections | Peak Period | Year 2025 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Existing Master Plan | | Proposed Master Plan Update Project | | | |
| | | 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 | B | 0.79 | C | -0.01 | No |
| 2. Prospect Street/West Coast Highway | AM | 0.89 | D | 0.88 | D | -0.01 | No |
| | PM | 0.76 | C | 0.75 | C | -0.01 | No |
| 3. Balboa Boulevard-Superior Avenue/West Coast Highway | AM | 0.84 | D | 0.82 | D | -0.02 | No |
| | PM | 0.78 | C | 0.75 | C | -0.03 | 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 | D | 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 | 0.83 | 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 | 0.67 | B | -0.10 | No |
| | PM | 0.86 | D | 0.84 | D | -0.02 | No |
| 11. Placentia Avenue/Superior Avenue | AM | 0.61 | B | 0.59 | A | -0.02 | No |
| | PM | 0.53 | A | 0.54 | A | 0.01 | No |
| 12. Newport Boulevard Southbound Off-Ramp/West Coast Highway | **AM** | **1.15** | **F** | **1.00** | **F** | -0.15 | No |
| | PM | 0.75 | C | 0.69 | B | -0.06 | No |
| 13. Superior Avenue/Hospital Road | AM | 0.66 | B | 0.67 | B | 0.01 | No |
| | PM | 0.59 | A | 0.59 | A | 0.00 | No |
| 14. Hoag Drive-Placentia Avenue/ Hospital Road | AM | 0.47 | A | 0.47 | A | 0.00 | No |
| | PM | 0.77 | B | 0.77 | C | 0.00 | No |
| 15. Hoag Drive/West Coast Highway | AM | 0.58 | C | 0.56 | A | -0.02 | No |
| | PM | 0.58 | B | 0.53 | A | -0.05 | No |
| **City of Costa Mesa** | | | | | | | |
| 16. Superior Avenue/16$^{th}$ 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 | 0.69 | B | -0.01 | No |

**TABLE 3.2-7**
**YEAR 2025 WITHOUT AND WITH PROPOSED MASTER PLAN UPDATE PROJECT: INTERSECTION LEVELS OF SERVICE**

| Intersections | Peak Period | Year 2025 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Existing Master Plan | | Proposed Master Plan Update Project | | | |
| | | ICU | LOS | ICU | LOS | ICU Contribution | Significant Impact? |
| 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** | **0.95** | **E** | -0.01 | No |
| 21. Newport Boulevard/18th Street-Rochester Street | **AM** | **0.99** | **E** | **0.98** | **E** | -0.01 | No |
| | **PM** | **0.97** | **E** | **0.96** | **E** | -0.01 | No |
| 22. Newport Boulevard/Harbor Boulevard | AM | 0.73 | C | 0.71 | C | -0.02 | 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** | **1.02** | **F** | -0.01 | No |

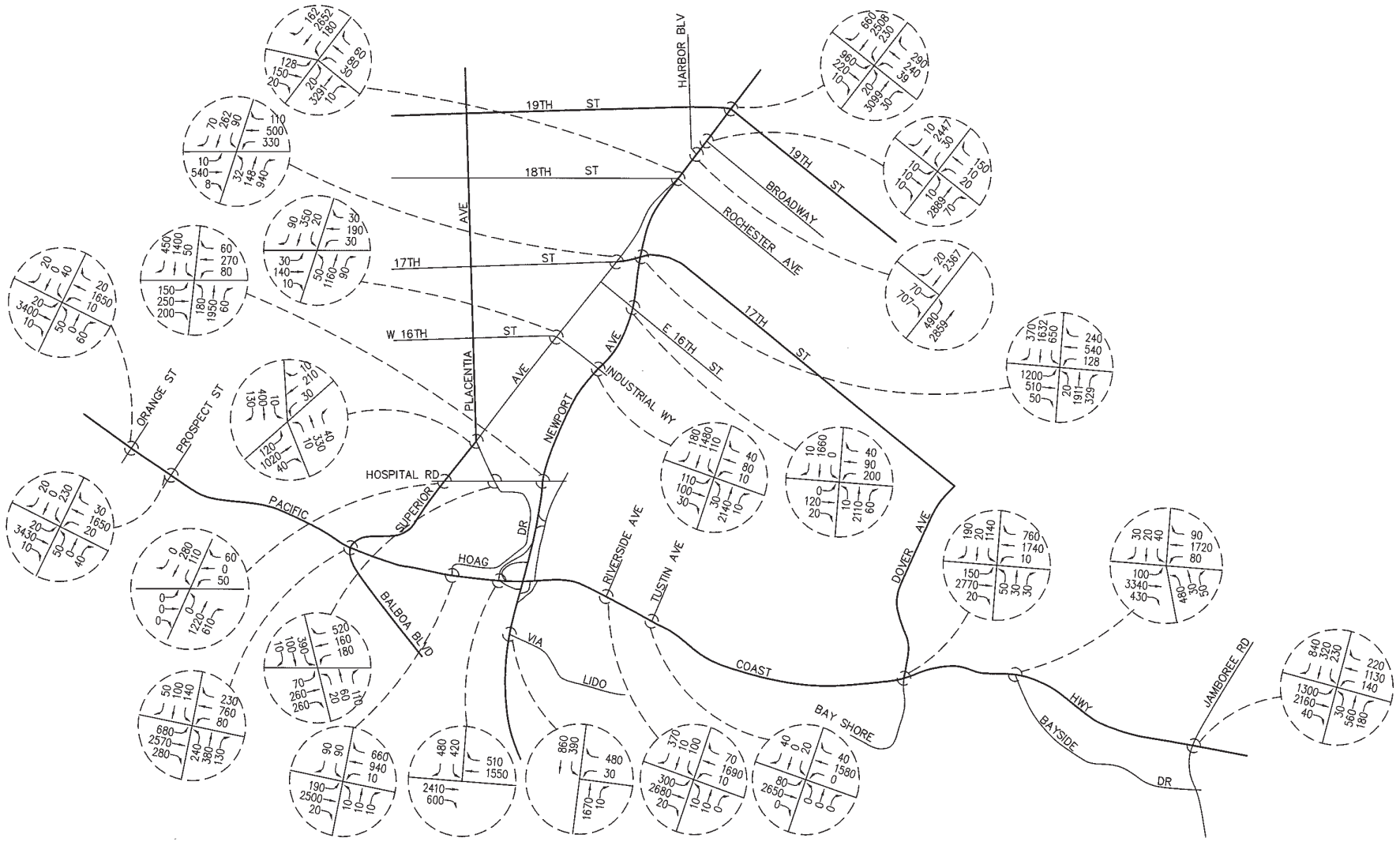
Source: Linscott, Law & Greenspan Engineers 2007.

With Proposed Master Plan Update Project

The *Year 2025 With Proposed Master Plan Update Project* traffic scenario assumes buildout of Hoag under the proposed Master Plan Update assumptions rather than the existing Master Plan. The purpose of this scenario is to determine whether the proposed project would change traffic conditions in the traffic study area when compared to the existing Master Plan. *Year 2025 With Proposed Master Plan Update Project* intersection volumes are depicted on Exhibits 3.2-13 and 3.2-14 for the AM peak period and PM peak period, respectively. As identified in Table 3.2-7 and discussed above, six intersections would operate at a deficient level of service during one or both peak periods. The level of service at these intersections would not further degrade with the proposed project when compared to the existing Master Plan project. Rather, the proposed Master Plan Update Project's ICU contribution at five of the six intersections would be less during one or both peak periods when compared to the existing Master Plan. Therefore, the square footage reallocation proposed as a part of the Master Plan Update Project would not result in a significant traffic impact in 2025 when compared to the 1992 Master Plan project.

### *Construction-related Traffic*

As addressed in this SEIR, no site-specific development projects are proposed as a part of the Master Plan Update. During construction activities, there are typically temporary increases in truck trips in the project area. Construction activities can include grading, demolition, and construction. As addressed in Final EIR No. 142, construction-related traffic would use the existing regional and local road network and would most likely access the project site primarily via Coast Highway, Newport Boulevard, Superior Avenue, and Hospital Road. Traffic delays could occur on these roadways. Final EIR No. 142 found these delays to be less than significant. However, to facilitate the movement of construction traffic and to minimize potential disruptions, mitigation measures that were adopted as part of Final EIR No. 142 would continue to be applicable to the proposed Master Plan Update Project.




# Year 2025 With Proposed Master Plan Update Project AM Peak Hour Traffic Volumes

Exhibit 3.2-13

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex.3.2-13_2025peak_081607.pdf

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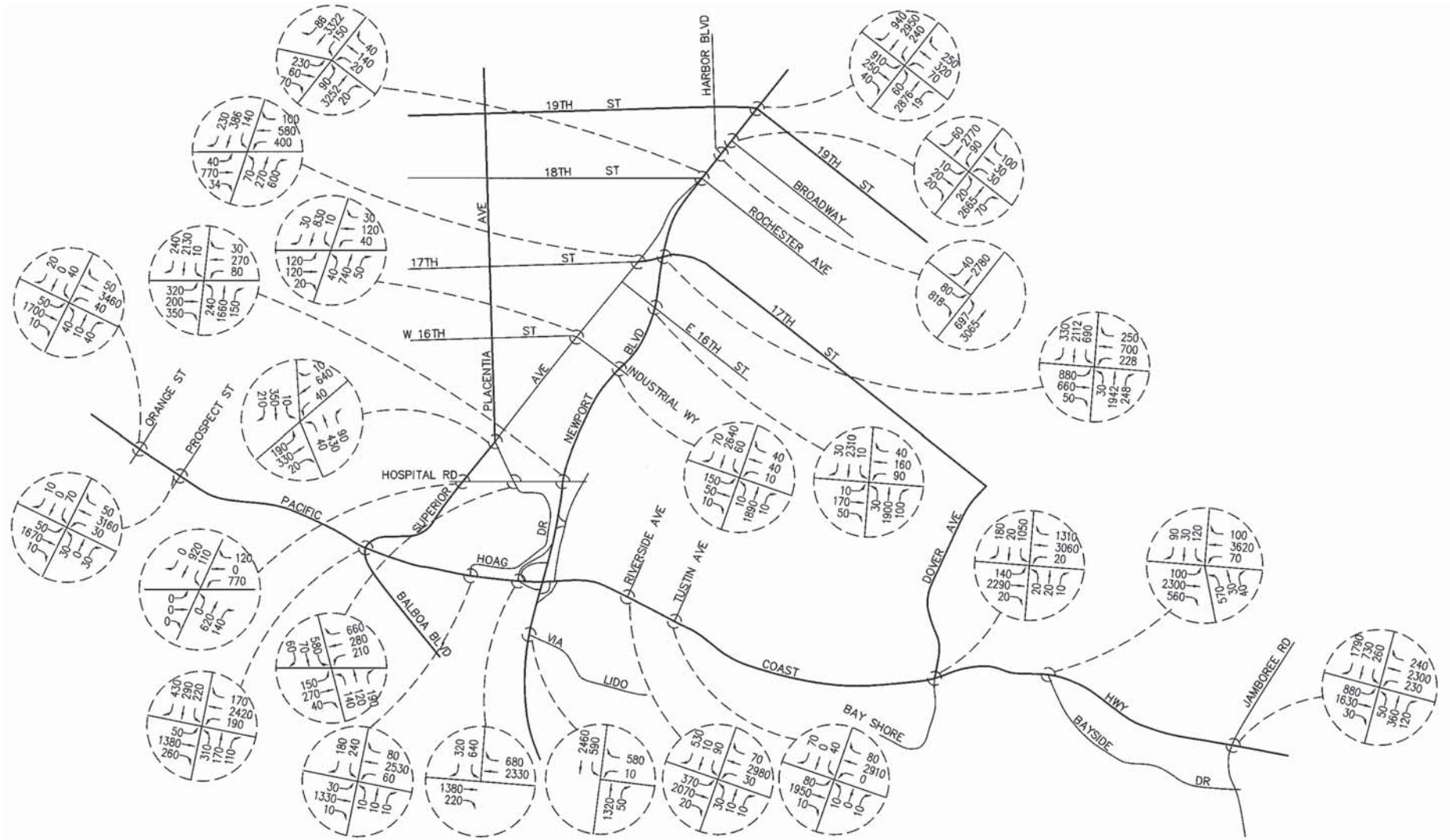



# Year 2025 With Proposed Master Plan Update Project PM Peak Hour Traffic Volumes

Exhibit 3.2-14

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: Linscott Law & Greenspan Engineers

BonTerra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex.3.2-14_2025prjctPMpeak_081607.pdf

D:/Projects/Newport/J008/Graphics/Ex.3.2-14_081607.ai

***Impact 3.2-1:*** ***Less Than Significant Impact.*** The proposed Master Plan Update Project would generate fewer daily traffic trips than the number of daily trips associated with the 1992 Master Plan approved in Final EIR No. 142. When compared to the 1992 Master Plan, the proposed Master Plan Update Project would have the same or less impact at intersections in 2015 and 2025 when compared to the existing Master Plan. The proposed Master Plan Update Project would not result in a 0.01 or greater increase in ICU for intersections that currently exceed or are projected to exceed level of service standards of the Cities of Newport Beach or Costa Mesa. Therefore, the proposed Master Plan Update Project is not expected to cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system.

***Threshold 3.2-2:*** ***Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?***

The intersection of the Newport Boulevard southbound off-ramp at West Coast Highway is a CMP intersection. This intersection currently operates at an acceptable level of service. In 2015 with the proposed Master Plan Update Project, this intersection is projected to continue to operate at an acceptable level of service. In 2025 with the proposed Master Plan Project, the intersection is proposed to operate at a deficient level of service in the AM peak period (LOS F). However, the deficiency is not attributable to the Project. Rather, the Project would improve the capacity of the intersection when compared to conditions under the 1992 Master Plan. No significant impact would therefore occur associated with the proposed Master Plan Update Project.

***Impact 3.2-2:*** ***Less Than Significant Impact.*** Based on the significance criteria for CMP intersections, the proposed Master Plan Update Project would not significantly impact the one CMP intersection within the traffic study area.

***Threshold 3.2-3:*** ***Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

***Site Access and Circulation***

LSA Associates, Inc. (LSA 2007) has prepared an analysis to assess the traffic operations of Hoag's site access and on-site circulation. On the site, vehicular traffic is distributed to parking lots and structures based on proximity to one's destination. The analysis distributed on-site trips per land use based on the proximity to parking and the number of parking spaces in each location.

Primary access to Hoag Hospital is provided at the signalized intersections of Hoag Drive/Hospital Road and Hoag Drive/West Coast Highway, the Upper Campus and Lower Campus entrances, respectively. A secondary access driveway is located at the unsignalized intersection of West Hoag Drive/Hospital Road. Hoag Drive, South Hoag Drive, and West Hoag Drive are two-lane undivided roadways located internal to Hoag. The roadway cross sections and roadway widths are depicted on Exhibits 3.2-15 and 3.2-16, respectively. As shown in Exhibit 3.2-16, these roadways generally provide standard 11-, 12-, and 13-foot-wide travel lanes with curb and gutter. Left- and right-turn lanes are not provided. Sidewalks are provided

throughout Hoag, with the exception of Hoag Drive between South Hoag Drive and West Hoag Drive, for safe pedestrian access to/from buildings, surface parking lots, and parking garages.

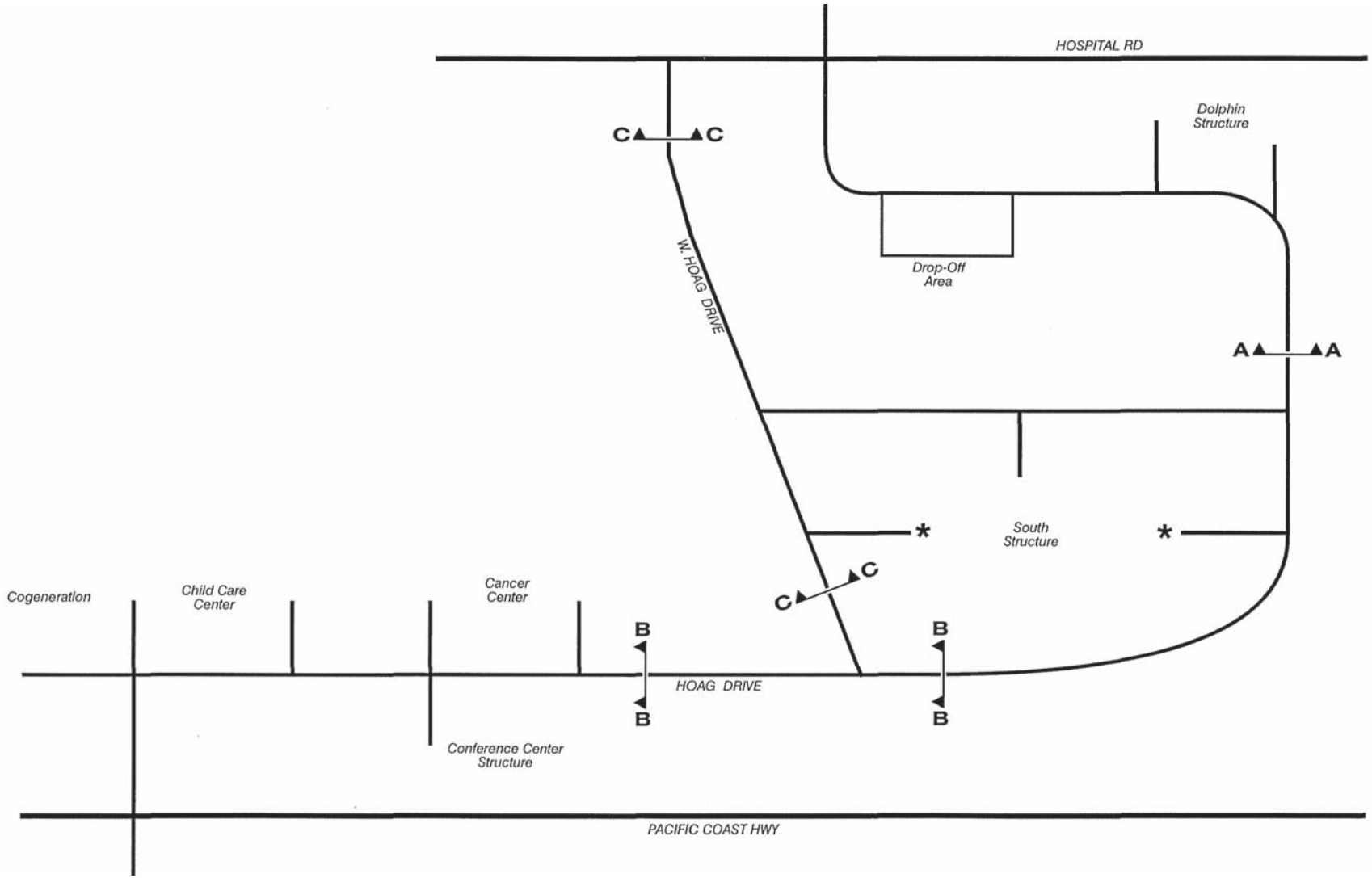
The 2000 Highway Capacity Manual (HCM) Signalized Intersection Operations methodology was used to determine intersection LOS at the Upper and Lower Campus entrances. Roadway link LOS was determined using the peak hour volume-to-capacity (V/C) ratios in each direction based on a capacity of 1,600 vehicles per hour per lane. The City considers LOS D to be the upper limit of satisfactory operations for both intersections and roadway links. As identified in Tables 3.2-8 and 3.2-9, respectively, all analyzed intersections and links are forecasted to operate at satisfactory LOS (LOS D or better).

**TABLE 3.2-8**
**YEAR 2025 WITH PROPOSED MASTER PLAN UPDATE PROJECT:**
**INTERSECTION LEVELS OF SERVICE AT ENTRANCES**

| Intersections | Peak Period | Delay (seconds) | LOS |
|---|---|---|---|
| 14. Hoag Drive-Placentia Avenue/Hospital Road[a] | AM | 27.1 | C |
| | PM | 34.3 | C |
| 15. Hoag Drive/West Coast Highway[b] | AM | 11.5 | B |
| | PM | 15.4 | B |

[a] Cycle length: 90 seconds
[b] Cycle length: 120 seconds

Source: LSA Associates, Inc. 2007

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## Roadway Cross Section

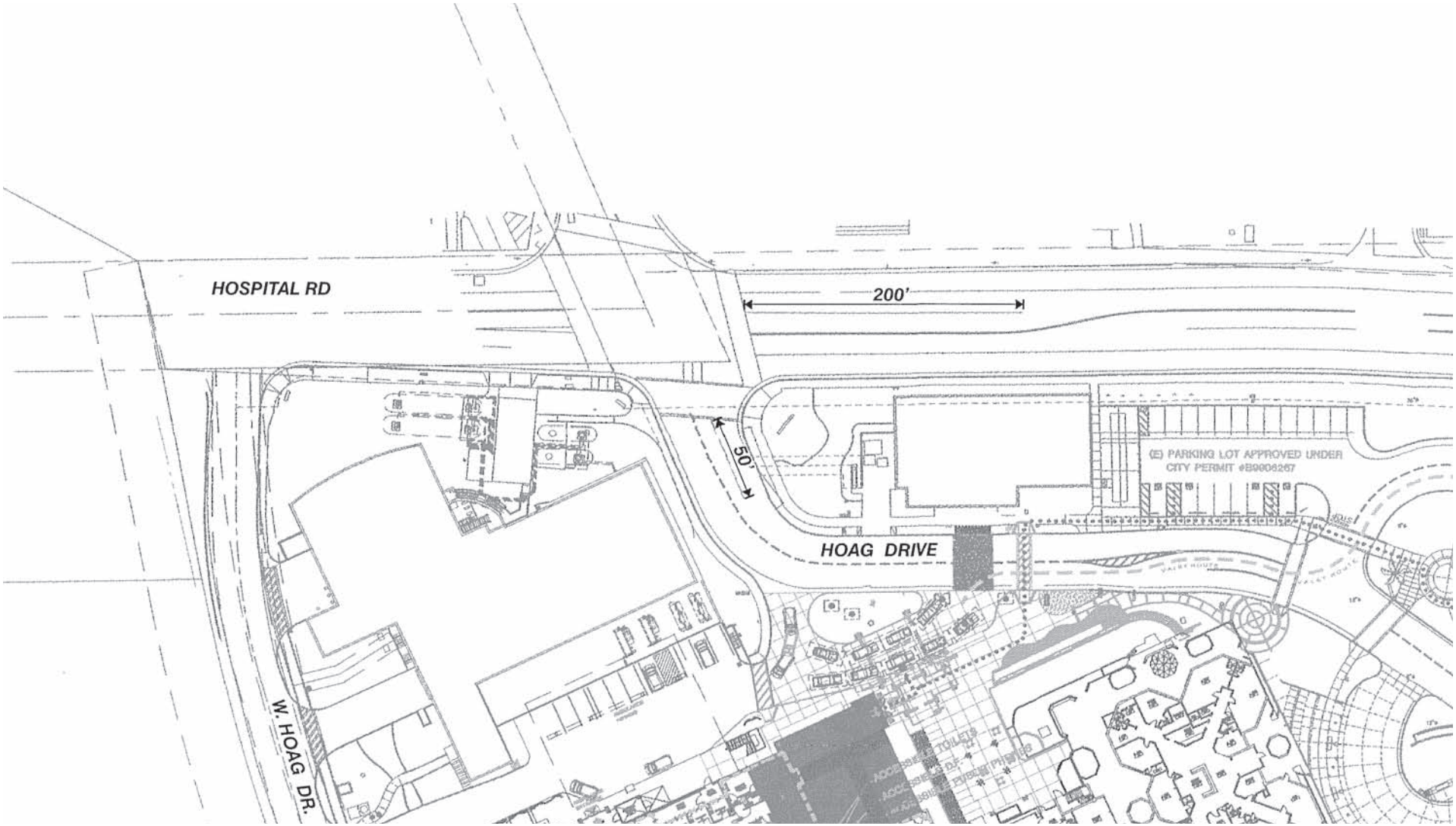
Exhibit 3.2-15

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: LSA Associates 2007

BonTerra CONSULTING

R:/projects/Newport/J008/Graphics/ex3.2-15_roadway_091707.pdf




# Hoag Drive/Hospital Road

Exhibit 3.2-16

*Hoag Hospital Master Plan Update Supplemental EIR*

Source: LSA Associates 2007

BonTerra CONSULTING

R:/projects/Newport/J008/Graphics/ex3.2-16_hoagdrive_091707.pdf

D:/Projects/Newport/J008/graphics/ex_hoagdrive_091707.ai

**TABLE 3.2-9**
**YEAR 2025 WITH PROPOSED MASTER PLAN UPDATE PROJECT**
**LINK LEVELS OF SERVICE AT ENTRANCES**

| Roadway | Segment | Capacity | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|
| | | | Volume | V/C | LOS | Volume | V/C | LOS |
| Hoag Drive | South of Hospital Road | | | | | | | |
| | Northbound | 1,600 | 459 | 0.29 | A | 700 | 0.44 | A |
| | Southbound | 1,600 | 588 | 0.37 | A | 319 | 0.20 | A |
| | North of South Hoag Drive | | | | | | | |
| | Northbound | 1,600 | 409 | 0.26 | A | 590 | 0.37 | A |
| | Southbound | 1,600 | 504 | 0.32 | A | 301 | 0.19 | A |
| | South of South Hoag Drive | | | | | | | |
| | Northbound/Eastbound | 1,600 | 374 | 0.23 | A | 538 | 0.34 | A |
| | Southbound/Westbound | 1,600 | 459 | 0.29 | A | 277 | 0.17 | A |
| | West of West Hoag Drive | | | | | | | |
| | Eastbound | 1,600 | 377 | 0.24 | A | 398 | 0.25 | A |
| | Westbound | 1,600 | 383 | 0.24 | A | 350 | 0.22 | A |
| | East of Child Care Center | | | | | | | |
| | Eastbound | 1,600 | 384 | 0.24 | A | 266 | 0.17 | A |
| | Westbound | 1,600 | 336 | 0.21 | A | 444 | 0.28 | A |
| West Hoag Drive | South of Hospital Road | | | | | | | |
| | Northbound | 1,600 | 19 | 0.01 | A | 25 | 0.02 | A |
| | Southbound | 1,600 | 22 | 0.01 | A | 16 | 0.01 | A |
| | North of Hoag Road | | | | | | | |
| | Northbound | 1,600 | 72 | 0.05 | A | 53 | 0.03 | A |
| | Southbound | 1,600 | 132 | 0.08 | A | 187 | 0.12 | A |

Source: LSA Associates, Inc. 2007.

In addition, the 2000 HCM Signalized Intersection Operations methodology was used to determine vehicle queues at Hoag Drive/Hospital Road and Hoag Drive/West Coast Highway (i.e., the Upper and Lower Campus entrances). The back of the queue is the number of vehicles queued, which depends on the number of arriving vehicles and vehicles that do not clear the intersection during a given green phase (overflow). The average queue is calculated based on uniform arrival patterns, signal progression for a given lane group, random arrivals, and overflow queues that can occur even when demand is below capacity. The average vehicle queues at Hoag Drive/Hospital Road and Hoag Drive/West Coast Highway are provided in Table 3.2-10.

**TABLE 3.2-10**
**VEHICLE QUEUES AT HOAG ACCESS POINTS**

| Turn Lane | Pocket Length (ft) | Average Vehicle Queue | |
|---|---|---|---|
| | | AM Peak Hour (ft) | PM Peak Hour (ft) |
| **Hoag Drive at Hospital Road** | | | |
| Northbound left | 50 | 44 | 44 |
| Northbound through | 50 | 44 | 44 |
| Northbound right | 50 | 154 | 242 |
| Westbound left | 200 | 176 | 66 |
| **Hoag Drive at West Coast Highway** | | | |
| Southbound left | 125 | 44 | 66 |
| Southbound through | 125 | 0 | 0 |
| Southbound right | 100 | 22 | 22 |
| Eastbound left | 265 | 22 | 44 |
| Source: LSA Associates 2007. | | | |

The 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 impact 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.

Because no site-specific development projects are proposed as a part of the Master Plan Update Project, a detailed site analysis cannot be provided for the internal roadways at this time. To ensure that site-specific projects do not impact the on-site circulation system, the following design criteria are proposed for use in evaluating 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.

Distance between Driveways

When considering future access onto internal roadways, the distance between driveways should be considered. Because lower speeds on Hoag do not require extensive sight distance and drivers would not expect unimpeded progression, the primary function of minimum intersection spacing at Hoag should be to minimize conflict points along the internal roadways. Conflict points are created when a vehicle slows to turn into a driveway or when a vehicle turns out of a driveway. Drivers traveling along Hoag Drive can identify and avoid one conflict point; however, if multiple conflict points are located proximate to one another, the risk of collisions increases.

To reduce the potential for overlapping right-turn maneuvers, a minimum driveway spacing of 185 feet is recommended on a roadway with a speed of 30 miles per hour (mph) (LSA 2007). The 185-foot driveway spacing should be considered a guide when evaluating future on-site

development proposals and conditions such as the location of other driveways, traffic volumes on Hoag Drive, and speed limits.

Left-Turn Lanes

Left turns into and out of on-site driveways have the potential to create delays and queuing at Hoag. When traffic volumes are low, left turns can be made with relative ease and minimal delay. However, as Hoag is developed, on-site traffic volumes will increase, and the number of gaps in traffic that allow left turns may be reduced. The HCM states that "the presence of exclusive left-turn lanes is determined by the volume of left-turn traffic, opposing volumes, and safety considerations." When evaluating whether a left-turn lane will be required for future on-site driveways, the HCM criteria of 100 left-turn vehicles should be considered. In some cases, the 100 vehicle criterion may be exceeded without the need for a left-turn lane. The opposing traffic volume should be considered, and an HCM analysis of the potential queuing at the intersection should be prepared before determining the need for a left-turn lane at Hoag.

Based on the analysis of the forecasted traffic volumes, the access intersections and internal driveways will operate at satisfactory LOS with build out of Hoag. The vehicle queues can be accommodated on site without blocking the driveways along Hoag Drive. The through movements along Hospital Road and West Coast Highway are expected to be unimpeded by the forecasted left-turn queues by vehicles entering Hoag Hospital. Therefore, implementation of the proposed Master Plan Update Project would not significantly impact the operation of the access intersections and on-site circulation, and therefore would not significantly impact any emergency response evacuation plans.

***Impact 3.2-3:*** ***Less Than Significant Impact.*** Implementation of the proposed Master Plan Update Project would not result in any significant impacts related to circulation or access, and therefore would not significantly impact any emergency response evacuation plans.

***Threshold 3.2-4: Would the project result in inadequate parking capacity?***

***Parking***

As previously addressed, all parking is required to be provided on the site. Parking requirements for specific sites are based upon the parking criteria identified in Table 3.2-11. 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.

**TABLE 3.2-11**
**PROJECT PARKING REQUIREMENTS**

| Use Category | Parking Requirements |
|---|---|
| Outpatient Services[a] | 2.31 spaces/1,000 square feet |
| Support[a, c] | 0.0 spaces/1,000 square feet |
| Administrative[a] | 5.3 spaces/1,000 square feet |
| Residential Care[b] | 1.0 spaces/1,000 square feet |
| Medical Offices[b] | 4.0 spaces/1,000 square feet |
| Inpatient[a] | 2.35 spaces/1,000 square feet |

[a] Parking factor based on the Traffic Study 2001–2002, which was approved by Planning Commission Resolution No. 1542.
[b] Parking factor based on DKS Associates traffic study, May 1987.
[c] Support Services generates parking demand that is already accounted for in one of the other categories as determined in Traffic Study 2001–2002, which was approved by Planning Commission Resolution No. 1542.

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

The City requires that a parking study be provided and approved by the City Traffic Engineer for each individual building project at Hoag to determine the specific parking requirements for that project. Because adequate parking would be required to be provided as a condition of project-specific development projects, no significant impacts are expected associated with the provision of on-site parking at Hoag.

***Impact 3.2-4:*** ***Less Than Significant Impact.*** All future development projects at Hoag would be required to comply with the parking requirements set forth in the PC Text and are subject to approval by the City. No significant parking impacts are attributable to the proposed Master Plan Update project.

***Threshold 3.2-5: Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?***

### *General Plan Policies*

Table 3.2-12 evaluates the consistency of the proposed Master Plan Update Project with the applicable goals and policies of the General Plan.

## TABLE 3.2-12
## CONSISTENCY OF THE PROPOSED MASTER PLAN UPDATE PROJECT WITH TRANSPORTATION-RELATED GOALS AND POLICIES

| Policy | Consistency Evaluation |
|---|---|
| *Goal CE 1.1 – An overall transportation system that facilitates the movement of people and goods within and through the City of Newport Beach and accommodates conservative growth within the City of Newport Beach, but is not expanded primarily to accommodate growth in the surrounding region.* | |
| CE 1.1.1: Provide a diverse transportation system that provides mobility options for the community. *(Imp 16.8, 16.11)*<br><br>CE 1.1.2: Provide an integrated transportation system that supports the land use plan set forth in the Land Use Element. *(Imp 2.1)* | As set forth in Final EIR No. 142, the individual projects proposed under the existing Master Plan are required to comply with the City's Transportation Demand Management Ordinance. Further, Hoag is required to provide new employees with information regarding ridesharing services and programs. The proposed Master Plan Update Project would be required to continue to comply with these mitigation requirements. |
| CE 1.1.3: Establish level of service standards that reflect the character of the various unique districts and neighborhoods of Newport Beach. *(Imp 16.2, 16.4, 16.6, 16.7)* | As previously noted, the existing Master Plan included a traffic analysis that provides a mitigation program for the provision of necessary traffic monitoring and improvements, as needed. The proposed Master Plan Update Project would not result in any new significant traffic impacts. The Project would not cause any roadway to exceed LOS D. |
| *Goal CE 2.1 – A roadway system that provides for the efficient movement of goods and people in the City of Newport Beach, while maintaining the community's character and its residents' quality of life.* | |
| CE 2.1.1: Plan the arterial roadway system to accommodate projected traffic at the following level of service standards: A. Level of Service (LOS) "D" throughout the City, unless otherwise noted. *(Imp 16.3)*<br><br>CE 2.1.2: Construct the circulation system described on the map entitled *Newport Beach Circulation Element-Master Plan of Streets and Highways* shown in Figure CE1 and Figure CD2 (of the proposed Circulation Element). *(Imp 14.9, 16.3)*<br><br>CE 2.1.3: Monitor traffic conditions on an ongoing basis and update Master Plan as necessary. *(Imp 16.4)*<br><br>CE 2.1.4: Pursue construction improvements shown on Figure CE3 or alternate improvements that achieve an acceptable level of service. *(Imp 16.3)* | As discussed above for Policy CE 1.1.3, the proposed Master Plan Update Project would not result in any new significant traffic impacts. The Project would not cause any roadway to exceed LOS D. No specific roadway improvements are required.<br><br>As previously noted, the adopted Mitigation Program set forth in Final EIR No. 142 and included in this SEIR requires the Master Plan Update Project to prepare a TPO analysis for each phase of development and to implement improvements for any identified significant impacts associated with the project. The proposed Master Plan Update Project would be required to comply with the mitigation requirement as future phases of development are proposed. |
| *Goal CE 2.3 – Optimal roadway system operation.* | |
| CE 2.3.4: Based on the monitoring of traffic conditions, consider additional improvements in areas with operations issues, such as intersections with heavy turn volumes (e.g., additional turn lanes, traffic signal progression). *(Imp 16.2)* | As previously noted, individual development projects proposed under the existing Master Plan and proposed Master Plan Update require a TPO analysis to be conducted with each phase of Master Plan implementation. This TPO requirement is consistent with Policy CE 2.3.4, which requires the monitoring of traffic conditions. |
| *Goal CE 4.1 – A public transportation system that provides mobility for residents and encourages use of public transportation as an alternative to automobile travel.*<br>and<br>*Goal CE 6.2 – Reduced automobile travel through the use of travel demand management strategies.* | |
| CE 4.1.1: Support efforts by OCTA and other agencies to increase the effectiveness and productivity of transit services, possibly including local shuttle services. *(Imp 14.4)* | As discussed above for Policy CE 1.1.1, Hoag currently provides all new employees with information regarding ridesharing services and programs. Additionally, as addressed in Section 3.3, Air Quality, of this SEIR, the adopted Mitigation Program in Final EIR No. 142 and included in this SEIR requires each phase of Master Plan |

**TABLE 3.2-12 (Continued)**
**CONSISTENCY OF THE PROPOSED MASTER PLAN UPDATE PROJECT WITH TRANSPORTATION-RELATED GOALS AND POLICIES**

| Policy | Consistency Evaluation |
|---|---|
| CE 4.1.2: Support efforts to increase accessible transit services and facilities for the elderly, disabled, and other transportation disadvantaged persons. *(Imp 16.8)*<br><br>CE 6.2.1: Promote and encourage the use of alternative transportation modes, such as ridesharing, carpools, vanpools, public transit, bicycles, and walking; and provide facilities that support such alternative modes. *(Imp 16.8, 16.11)*<br><br>CE 6.2.2: Require new development projects to provide facilities commensurate with development type and intensity to support alternative modes, such as preferential parking for carpools, bicycle lockers, showers, commuter information areas, rideshare vehicle loading areas, water transportation docks, and bus stop improvements. *(Imp 16.8, 16.11)*<br><br>CE 6.2.3: Encourage increased use of public transportation by requiring project site designs that facilitate the use of public transportation and walking. *(Imp 16.8, 16.11)* | development to include parking for carpools, bicycle lockers, showers and lockers, a ridesharing vehicle loading area, vanpool parking, and bus stop improvements; the exact number of facilities will be determined by the City based on the project-specific land use at Hoag. The proposed Master Plan Update Project would be required to continue to comply with these requirements. |
| *Goal CE 7.1 – An adequate supply of convenient parking throughout the City.* | |
| CE 7.1.1: Require that new development provide adequate, convenient parking for residents, guests, business patrons, and visitors. *(Imp 16.10)*<br><br>CE 7.1.8: Site and design new development to avoid use of parking configurations or management programs that are difficult to maintain and enforce. *(Imp 2.1, 7.1, 8.1)* | As set forth in Final EIR No. 142, the current Master Plan requires a parking study be submitted for all development projects and that this parking study identifies the parking requirements for the specific project. All parking is to be provided on site at Hoag. The proposed Master Plan Update Project would be required to continue to comply with this mitigation requirement. |
| CE 7.1.6: Encourage the use of commercial, office, and institutional parking areas for use as public parking to serve coastal recreational areas during weekends and holidays, in conjunction with public transit or shuttles where appropriate. *(Imp 8.1, 8.2, 16.10)* | Unlike more traditional commercial, office, and institutional uses that may require less parking on weekends, Hoag is a 24-hour medical facility. As such, extra parking is not expected to be available on a consistent basis. It would not be appropriate for Hoag to provide coastal recreational parking. However, Hoag is not precluded from providing excess parking for special events provided that it was determined to not interfere with the needs of Hoag. |

***Impact 3.2-5:*** ***No Impact.*** As identified in Table 3.2-12, the proposed Master Plan Update Project would not conflict with any goals or policies of the *City of Newport Beach General Plan.*

## 3.2.6 MITIGATION PROGRAM

The following transportation measures were adopted as a part of Final EIR No. 142 and would apply to the proposed Master Plan Update Project. Mitigation measure numbering reflects that provided in Resolution No. 92-43 for certification of Final EIR No. 142. Minor modifications to the mitigation measures are proposed to reflect the current status of the Project; some of the mitigation measures in Final EIR No. 142 have been implemented and are no longer applicable.

~~Strikeout text~~ is used to show deleted wording and *italic text* is used to show wording that has been added. No additional mitigation is required as a part of the proposed Master Plan Update Project.

## Project Design Features

The Project does not propose any project design features related to transportation and circulation.

## Standard Conditions and Requirements

The City's standard conditions and requirements have been incorporated into the Mitigation Program adopted as a part of Final EIR No. 142.

## Mitigation Measures

### *Final EIR No. 142 Previously Adopted Mitigation Measures*

Final EIR No. 142 included several mitigation measures related to traffic. The adopted measures are presented below in three categories: (1) Mitigation Measures to Carry Forward; (2) Mitigation Measures Proposed for Revision; and (3) Mitigation Measures No Longer Required. A rationale is provided for each measure in categories 2 and 3.

Mitigation Measures to Carry Forward

*Construction Traffic*

101. In conjunction with the application for a grading permit, the Project Sponsor shall submit a construction phasing and traffic control plan for each phase of development. This plan would identify the estimated number of truck trips and measures to assist truck trips and truck movement in and out of the local street system (i.e., flagmen, signage, etc.). This plan shall consider scheduling operations affecting traffic during off-peak hours, extending the construction period and reducing the number of pieces of equipment used simultaneously. The plan will be reviewed and approved by the City Traffic Engineer prior to issuance of the grading permit.

103. The Project Sponsor shall provide advance written notice of temporary traffic disruptions to affected area business and the public. This notice shall be provided at least two weeks prior to disruptions.

104. The Project Sponsor shall ensure that construction activities requiring more than 16 truck (i.e., multiple axle vehicle) trips per hour, such as excavation and concrete pours, shall be limited between June 1 and September 1 to avoid traffic conflicts with beach and tourist traffic. At all other times, such activities shall be limited to 25 truck (i.e., multiple axle vehicle) trips per hour unless otherwise approved by the City Traffic Engineer. Haul operations will be monitored by the Public Works Department and additional restrictions may be applied if traffic congestion problems arise.

*Project Traffic*

25. The Project Sponsor shall conduct a Traffic Phasing Ordinance (TPO) analysis for each Master Plan development project. The analysis shall identify potential intersection

impacts, the proposed project traffic volume contributions at these impacted intersections, and the schedule for any intersection improvements identified as necessary by the study to ensure a satisfactory level of service as defined by the TPO. This report shall be approved by the City prior to commencement construction of the development project.

29. The project shall comply with the City of Newport Beach Transportation Demand Management Ordinance approved by the City Council pursuant to the County's Congestion Management Plan.

*Site Access and Circulation*

91. Prior to the issuance of grading permits, emergency fire access to the site shall be approved by the City Public Works and Fire Department.

95. Prior to issuance of building permits, the Project Sponsor shall demonstrate to the City Fire Department that all existing and new access roads surrounding the project site shall be designated as fire lanes, and no parking shall be permitted unless the accessway meets minimum width requirements of the Public Works and Fire Departments. Parallel parking on one side may be permitted if the road is a minimum 32 feet in width.

*Parking*

32. Prior to issuance of approvals for development projects, the applicant shall submit to the City Traffic Engineer for his/her review and approval, a study that identifies the appropriate parking generation rates. The findings of this study shall be based on empirical or survey data for the proposed parking rates.

<u>Mitigation Measures Proposed for Revision</u>

*Construction Traffic*

102. The Project Sponsor shall ensure that all haul routes for import or export materials shall be approved by the City Traffic Engineer and procedures shall conform with Chapter 15 of the Newport Beach Municipal Code. ~~Such routes shall be included in the above construction traffic plan~~.

**Rationale:** Mitigation Measure 102 was adopted as part of Final EIR No. 142. This SEIR recommends this measure be modified to clarify that haul route plans are not required to be submitted as a part of a grading plan application. A construction traffic plan is required as a part of Mitigation Measure 101.

108. Prior to issuance of any grading and building permit, the Project Sponsor shall submit a Trip Reduction Plan for construction crew members *where the number of construction employees would be 50 or greater*. This plan shall identify measures, such as ride-sharing and transit incentives, to reduce vehicle miles traveled by construction crews. The plan shall be reviewed and approved by the City Traffic Engineer.

**Rationale:** Mitigation Measure 108 was adopted as part of Final EIR No. 142. This SEIR recommends this measure be modified to require a Trip Reduction Plan only in cases where the number of construction employees would be 50 or greater.

*Project Traffic*

27. ~~Subsequent to completion of Phase I Master Plan development, the Project Sponsor shall conduct a project trip generation study to be reviewed and approved by the City Traffic Engineer. This study shall analyze whether the traffic to be generated by the subsequent phases of development (Phases II and III) will exceed 1,856 P.M. peak hour trips when added to the trips generated by the existing (including Phase I) Hoag Hospital development. This study shall be conducted prior to the issuance of any grading or building permits for Phase II or III development.~~ *For each Master Plan Development Project, the Project Sponsor shall conduct a project trip generation study prepared in accordance with the Traffic Phasing Ordinance (TPO) guidelines and to be reviewed and approved by the City Traffic Engineer Prior to permit issuance for future phases.*

**Rationale:** Mitigation Measure 27 was adopted as part of Final EIR No. 142. This SEIR recommends this measure be updated to reflect the City's Traffic Phasing Ordinance requirements, which have been adopted since approval of Final EIR No. 142.

28. The Project Sponsor shall continue to comply with all applicable regulations adopted by the South Coast Air Quality Management District that pertain to trip reductions such as ~~Regulation 15~~ *Rule 2202.*

**Rationale:** Mitigation Measure 28 has been updated to reflect changes to the South Coast Air Quality Management District's rules and regulations.

30. In order to ensure accessibility to the available transit services for employees, visitors and patrons of the Hospital, the following transit amenities shall be incorporated into the Master Plan Project:

- Bus turnouts shall be installed if~~, and as~~ required by the City Traffic Engineer, after City consultation with OCTA, at all current bus stop locations adjacent to the project site. Bus turnouts shall be installed in accordance with standard design guidelines as indicated in OCTA's Design Guidelines for Bus Facilities.

**Rationale:** Mitigation Measure 30 was adopted as part of the Final EIR No. 142. Minor modification to the wording of the measure is recommended to reflect that the Orange County Transportation Authority (OCTA), not the City, would determine the location for bus turnouts.

34. Depending on actual site build-out, intersection improvements may be required at the *Hoag Drive*-Placentia Avenue/Hospital Road intersection (Upper Campus access), *Newport Boulevard/Hospital Road intersection,* and at the ~~WCH~~ *Hoag Drive/West Coast Highway* intersection (Lower Campus access). The need for these improvements shall be assessed during subsequent traffic studies to be conducted in association with Mitigation Measure 25. *Improvements could include restriping, traffic signal timing, etc.*

**Rationale:** Mitigation Measure 34 has been modified to include the analysis of the intersection of Newport Boulevard/Hospital Road, as well as the two intersections previously identified in Final EIR No. 142. This measure is appropriate to be implemented as a part of proposals for site-specific development.

35. As each ~~phase of the~~ Master Plan *Project* is constructed, the Project Sponsor shall provide each new employee a packet outlining the available ridesharing services and

programs and the number of the Transportation Coordinator. All new employees shall be included in the yearly update of the trip reduction plan for Hoag Hospital~~, as required by Regulation XV~~ *in compliance with the City of Newport Beach Trip Reduction Plan*.

**Rationale:** Mitigation Measure 35 is proposed to be updated to reflect the City's Trip Reduction Plan. Since the Master Plan was approved in 1992, the South Coast Air Quality Management District has delegated the development and implementation of trip reduction plans to the local jurisdictions.

38. Prior to the issuance of ~~grading and~~ building permits for each Master Plan development, the Project Sponsor shall provide evidence that site plans incorporate the site development requirements of Ordinance No. 91-16, as appropriate, to the Traffic Engineering Division and Planning Department for review and Planning Commission approval. Requirements outlined in the Ordinance include:

    a. A minimum of five percent of the provided parking at new facilities shall be reserved for carpools. These parking spaces shall be located near the employee entrance or at other preferred locations.

    b. A minimum of two bicycle lockers per 100 employees shall be provided. Additional lockers shall be provided at such time as demand warrants.

    c. A minimum of one shower and two lockers shall be provided.

    d. Information of transportation alternatives shall be provided to all employees.

    e. A rideshare vehicle loading area shall be designated in the parking area.

    f. The design of all parking facilities shall incorporate provisions for access and parking of vanpool vehicles.

    g. Bus stop improvements shall be coordinated with the Orange County Transportation Authority, consistent with the requirements of Mitigation Measure 30 ~~required for developments located along arterials where public transit exists or is anticipated to exist within five years~~.

    h. The exact number of each of the above facilities shall be determined by the City during review of ~~grading and~~ building permit applications for each development project. The types and numbers of facilities required of the project will reflect the content of the Ordinance at the time that a permit application is deemed complete by the Planning Department.

**Rationale:** Mitigation Measure 38 was adopted as a part of Final EIR No. 142. A revision to item 'g' is proposed to cross reference Mitigation Measure 30, which pertains to bus turnouts. The siting and design of bus turnouts is within the joint jurisdiction of the Orange County Transportation Authority (OCTA) and the City.

*Site Access and Circulation*

33. Prior to issuance of precise grading permits for Master Plan development that includes new, or modifications to existing, internal roadways (other than service roads), the Project Sponsor will prepare an internal circulation plan for submittal to and approval by

the ~~Director of Public Works~~ *City Traffic Engineer* that identifies all feasible measures to eliminate internal traffic congestion and facility's ingress and egress to the site. All feasible measures identified in this study shall be incorporated into the site plan.

**Rationale:** Mitigation Measure 33 is proposed for revision to identify the City Traffic Engineer as the party responsible for the review and approval of Hoag internal circulation plans.

Mitigation Measures No Longer Required

26. Prior to issuance of building permits for Phase I of the project, the Project Sponsor shall conduct a project trip generation study, which shall be reviewed and approved by the City Traffic Engineer. This study shall determine if the traffic to be generated by existing plus Phase I development will not exceed 1,338 PM peak hour traffic trips. In the event the Traffic Engineer determines that existing plus Phase I development will generate more than 1,338 PM peak hour trips, the project shall be reduced in size or the mix of land uses will be altered to reduce the PM peak hour trips to, at, or below 1,338.

    **Rationale:** Mitigation Measure 26 was adopted as part of Final EIR No. 142. This measure applied to Phase I of the project and has been implemented. Further tracking of this mitigation measure through the Mitigation Monitoring Program is no longer necessary. New traffic analyses are required for all phases subsequent to Phase I in compliance with the City Traffic Phasing Ordinance.

31. Prior to issuance of a grading permit for any of the proposed Master Plan facilities, the Project Sponsor shall implement a program, approved by the City Traffic Engineer, that monitors and manages usage of the Upper and Lower Campus service roads during non-working hours. Such controls may include requesting that the majority of vendors deliver products (other than emergency products) during working hours (i.e., 7:00 AM to 8:00 PM), signage to restrict use of the road by hospital employees, physicians, patients and visitors during non-working hours, and other methods by which to restrict use. The hospital shall also request that vendors not deliver (i.e., scheduled and routine deliveries) on the weekends.

    This restriction specifically applies to scheduled and routine deliveries. The results of this program shall be submitted to the City for review prior to issuance of the grading permit. If the results indicate that such controls do not significantly impact the operations of the hospital, and provided that requests for specified vendor delivery times is consistent with future Air Quality Management Plan procedures, the City may require that the program. be implemented as hospital policy. If operation impacts are significant, other mitigation measures would be investigated at the time to reduce service road impacts to the adjacent residential units.

    **Rationale:** Mitigation Measure 31 was adopted as a part of Final EIR No. 142 and has been implemented.

### 3.2.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Final EIR No. 142 found that all traffic impacts could be mitigated to a level considered less than significant. No new significant traffic impacts have been identified associated with the proposed Master Plan Update Project. Consistent with the conclusions of Final EIR No. 142, the Project's

contribution and all project-specific cumulative traffic, circulation, and parking impacts can be mitigated to a level considered less than significant.

## 3.3 AIR QUALITY AND HUMAN HEALTH RISK

This EIR section summarizes the findings of the *Air Quality Assessment for Hoag Hospital Master Plan Update* prepared by Mestre Greve Associates (August 2007) and the *Health Risk Assessment on Cogeneration Plant Operations at Hoag Memorial Hospital* prepared by CDM (June 2007). Both these reports are summarized below. The Air Quality Assessment and Health Risk Assessment are included in their entirety as Appendices D and E, respectively, of this Supplemental EIR (SEIR). It should be noted that Hoag is located in the South Coast Air Basin (SCAB or basin) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

### 3.3.1 SUMMARY OF FINAL EIR NO. 142

Final EIR No. 142 was certified in 1992, prior to the publication of SCAQMD's *CEQA Air Quality Handbook* in 1993 and the significance thresholds presented in the handbook. Final EIR No. 142 found that construction emissions would result in significant, unavoidable impacts. The EIR found no significant impacts to long-term, project emissions associated with carbon monoxide (CO), nitrogen oxides (NOx), or reactive organic gases (ROG). However, it should be noted that the project-related CO, ROG, and NOx emissions presented in Final EIR No. 142 exceed the significance thresholds which were subsequently published in SCAQMD's *CEQA Air Quality Handbook* (1993). The analysis in Final EIR No. 142 compared project emissions with regional emissions for the basin and Source Receptor Area 18 (the SCAQMD-designated area within which Hoag is located), and concluded that since the project represented such a small portion of regional emissions, the project did not result in a significant impact. Final EIR No. 142 did determine, however, that development of the Master Plan in conjunction with present and future projects would have a significant unavoidable cumulative impact on regional air quality.

### 3.3.2 METHODOLOGY AND ASSUMPTIONS

#### Air Quality Analysis

The air quality analysis for the proposed Master Plan Update Project was based on federal, State, and regional regulations applicable to the project site. Operational emissions were calculated using the guidance and emission factors presented in SCAQMD's *CEQA Air Quality Handbook* (2003, as amended) and information presented on SCAQMD's *CEQA Air Quality Handbook* web site. Assumptions used in preparing the model analysis were consistent with those recommended in SCAQMD's *CEQA Air Quality Handbook* (2003, as amended).

Traffic volume information was derived from the *Traffic Impact Study* prepared by Linscott, Law & Greenspan Engineers (May 2007). Mestre Greve Associates used emission factors from EMFAC2007 published on SCAQMD's *CEQA Air Quality Handbook* web site to estimate vehicular emissions (SCAQMD 2003). EMFAC2007 is a CARB-generated computer program that calculates emission rates for vehicles.

The data used to estimate the on-site combustion of natural gas usage is based on the proposed land uses in terms of building square footages and emission factors taken from the *CEQA Air Quality Handbook*. Hoag operates a cogeneration facility that generates electricity from natural gas extracted from the ground. Emissions from the cogeneration facility's generators were calculated based on the maximum permissible emission rates allowed by the SCAQMD permits for the units.

PM2.5 emissions due to natural gas combustion were calculated using the methodology presented in SCAQMD's "Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds" (October 2006). The PM10 emissions were calculated using the above methodologies and then multiplying the PM10 emissions by the applicable PM2.5 fraction derived from emission source, using PM profiles in the California Emission Inventory Data and Reporting System (CEIDRS) developed by CARB. This data indicates that PM2.5 emissions are 0.990 times the PM10 emissions.

**Health Risk Assessment**

Hoag's cogeneration facility is located at the western end of the Lower Campus. It currently has three permitted internal combustion engines fueled by natural gas, one boiler fueled by natural gas, and one standby internal combustion engine fueled by diesel. Air quality "Permits to Construct" were obtained in 2003 from the SCAQMD for these existing units. The cogeneration facility is designed to accommodate three additional future cogeneration natural gas internal combustion engines to meet Hoag's anticipated power and heating demand at buildout. In addition to the cogeneration facility, Hoag has an existing utility plant located in the northwestern corner of the Upper Campus. The utility plant has five diesel engine generator sets, four natural gas fueled boilers, and two natural gas fueled heater/chillers.

A health risk assessment was prepared to address potential health risk impacts associated with the three future cogeneration internal combustion engines. The assessment was conducted following the Tier 4 Detailed Risk Assessment methods in SCAQMD's *Risk Assessment Procedures for Rule 1401 and 212*, Version 7.0 (2006c). As specified in SCAQMD's procedures, CARB's Hotspots Analysis and Reporting Program (HARP) model was used to calculate potential incremental and cumulative risks. The HARP model is comprised of three modules: emission inventory, dispersion modeling, and risk analysis. The analysis combines the emission rates and dispersion results to determine potential health risks at each receptor.

For this SEIR health risk assessment, the "project" is the installation and operation of the three future cogeneration internal combustion engines at Hoag's existing cogeneration facility. Therefore, the health risk assessment addresses the potential incremental project health risks associated with the three future internal combustion engines, as well as the cumulative Hoag cogeneration facility and utility plant health risks.

### 3.3.3 REGULATORY AND PLANNING REQUIREMENTS FOR THE SCAB

In response to longstanding concerns about air pollution, federal, State, and local authorities have adopted various rules and regulations that require evaluation of the air quality impacts of a planned project and appropriate mitigation for air pollutant emissions. The following discussion identifies air quality planning efforts and the responsibilities of agencies involved in these efforts. A discussion of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) is also provided.

**Federal Attainment Status**

The USEPA is the primary federal agency for regulating air quality. The Federal Clean Air Act (CAA), enacted in 1970 and last amended in 1990, establishes federal air quality standards (the NAAQS) and specifies future dates for achieving compliance with these standards. The USEPA designates areas with pollutant concentrations that do not meet the NAAQS as "non-attainment areas" for each criteria pollutant. The CAA requires States to prepare State Implementation Plans (SIP) for designated non-attainment areas. The NAAQS were amended in July 1997 to

include an additional standard for ozone ($O_3$) and to adopt an NAAQS for suspended particulates of 2.5 microns or less (PM2.5). SIPs must include pollution-control measures that demonstrate how the NAAQS will be met. The City of Newport Beach is located in the SCAB, which was designated a non-attainment area for certain pollutants regulated under the CAA. By a separate State statute, the SCAQMD was established as the local air pollution control agency for the SCAB.

**California Attainment Status**

In addition to federal requirements, each air basin must meet California Clean Air Act (CCAA) requirements. According to the CCAA, air pollution control districts must design their air quality attainment plans to achieve a reduction in basin-wide emissions of 5 percent or more per year (or 15 percent or more in a 3-year period) for all non-attainment pollutants and their precursors. For emission reduction accounting purposes, the CARB established a seven-year initial reporting period (1988 to 1994) with reporting intervals every three years thereafter. Air Quality Management Plans (AQMPs) were adopted by the air districts in 1989 to meet federal standards and in 1991 to meet California standards. The CARB incorporates the AQMP into the SIP in an effort to satisfy the CAA requirements discussed above. These AQMPs were revised in 1994, 1997, 2003, and 2007 (however, the 2007 AQMP is not fully approved so the 2003 plan is the considered current AQMP).

**Regional Planning**

Hoag is located in the SCAB and, jurisdictionally, is the responsibility of both the SCAQMD and the CARB. The SCAQMD sets and enforces regulations for stationary sources in the basin and works with the Southern California Association of Governments (SCAG) to develop and implement Transportation Control Measures. The CARB is charged with controlling motor vehicle emissions. The CARB establishes legal emissions rates for new vehicles and is responsible for the vehicle inspection program. Other important agencies in the air quality management for the SCAB include the USEPA and SCAG. The USEPA implements the provisions of the CAA, which establishes ambient air quality standards that are applicable nationwide. In areas that are not achieving the standards, the CAA requires that plans be developed and implemented to meet the standards. The USEPA oversees the efforts in this air basin and ensures that appropriate plans are being developed and implemented. The SCAQMD is the primary agency responsible for writing the AQMP, with SCAG's collaboration in preparing the transportation control measure component.

The SCAQMD and the SCAG, in coordination with local governments and the private sector, have developed the SCAB's AQMP. The AQMP is the most important air management document for the basin because it provides the blueprint for meeting State and federal ambient air quality standards. The 1997 AQMP with the 199 amendments is the current federally approved applicable air plan for $O_3$. The successor, the 2003 AQMP, was adopted on August 1, 2003, by SCAQMD's governing board. The CARB adopted the plan as part of the California SIP on October 23, 2003. The USEPA adopted the mobile source emission budgets from the plan on March 25, 2004. The PM10 attainment plan received final approval on November 5, 2005, with an effective date of December 14, 2005. The USEPA has not approved the 2003 $O_3$ attainment plan to date. For federal purposes, the 1997 AQMP with the 1999 amendments is the currently applicable ozone attainment plan.

On June 1, 2007, the SCAQMD adopted the 2007 AQMP in response to the new federal PM2.5 and 8-hour $O_3$ standards. The plan focuses on control of sulfur oxides (SOx), directly emitted PM2.5, and nitrogen oxides (NOx) to achieve the PM2.5 standard. Achieving the 8-hour $O_3$

standard builds upon the PM2.5 attainment strategy with additional Volatile Organic Compound (VOC) reductions.[1] Control measures proposed by the SCAQMD for sources under their jurisdiction include facility modernization, energy efficiency and conservation, good management practices, market incentives/compliance flexibility, area source programs, emissions growth management, and mobile source programs. In addition, the CARB has developed a plan of control strategies for sources controlled by the CARB (i.e., on-road and off-road motor vehicles and consumer products). The 2007 AQMP now must be approved by the CARB prior to being submitted to the USEPA.

The overall control strategy for the 2003 AQMP is to meet applicable State and federal requirements and to demonstrate attainment with ambient air quality standards. The 2003 AQMP contains short- and long-term measures. These measures are included in Appendix IV-B of the AQMP.

Short-term measures propose the application of available technologies and management practices between 2005 and 2010. The 2003 AQMP includes 24 short-term control measures for stationary and mobile sources that are expected to be implemented within the next several years. The stationary source measures in the 2003 AQMP include measures from the 1997 AQMP and the 1999 Amendment to the ozone SIP with eleven additional new control measures. In addition, a new transportation conformity budget backstop measure is included in the 2003 AQMP.

One long-term measure for stationary sources is included in the 2003 AQMP. This control measure seeks to achieve additional VOC reductions from stationary sources. The long-term measure is made up of Tier I and Tier II components. The Tier I long-term measure has an adoption date between 2005 and 2007 and an implementation date between 2007 and 2009. Tier II has an adoption date between 2006 and 2008 and an implementation date between 2008 and 2010.

To ultimately achieve ambient air quality standards, additional emissions reductions will be necessary beyond the implementation of short-term measures. Long-term measures rely on the advancement of technologies and control methods that can reasonably be expected to occur between 2005 and 2010. Additional stationary-source control measures are included in Appendix IV-B of the AQMP, Proposed State and Federal Strategy for the California SIP. Contingency measures are also included in Appendix IV-Section 2 of the 2003 AQMP.

On June 1, 2007, the SCAQMD adopted the 2007 AQMP in response to the new federal $PM_{2.5}$ and 8-hour ozone standards. The plan focuses on control of sulfur oxides ($SO_x$), directly emitted PM2.5, and nitrogen oxides ($NO_x$) to achieve the PM2.5 standard. Achieving the 8-hour ozone standard builds upon the PM2.5 attainment strategy with additional VOC reductions. Control measures proposed by the SCAQMD for sources under its jurisdiction include facility modernization, energy efficiency and conservation, good management practices, market incentives/compliance flexibility, area source programs, emission growth management and mobile source programs. In addition, CARB has developed a plan of control strategies for sources controlled by CARB (i.e., on-road and off-road motor vehicles and consumer products). The 2007 AQMP now must be approved by CARB prior to being submitted to the USEPA.

[1] Some State and local agencies regulate VOCs as Reactive Organic Gases (ROGs) since they possess similar characteristics.

## Criteria Air Pollutants

Under the Federal CAA, the USEPA has established NAAQS for six major pollutants: ozone ($O_3$), respirable particulate matter (PM10), fine particulate matter (PM2.5), carbon monoxide (CO), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), and lead (Pb). These six air pollutants are often referred to as the "criteria pollutants." The NAAQS are two tiered: primary (to protect public health) and secondary (to prevent degradation to the environment (i.e., impairment of visibility, damage to vegetation and property). Under the California Clean Air Act (CCAA), the CARB has established California Ambient Air Quality Standards (CAAQS) to protect the health and welfare of Californians. State standards have been established for the six criteria pollutants as well as four additional pollutants; visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

***Ozone ($O_3$):*** Ozone is a secondary pollutant formed by the chemical reaction between volatile organic compounds (VOC) (also referred to as reactive organic gases [ROG]) and nitrogen oxides (NOx) under favorable meteorological conditions such as high temperature and stagnation episodes. An elevated level of ozone irritates the lungs and breathing passages which can cause coughing and pain in the chest and throat and can thereby increase susceptibility to respiratory infections and reduce the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to lung tissue scarring and may lower lung efficiency.

***Carbon Monoxide (CO):*** Carbon monoxide is primarily emitted from combustion processes and motor vehicles because of incomplete combustion of fuel. Elevated concentrations weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of moderate CO levels can cause nausea, dizziness and headaches, and can be fatal at high concentrations. Even under the most severe meteorological and traffic conditions, high concentrations of carbon monoxide are limited to locations within a relatively short distance (i.e., up to 600 feet or 185 meters) of heavily traveled roadways. Overall, CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emissions levels for vehicles manufactured since 1973.

***Particulate Matter (PM10 and PM2.5):*** The human body naturally prevents the entry of larger particles into the body. However, small particles, with an aerodynamic diameter equal to or less than ten microns (PM10) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns (PM2.5), can become trapped in the nose, throat, and upper respiratory tract. These small particulates enter the body and could potentially aggravate existing heart and lung diseases; change the body's defenses against inhaled materials; and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM10 and PM2.5. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulate matter could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal bodily fluids.

***Nitrogen Dioxide ($NO_2$):*** Nitrogen gas, normally relatively inert (unreactive), comprises about 80 percent of the air. At high temperatures (i.e., in the combustion process) and under certain other conditions it can combine with oxygen, forming several different gaseous compounds collectively called nitrogen oxides (NOx). Nitric oxide (NO) and nitrogen dioxide ($NO_2$) are the two most important compounds. NO is converted to $NO_2$ in the atmosphere. Motor vehicle emissions are the main source of NOx in urban areas. NOx is a combination of primarily NO and $NO_2$. While the NAAQS only addresses $NO_2$, NO and the total group of nitrogen oxides is of concern to the USEPA. NO and $NO_2$ are both precursors in the formation of $O_3$ and secondary

particulate matter. Because of this and the fact that NO emissions largely convert to $NO_2$, NOx emissions are typically examined when assessing potential air quality impacts.

***Sulfur Dioxide ($SO_2$):*** Major sources of $SO_2$ include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. $SO_2$ emissions can aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate-to-heavy exercise. $SO_2$ can potentially cause wheezing, shortness of breath, and coughing. High levels of particulate matter appear to worsen the effect of sulfur dioxide, and long-term exposure to both pollutants leads to higher rates of respiratory illness. $SO_2$ reacts with other chemicals in the air to form tiny sulfate particles which are measured as PM2.5.

***Lead (Pb):*** Lead is a stable compound, which persists and accumulates both in the environment and in animals. Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Lead exposure in very young children can impair the development of the nervous system, kidneys, and blood-forming processes in the body. Since 1975, lead emissions have been in decline due in part to the introduction of catalyst-equipped vehicles and decline in the production of leaded gasoline. In general, a lead analysis is limited to projects that emit significant quantities of the pollutant (i.e., lead smelters) and are not applied to transportation projects.

***Volatile Organic Compounds (VOC):*** Though VOCs are not directly a health hazard and are not considered a criteria pollutant, they react with NOx in the presence of sunlight to produce $O_3$. Hence, VOC emissions are regulated as a precursor of ozone. However, some State and local agencies regulate VOCs as Reactive Organic Gases (ROGs), which possess similar characteristics as VOCs.

## Ambient Air Quality Standards

Air quality impacts of a project, combined with existing background air quality levels, must be compared to the applicable ambient air quality standards (AAQS) in order to gauge their significance. These standards are the levels of air quality considered safe (with an adequate margin of safety) to protect the public health and welfare. The standards are designed to protect sensitive persons who are most susceptible to further respiratory distress (e.g., the elderly, young children, and persons with respiratory illnesses or impaired lung function caused by other illnesses). Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. The SCAQMD's *CEQA Air Quality Handbook* defines land uses considered to be sensitive receptors as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities. California standards are generally stricter than national standards, but have no penalty for non-attainment. California and national ambient air standards are shown on Table 3.3-1.

## TABLE 3.3-1
## AMBIENT AIR QUALITY STANDARDS

| Pollutant | Averaging Time | State Standards[a,c] | Federal Standards[b] | |
|---|---|---|---|---|
| | | | Primary[c,e] | Secondary[c,f] |
| **Ozone ($O_3$)** | 1 Hour | 0.09 ppm (180 µg/m$^3$) | — | — |
| | 8 Hour | 0.070 ppm (137 µg/m$^3$) | 0.08 ppm (157 µg/m$^3$) | Same as Primary |
| **Respirable Particulate Matter (PM10)[h]** | 24 Hour | 50 µg/m$^3$ | 150 µg/m$^3$ | Same as Primary |
| | AAM[f] | 20 µg/m$^3$ | — | Same as Primary |
| **Fine Particulate Matter (PM2.5)[h]** | 24 Hour | — | 35 µg/m$^3$ | Same as Primary |
| | AAM[f] | 12 µg/m$^3$ | 15 µg/m$^3$ | Same as Primary |
| **Carbon Monoxide (CO)** | 1 Hour | 20 ppm (23 mg/m$^3$) | 35 ppm (40 mg/m$^3$) | None |
| | 8 Hour | 9.0 ppm (10 mg/m$^3$) | 9 ppm (10 mg/m$^3$) | None |
| | 8 Hour | 6 ppm (7 mg/m$^3$) | — | — |
| **Nitrogen Dioxide ($NO_2$)** | AAM[f] | 0.030 ppm (56 µg/m$^3$) | 0.053 ppm (100 µg/m$^3$) | Same as Primary |
| | 1 Hour | 0.18 ppm (338 µg/m$^3$) | — | — |
| **Sulfur Dioxide ($SO_2$)** | AAM[f] | — | 0.030 ppm (80 µg/m$^3$) | — |
| | 24 Hour | 0.04 ppm (105 µg/m$^3$) | 0.14 ppm (365 µg/m$^3$) | — |
| | 3 Hour | — | — | 0.5 ppm (1,300 µg/m$^3$) |
| | 1 Hour | 0.25 ppm (655 µg/m$^3$) | — | — |
| **Lead[g]** | 30 day Avg. | 1.5 µg/m$^3$ | — | — |
| | Calendar Quarter | — | 1.5 µg/m$^3$ | Same as Primary |
| **Visibility Reducing Particles** | 8 hour | Extinction coefficient of 0.23 per km – visibility ≥ 10 miles ( 0.07 per km – ≥30 miles for Lake Tahoe) | **No Federal Standards** | |
| **Sulfates** | 24 Hour | 25 µg/m$^3$ | | |
| **Hydrogen Sulfide** | 1 Hour | 0.03 ppm (42 µg/m$^3$) | | |
| **Vinyl Chloride[g]** | 24 Hour | 0.01 ppm (26 µg/m$^3$) | | |

[a] California standards for ozone, carbon monoxide (except in Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, PM10, PM2.5, and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

[b] National standards (other than $O_3$, PM10, PM2.5, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the 4$^{th}$ highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m$^3$ is equal to or less than 1. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

**TABLE 3.3-1 (Continued)**
**AMBIENT AIR QUALITY STANDARDS**

| Pollutant | Averaging Time | State Standards[a,c] | Federal Standards[b] | |
|---|---|---|---|---|
| | | | Primary[c,e] | Secondary[c,f] |

[c] Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25˚C and a reference pressure of 760 torr. Most air quality measurements are to be corrected to a reference temperature of 25˚C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
[f] Annual Arithmetic Mean
[g] The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
[h] On September 21, 2006, the USEPA published a final rule revoking the annual 50 $\mu g/m^3$ PM10 standard and lowering the 24-hour PM2.5 standard from 65 $\mu g/m^3$ to 35 $\mu g/m^3$. Attainment designations are to be issued in December 2009 with attainment plans due April 2010.
— No Standard

## South Coast Air Basin Air Quality Attainment Designations

Based on monitored air pollutant concentrations, the USEPA and the CARB designate areas relative to their status in attaining the NAAQS and CAAQA, respectively. Table 3.3-2 lists the current attainment designations for the basin. For the federal standards, the required attainment date is also shown. The unclassified designation indicates that the air quality data for the area does not support a designation of either "attainment" or "non-attainment."

**TABLE 3.3-2**
**DESIGNATIONS OF CRITERIA POLLUTANTS FOR THE SCAB**

| Pollutant | Federal | State |
|---|---|---|
| Ozone ($O_3$) | Severe-17 Non-attainment (2021) | Non-attainment |
| Respirable Particulate Matter (PM10) | Serious Non-attainment (2006) | Non-attainment |
| Fine Particulate Matter (PM2.5) | Non-attainment (2015) | Non-attainment |
| Carbon Monoxide (CO) | Attainment/Maintenance (2000) | Attainment |
| Nitrogen Dioxide ($NO_2$) | Attainment/Maintenance (1995) | Attainment |
| Sulfur Dioxide ($SO_2$) | Attainment | Attainment |
| Lead (Pb) | Attainment | Attainment |
| Visibility Reducing Particles | N/A | Unclassified |
| Sulfates | N/A | Unclassified |
| Hydrogen Sulfide | N/A | Attainment |
| Vinyl Chloride | N/A | Attainment |

Under federal law, the USEPA has designated the SCAB as being in "Severe-17" non-attainment for $O_3$, in "Serious" non-attainment for PM10, in non-attainment for PM2.5, and an attainment/maintenance area for CO and $NO_2$. The State has designated the basin as being in non-attainment for $O_3$, PM10, and PM2.5. For the federal designations, the qualifiers (Severe-17 and Serious) affect the required attainment dates as the federal regulations have different requirements for areas that exceed the standards by greater amounts at the time of attainment/non-attainment designation. The SCAB is designated as being in attainment of the federal $SO_2$ and lead NAAQS as well as the State CO, $NO_2$, $SO_2$, lead, hydrogen sulfide, and vinyl chloride CAAQS.

In July 1997, the USEPA issued an $O_3$ NAAQS of 0.08 parts per million (ppm) using an 8-hour averaging time. Implementation of this standard was delayed by several lawsuits. Attainment/non-attainment designations for the new 8-hour ozone standard were issued on April 15, 2004, and became effective on June 15, 2005. The SCAB was designated as being in Severe-17 non-attainment, which requires attainment of the federal standard by June 15, 2021. As a part of the designation, the USEPA announced that the 1-hour $O_3$ standard would be revoked in June 2005. Thus, the 8-hour $O_3$ standard attainment deadline of 2021 supersedes and replaces the previous 1-hour $O_3$ standard attainment deadline of 2010.

The SCAQMD is requesting that the USEPA change the non-attainment status of the 8-hour $O_3$ standard to "Extreme." This will allow the use of undefined reductions (i.e., "black box") based on the anticipated development of new control technologies or improvement of existing technologies in the attainment plan. Further, the "Extreme" classification could extend the attainment date by three years to 2024.

On April 28, 2005, the CARB adopted an 8-hour $O_3$ standard of 0.070 ppm. The California Office of Administrative Law approved the rule and filed it with the Secretary of State on April 17, 2006. The standard became effective on May 17, 2006. California has retained the 1-hour concentration standard of 0.090 ppm. For the State to redesignate the SCAB as an attainment area, the basin will need to achieve both the 1-hour and 8-hour $O_3$ standards.

The SCAB was designated as being in moderate non-attainment of the PM10 standards when the designations were initially made in 1990 with a required attainment date of 1994. In 1993, the basin was redesignated as being in serious non-attainment with a required attainment date of 2006 because it was apparent that the SCAB could not meet the PM10 standard by the 1994 deadline. At this time, the basin has met the PM10 standards at all monitoring stations except in Western Riverside where the annual PM10 standard has not yet been met. However, on September 21, 2006, the USEPA announced that it was revoking the annual PM10 standard as research had indicated that there was no considerable health effects associated with long-term exposure to PM10. With this change, the basin is technically in attainment of the federal PM10 standards, although the redesignation process has not yet begun.

In July 1997, the USEPA issued NAAQS for fine particulate matter (PM2.5). The PM2.5 standards include an annual standard of 15 micrograms per cubic meter ($\mu g/m^3$), based on the 3-year average of annual mean PM2.5 concentrations and a 24-hour standard of 65 $\mu g/m^3$, based on the 3-year average of the 98$^{th}$ percentile of 24-hour concentrations. Implementation of these standards was delayed by several lawsuits. On January 5, 2005, the USEPA took final action to designate attainment and non-attainment areas under the NAAQS for PM2.5, effective April 5, 2005. The SCAB was designated as being a non-attainment area with an attainment required as soon as possible but no later than 2010. The USEPA may grant attainment date extensions of up to five years in areas with more severe PM2.5 problems and where emissions

control measures are not available or feasible. It is likely that the SCAB will need this additional time to attain the standard.

On September 21, 2006, the USEPA announced that the 24-hour PM2.5 standard was lowered to 35 µg/$m^3$. Attainment/non-attainment designations for the revised PM2.5 standard will be made by December 2009 with an attainment date of April 2015, although the USEPA could grant an extension of up to 5 years.

The federal attainment deadline for CO was to be December 31, 2000; however, the basin was granted an extension due to exceedances of the CO NAAQS. The SCAB has not had any violations of the federal CO standards since 2002. In March 2005, the SCAQMD adopted a CO Redesignation Request and Maintenance Plan. On May 11, 2007, the USEPA announced approval of the Redesignation Request and Maintenance Plan and that, effective June 11, 2007, the SCAB would be redesignated as an attainment/maintenance area for the federal CO NAAQS. The plan provides for maintenance of the federal CO air quality standard until at least 2015 and commits to revising the plan in 2013 to ensure maintenance through 2025.

The federal annual $NO_2$ standard was met for the first time in 1992 and has not been exceeded since. The SCAB was redesignated as being in attainment for $NO_2$ in 1998. The basin will remain a maintenance/attainment area until 2018, assuming the $NO_2$ standard is not exceeded.

### 3.3.4 EXISTING CONDITIONS

#### Climate

The climate in and around the project area, as with all southern California, is controlled largely by the strength and position of the subtropical high pressure cell over the Pacific Ocean. This maintains moderate temperatures and comfortable humidity, and limits precipitation to a few storms during the winter “wet” season. Temperatures are normally mild, except in the summer months, which commonly bring substantially higher temperatures. In all portions of the basin, temperatures well above 100 degrees F (°F) have been recorded in recent years. The annual average temperature in the basin is approximately 62°F. The distinctive climate of this area is determined primarily by its terrain and geographical location. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns. Local climatic conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity. This normally mild climatic condition is occasionally interrupted by periods of hot weather, winter storms, and Santa Ana (hot easterly flow) winds.

Winds in the project area are usually driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime on-shore sea breezes. At night, the wind generally slows and reverses direction to travel towards the sea. Wind direction can be altered by local canyons, with wind tending to flow parallel to the canyons. During the transition period from one wind pattern to the other, the dominant wind direction rotates into the south and causes a minor wind direction maximum from the south. The frequency of calm winds (less than two miles per hour) is less than ten percent. Therefore, there is little stagnation in the project vicinity, especially during busy daytime traffic hours.

Southern California frequently has temperature inversions which inhibit the dispersion of pollutants. Inversions are described as being either “ground based” or “elevated.” Ground-based inversions, sometimes referred to as radiation inversions, are most severe during clear, cold, early winter mornings. Under conditions of a ground-based inversion, very little mixing or

turbulence occurs, and high concentrations of primary pollutants may occur close to major local roadways. Elevated inversions can be generated by a variety of meteorological phenomena. Elevated inversions act as a lid or upper boundary and restrict vertical mixing. Below the elevated inversion, dispersion is not restricted. Mixing heights for elevated inversions are lower in the summer and more persistent. This low summer inversion puts a lid over the basin and is responsible for the high levels of ozone observed during summer months in the SCAB.

## Monitored Air Quality

Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the basin. Estimates for the basin have been made for existing emissions (SCAQMD 2003). The data indicate that mobile sources are the major source of regional emissions. Motor vehicles (i.e., on-road mobile sources) account for approximately 45 percent of VOC emissions, 63 percent of NOx emissions, and approximately 76 percent of CO emissions.

The SCAQMD is responsible for monitoring air quality in the SCAB and for adopting controls, in conjunction with the CARB, to improve air quality. The SCAQMD has established "source-receptor" areas (SRAs) for monitoring air pollution, based on topographical and meteorological barriers. The project site is located in SRA 18, North Orange County Coastal. The air quality monitoring station designated for this area is the Costa Mesa Station. This is the nearest air quality monitoring station to the project. The Costa Mesa Station is located near Mesa Verde Drive west of Harbor Boulevard and is approximately four miles north of the project site. The air pollutants measured at the Costa Mesa Station include $O_3$, CO, $NO_2$, and $SO_2$. Monitored concentrations of these pollutants for 2003 to 2006 at the Costa Mesa Monitoring Station are identified in Table 3.3-3; data for 2007 is not yet available.

Since the project is located near the coastline, pollutant concentrations in the immediate vicinity of the project are best represented by the data from the Costa Mesa Monitoring Station. However, particulates are not monitored at the Costa Mesa Station. It is likely that particulate levels in the vicinity of the project site are lower than those monitored at the Mission Viejo Monitoring Station, which is the designated station for SRA 19, Saddleback Valley. This station is located east of Los Alisos Boulevard between Jeronimo Road and Trabuco Road approximately 15 miles east of the project site. The air pollutants measured at the Mission Viejo Station include $O_3$, CO, PM10, and PM2.5. Monitored concentrations of these pollutants for 2003 to 2006 at the Mission Viejo Monitoring Station are shown in Table 3.3-4.

As shown in the tables, $O_3$, PM10, and PM2.5 are the air pollutants of primary concern in the project area. The State 1-hour $O_3$ standard was exceeded 4 days in 2003, 2 days in 2004, and was not exceeded in 2005 or 2006 at the Costa Mesa Station. The standard was exceeded between 3 and 16 days each year between 2003 and 2006 at the Mission Viejo Station. As of June 15, 2006, the federal 1-hour $O_3$ standard was revoked with the implementation of the 8-hour standard. The federal 1-hour $O_3$ standard has not been exceeded in the past 4 years at the Costa Mesa Monitoring Station. The federal 1-hour standard was exceeded 4 days in 2003, 1 day in 2005, and was not exceeded in 2004 or 2006 at the Mission Viejo Station.

## TABLE 3.3-3
## AIR QUALITY LEVELS MEASURED AT COSTA MESA MONITORING STATION

| Pollutant | California Standard | National Standard | Year | % Meas.[a] | Max. Level | Days Exceeded State Standard[b] | Days Exceeded National Standard[b] |
|---|---|---|---|---|---|---|---|
| $O_3$ | 0.09 ppm for 1 hr | 0.12 ppm[c] for 1 hr | 2006 | 100 | 0.074 | 0 | 0 |
| | | | 2005 | 92 | 0.085 | 0 | 0 |
| | | | 2004 | 98 | 0.104 | 2 | 0 |
| | | | 2003 | 100 | 0.107 | 4 | 0 |
| $O_3$ | 0.070 ppm for 8 hr | 0.08 ppm for 8 hr | 2006 | 100 | 0.062 | — | 0 |
| | | | 2005 | 92 | 0.072 | — | 0 |
| | | | 2004 | 98 | 0.087 | — | 1 |
| | | | 2003 | 100 | 0.088 | — | 1 |
| CO | 20 ppm for 1 hr | 35 ppm for 1 hr | 2006 | 98 | 3.5 | 0 | 0 |
| | | | 2005 | 96 | 4.1 | 0 | 0 |
| | | | 2004 | 97 | 4.9 | 0 | 0 |
| | | | 2003 | 97 | 7.4 | 0 | 0 |
| CO | 9.0 ppm for 8 hr | 9 ppm for 8 hr | 2006 | 98 | 3.0 | 0 | 0 |
| | | | 2005 | 96 | 3.2 | 0 | 0 |
| | | | 2004 | 97 | 4.1 | 0 | 0 |
| | | | 2003 | 97 | 5.9 | 0 | 0 |
| $NO_2$ | 0.18 ppm for 1 hr | None | 2006 | 98 | 0.101 | 0 | N/A |
| | | | 2005 | 86 | 0.085 | 0 | N/A |
| | | | 2004 | 97 | 0.097 | 0 | N/A |
| | | | 2003 | 96 | 0.107 | 0 | N/A |
| $NO_2$ (Annual) | 0.030 ppm AAM[d] | 0.053 ppm AAM[d] | 2006 | 98 | 0.015 | N/A | No |
| | | | 2005 | 86 | 0.014 | N/A | No |
| | | | 2004 | 97 | 0.016 | N/A | No |
| | | | 2003 | 96 | 0.018 | N/A | No |
| $SO_2$ | 0.04 ppm for 24 hr | 0.14 ppm for 24 hr | 2006 | 92 | 0.005 | 0 | N/A |
| | | | 2005 | 94 | 0.008 | 0 | 0 |
| | | | 2004 | 98 | 0.008 | 0 | 0 |
| | | | 2003 | 93 | 0.012 | 0 | 0 |
| $SO_2$ (Annual) | None | 0.030 ppm AAM[d] | 2006 | 92 | 0.001 | N/A | No |
| | | | 2005 | 94 | 0.001 | N/A | No |
| | | | 2004 | 98 | 0.002 | N/A | No |
| | | | 2003 | 93 | 0.001 | N/A | No |

[a] Percent of year where high pollutant levels were expected when measurements were made

[b] For annual averaging times a yes or no response is given if the annual average concentration exceeded the applicable standard. For the $PM_{10}$ 24 hour standard, daily monitoring is not performed. The first number shown in Days State Standard Exceeded column is the actual number of days measured that State standard was exceeded. The second number shows the number of days the standard would be expected to be exceeded if measurements were taken every day.

[c] With the implementation of the federal 8-hour ozone standard, the 1-hour standard was revoked. The revoked 1-hour standard is shown for information.

[d] Annual Arithmetic Mean

— Data Not Reported

N/A Data not applicable to this standard.

Source: CARB 2007.

## TABLE 3.3-4
## AIR QUALITY LEVELS MEASURED AT MISSION VIEJO MONITORING STATION

| Pollutant | California Standard | National Standard | Year | % Meas.[a] | Max. Level | Days Exceeded State Standard[b] | Days Exceeded National Standard[b] |
|---|---|---|---|---|---|---|---|
| $O_3$ | 0.09 ppm for 1 hr | 0.12 ppm[c] for 1 hr | 2006 | 97 | 0.123 | 12 | 0 |
| | | | 2005 | 99 | 0.125 | 3 | 1 |
| | | | 2004 | 99 | 0.116 | 11 | 0 |
| | | | 2003 | 99 | 0.153 | 16 | 4 |
| $O_3$ | 0.070 ppm for 8 hr | 0.08 ppm for 8 hr | 2006 | 97 | 0.105 | — | 6 |
| | | | 2005 | 99 | 0.085 | — | 1 |
| | | | 2004 | 99 | 0.090 | — | 4 |
| | | | 2003 | 99 | 0.105 | — | 8 |
| CO | 20 ppm for 1 hr | 35 ppm for 1 hr | 2006 | 99 | 1.8 | 0 | 0 |
| | | | 2005 | 96 | 2.2 | 0 | 0 |
| | | | 2004 | 97 | 2.4 | 0 | 0 |
| | | | 2003 | 97 | 2.5 | 0 | 0 |
| CO | 9.0 ppm for 8 hr | 9 ppm for 8 hr | 2006 | 99 | 1.6 | 0 | 0 |
| | | | 2005 | 96 | 1.6 | 0 | 0 |
| | | | 2004 | 97 | 1.5 | 0 | 0 |
| | | | 2003 | 97 | 1.6 | 0 | 0 |
| Particulates PM10 | 50 µg/m$^3$ for 24 hr | 150 µg/m$^3$ for 24 hr | 2006 | 75 | 57 | 1/6 | 0/0 |
| | | | 2005 | 90 | 41 | 0/0 | 0/0 |
| | | | 2004 | 94 | 47 | 0/0 | 0/0 |
| | | | 2003 | 95 | 64 | 2/13 | 0/0 |
| Particulates PM10[e] | 20 µg/m$^3$ AAM[d] | None | 2006 | 75 | 57 | 1/6 | 0/0 |
| | | | 2005 | 90 | 41 | 0/0 | 0/0 |
| | | | 2004 | 94 | 47 | 0/0 | 0/0 |
| | | | 2003 | 95 | 64 | 2/13 | 0/0 |
| Particulates PM2.5[e] | None | 65 µg/m$^3$ for 24 hr | 2005 | — | 35.3 | N/A | 0 |
| | | | 2004 | — | 49.4 | N/A | 0 |
| | | | 2003 | — | 50.6 | N/A | 0 |
| | | | 2002 | — | 58.5 | N/A | 0 |
| Particulates PM2.5 | 12 µg/m$^3$ AAM[d] | 15 µg/m$^3$ AAM[d] | 2006 | — | — | — | — |
| | | | 2005 | — | 10.6 | No | No |
| | | | 2004 | — | 12.0 | No | No |
| | | | 2003 | — | — | — | — |

[a] Percent of year where high pollutant levels were expected when measurements were made.

[b] For annual averaging times a "yes" or "no" response is given if the annual average concentration exceeded the applicable standard. N/A indicates that there is no applicable standard. For the PM10 24-hour standard, daily monitoring is not performed. The first number shown in "Days Exceeded State Standard" column is the actual number of days measured which the State standard was exceeded. The second number shows the number of days the standard would be exceeded if measurements were taken every day.

[c] With the implementation of the federal 8-hour ozone standard, the 1-hour standard was revoked. The revoked 1-hour standard is shown for information.

[d] Annual Arithmetic Mean

[e] On September 21, 2006, the USEPA announced that it was revoking the annual average PM10 standard and lowering the 24-hour PM2.5 standard to 35 µg/m$^3$. The previous standards are presented as the new standards are not fully implemented at this time.

— Data Not Reported

N/A Data not applicable to this standard.

Source: CARB 2007.

The federal 8-hour $O_3$ standard was exceeded one day each in 2003 and 2004 at the Costa Mesa Station. The standard was exceeded between one and eight days over the past four years at the Mission Viejo Station. The recently adopted State 8-hour $O_3$ standard has also been exceeded, but the CARB website is not currently reporting the total number of days. Based on data presented at the CARB website, the State 8-hour $O_3$ standard was not exceeded in 2006, was exceeded 2 days in 2005, and was exceeded at least 4 days each year in both 2003 and 2004 at the Costa Mesa Station. The standard was exceeded at least four days each of the past four years at the Mission Viejo Station. The data shows a distinct downward trend in maximum $O_3$ concentrations and number of days with exceedances at the Costa Mesa Station. However, at the Mission Viejo Station there does not appear to be a trend in either maximum $O_3$ concentrations or days of exceedances in the area.

The State 24-hour concentration standards for PM10 were exceeded 2 days in 2003 and 1 day in 2006 at the Mission Viejo Monitoring Station. This results in an estimate of 13 days of exceedances in 2003 and 6 days of exceedances in 2006 at the station because PM10 monitoring is not performed every day. The State annual average PM10 standard has been exceeded each of the past four years at the Mission Viejo Station. The federal 24-hour PM10 standard has not been exceeded in the past 4 years at the Mission Viejo Station. There does not appear to be a noticeable trend in either maximum particulate concentrations or days of exceedances in the area. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

The federal 24-hour standard for PM2.5 has not been exceeded in the past 4 years at the Mission Viejo Station. Note that on September 21, 2006, the USEPA revised the standard to 35 $\mu g/m^3$. However, since designations for the revised standards will not be made until April 2010, only the number of days exceeding the original standard of 65 $\mu g/m^3$ is reported here.

The State and federal annual average PM2.5 concentration standards were not exceeded in either 2004 or 2005 at the Mission Viejo Station. Complete data is not available for 2003 or 2006. There does not appear to be a noticeable trend in either maximum particulate concentrations or days of exceedances in the area.

The monitored data shown in Tables 3.3-3 and 3.3-4 show that other than the $O_3$, PM10 and PM2.5 exceedances identified, no State or federal standards were exceeded for the remaining criteria pollutants.

## Existing Emissions

Because Hoag is developed, it currently generates air pollutant emissions. The primary source of emissions is generated by activity associated with staff, service, patient, and visitor motor vehicles. Other emissions are generated on the site from the combustion of natural gas for space heating and the generation of electricity. Off-site emissions are associated with the use of natural gas and oil for the generation of electricity. Table 3.3-5 presents the estimated daily pollutant emissions attributable to existing Hoag operations. Hoag currently has 886,270 square feet (sf) of building space and generates 13,998 daily vehicle trips. Based on the uses and trip length data in the SCAQMD Air Quality Handbook (SCAQMD 2003), the average trip length at Hoag is 9.0 miles or 125,892 daily vehicle miles traveled associated with Hoag.

**TABLE 3.3-5**
**EXISTING (2007) HOAG EMISSIONS**

| Source | Pollutant Emissions (lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | CO | VOC | NOx | PM10 | PM2.5 | SOx |
| Vehicular Trips | 1,533.1 | 161.7 | 303.0 | 15.8 | 11.2 | 1.5 |
| Natural Gas Consumption | 2.8 | 0.7 | 16.7 | 0.0 | 0.0 | 0.0 |
| On-Site Electrical Generation | 73.2 | 49.5 | 49.5 | 14.9 | 14.7 | 0.0 |
| **Total Area Emissions** | **1,609.1** | **212.0** | **369.3** | **30.7** | **26.0** | **1.5** |
| **SCAQMD Thresholds** | 550 | 55 | 55 | 150 | 55 | 150 |

Note: Totals may not equal the sum of components due to rounding.

Source: Mestre Greve Associates 2007.

Table 3.3-6 compares existing Hoag emissions to the SCAB's base year (2006) emissions, as presented in the 2003 AQMP. The table shows that the emissions associated with Hoag are a very small fraction of overall emissions in the SCAB.

**TABLE 3.3-6**
**EXISTING HOAG EMISSIONS COMPARED REGIONAL EMISSIONS**

| | Pollutant Emissions (tons/day) | | | | | |
|---|---|---|---|---|---|---|
| | CO | ROG | NOx | PM10 | PM2.5 | SOx |
| Existing Hoag Emissions | 0.805 | 0.106 | 0.185 | 0.015 | 0.013 | 0.001 |
| 2006 South Coast Air Basin[a] | 3,973 | 730 | 950 | 293 | — | 60 |
| Percentage of Basin | 0.0203% | 0.0145% | 0.0194% | 0.0051% | — | 0.0016% |

[a] Sources: SCAQMB 2003 (Tables 3-5A & 3-5B). Mestre Greve Associates 2007.

## Toxic Air Contaminants Emitted at the Hoag Cogeneration Facility

As previously noted, Hoag's cogeneration facility has three permitted internal combustion engines fueled by natural gas, one boiler fueled by natural gas, and one standby internal combustion engine fueled by diesel. The cogeneration facility is designed to accommodate three additional future cogeneration natural gas internal combustion engines to meet anticipated power and heating demand of Hoag at buildout. Hoag's utility plant has five diesel engine generator sets, four natural-gas-fueled boilers, and two natural-gas-fueled heater/chillers.

Table 3.3-7 presents the cancer, chronic non-cancer, and acute risks for all existing equipment (cogeneration facility and utility plant) at Hoag. The existing peak receptor location is at the residences located west of the utility plant. As noted in the table, existing operations result in health risks well below SCAQMD's threshold.

**TABLE 3.3-7**
**EXISTING HEALTH RISK SUMMARY**

| Risk Type | SCAQMD Threshold[a] | Existing Risk | Significant? |
|---|---|---|---|
| Maximum Individual Cancer Risk (per million individuals) | 25 | 16.800 | No |
| Hazard Index − Chronic (chronic non-cancer risk) | 3.0 | 0.065 | No |
| Hazard Index − Acute (acute risk) | 3.0 | 0.282 | No |

[a] SCAQMD Rule 1402 "Control of Toxic Air Contaminants from Existing Sources," amended March 4, 2005.

Note: Per million refers to per million persons exposed to the toxic air contaminants being analyzed.

Source: CDM 2007.

## General Plan Policies

The Natural Resources Element of the General Plan contains goals related to air quality. Relevant goals and policies are identified in Table 3.3-18 with a project consistency analysis.

### 3.3.5 THRESHOLDS OF SIGNIFICANCE

The criteria used to determine the significance of potential project-related air quality impacts are based on the City's Initial Study and the Initial Study Checklist form in Appendix G of the State CEQA Guidelines. Based on these thresholds, the proposed Master Plan Update Project would result in a significant impact related to air quality if it would:

Threshold 3.3-1 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Threshold 3.3-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Threshold 3.3-3 Exceed SCAQMD's construction and operational emissions thresholds. [The significance thresholds recommended in SCAQMD's *CEQA Air Quality Handbook* are presented in Table 3.3-8, SCAQMD Regional Pollutant Emission Thresholds of Significance.]

**TABLE 3.3-8**
**SCAQMD REGIONAL POLLUTANT EMISSIONS THRESHOLDS OF SIGNIFICANCE**

| Phase | Pollutant (lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | VOC | NOx | CO | PM10 | $PM_{2.5}$ | SOx |
| Construction | 75 | 100 | 550 | 150 | 55 | 150 |
| Operation | 55 | 55 | 550 | 150 | 55 | 150 |
| Source: SCAQMD 2003. | | | | | | |

It should be noted that an exceedance of the thresholds presented in Table 3.3-8 does not necessarily cause a violation or contribute to a violation of the federal or State Ambient Air Quality Standards (AAQS) identified in Table 3.3-1. The AAQS are in terms of pollutant concentrations, which are direct measurements of the level of exposure to the pollutants. Violations of the AAQS are measured at the ambient air monitoring stations operated by the SCAQMD and the CARB. The SCAQMD significance thresholds are measured in terms of total daily of pollutant emissions. Pollutant concentrations are dependent on the amount of pollutant emissions and weather patterns that disperse the emissions.

Threshold 3.3-4 Exceed SCAQMD's thresholds of significance for assessing health risk impacts. [These are presented in Table 3.3-9 below. A project with impacts below these thresholds is considered to have a less than significant impact on long-term human health.]

**TABLE 3.3-9**
**SCAQMD THRESHOLDS OF SIGNIFICANCE FOR TOXIC AIR CONTAMINANTS**

| Risk Type | SCAQMD Threshold | |
|---|---|---|
| | Cumulative[a] | Increment |
| Maximum Individual Cancer Risk (per million individuals) | 25.0 | 10.0 |
| Hazard Index − Chronic (chronic non-cancer risk) | 3.0 | 1.0 |
| Hazard Index − Acute (acute risk) | 3.0 | 1.0 |

[a] Cumulative Hoag health risks are compared to SCAQMD Rule 1402 for facility-wide toxic air contaminant emissions (SCAQMD 2006b).

Note: Per million refers to per million persons exposed to the toxic air contaminants being analyzed.

Threshold 3.3-5 Expose sensitive receptors to substantial pollutant concentrations.

Threshold 3.3-6 Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

During preparation of the Initial Study, the City of Newport Beach determined that the proposed Master Plan Update Project would not have significant impacts for the threshold below and no further analysis is presented in this section.

- The proposed Master Plan Update project would not create objectionable odors affecting a substantial number of people.

## 3.3.6 ENVIRONMENTAL IMPACTS

### Impact Analysis

***Threshold 3.3-1: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***

***Threshold 3.3-2:*** ***Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

***Threshold 3.3-3:*** ***Would the project exceed SCAQMD's construction and operational emissions thresholds?***

***Threshold 3.3-5:*** ***Would the project expose sensitive receptors to substantial pollutant concentrations?***

***Short-term Construction Impacts***

Regional Air Quality Impacts

As previously noted, Final EIR No. 142 found that buildout of the Master Plan would result in significant, unavoidable air quality impacts during construction. The proposed Master Plan Update Project is limited to a reallocation of development previously approved in 1992 for Hoag. No specific projects are proposed. Therefore, a detailed analysis of air quality impacts from construction activities associated with the proposed Master Plan Update Project cannot be performed. Because the proposed Master Plan Update Project does not change the allowable development of Hoag, the impact of air pollutant emissions with the Project would not be expected to change significantly from development currently approved. Nevertheless, it can be reasonably assumed that temporary impacts would result from project construction activities. Air pollutants would be emitted by construction equipment; fugitive dust would be generated during grading and/or demolition at the project site; and VOCs (an ozone precursor) would be released during asphalt laying and the application of architectural coatings.

Typically, the greatest levels of air pollutant emissions during construction activities occur during site grading and/or demolition. Operating more than 4 pieces of the largest heavy construction equipment for 8 hours a day or 6 to 8 pieces of smaller equipment for 8 hours a day would generate NOx emissions in excess of the SCAQMD's 100 pounds per day significance threshold. Active disturbance of more than 13.4 acres of exposed soil per day would be required to exceed SCAQMD's 150 pounds per day significance threshold for PM10 even when site watering is performed.

During demolition, heavy equipment use would generate PM10 emissions and the debris haul trucks would also generate emissions. Heavy trucks traveling more than 2,500 vehicle miles (i.e., 50 trips with a 25-mile, one-way trip length) generate NOx emissions greater than SCAQMD's 100 pounds per day threshold. For NOx emissions to remain below the significance threshold, truck trips would need to be significantly limited during construction because the combined emissions from the trucks and heavy equipment could greatly exceed SCAQMD's thresholds of significance. Limitation of trucks and heavy equipment to the degree necessary to remain below the SCAQMD thresholds is not likely or feasible. Therefore, it is anticipated that project-related grading and demolition activities would result in a significant air quality impact.

Other considerable emissions that can occur on a short-term basis include the off-gas (evaporative) emissions of VOC from the application of architectural coatings (e.g., painting) and off-gas emissions of VOC from asphalt paving. Based on the emission factor of 2.62 pounds per acre of asphalt paving (from URBEMIS2002), up to 28.6 acres could be paved daily without exceeding the threshold. It is unlikely that this amount of paving would be required

at Hoag because the entire site is less than 38 acres. Therefore, asphalt paving is not expected to result in a significant air quality impact.

Based on the emission factor of 0.0185 pound per square foot of painted surface (from URBEMIS2002), only 4,054 sf or less of surface could be painted each day without exceeding SCAQMD's thresholds of significance. This is approximately 500 linear feet of an 8-foot-high surface. It is unlikely that painting would be limited to this amount. It should be noted that the emission factor used in this calculation assumes the use of paint with the highest VOC content available for use in the basin and the most inefficient method of application. While this might be very conservative, it is anticipated that VOC emissions during application of architectural coatings would exceed SCAQMD's 75 lbs/day significance threshold.

Local Air Quality Impacts

The SCAQMD has developed a methodology to assess the localized impacts of emissions from within a project site (SCAQMD 2003). SCAQMD recommends, but does not require, comparing projects to localized significance thresholds (LSTs). The LSTs were developed to analyze the significance of potential local air quality impacts of projects and provides screening tables for smaller projects in which emissions may be less than the mass daily emission thresholds analyzed above. The SCAQMD also recommends project-specific air quality modeling for larger projects. Depending on the size and location of specific construction projects relative to sensitive receptors, it is anticipated that individual projects at Hoag would have a significant short-term localized impact for $NO_2$ and PM10. Therefore, the proposed Master Plan Update Project is expected to have a significant impact on local air quality during construction.

In 1998, the CARB identified particulate matter from diesel-fueled engines (Diesel Particulate Matter or DPM) as a Toxic Air Contaminant (TAC). The majority of the heavy construction equipment used during construction would be diesel fueled and would therefore emit DPM. Impacts from toxic substances are related to cumulative exposure and are assessed over a 70-year period. Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of 1 million people due to exposure to the cancer-causing substance over a 70-year lifetime (Cal EPA 2003). Because of the relatively short duration of construction compared to a 70-year lifespan, diesel emissions resulting from the construction at Hoag are not expected to result in a significant impact.

***Impact 3.3-1:*** ***Significant Unavoidable Impact.*** Although the proposed Master Plan Update project would not generate any significant air quality impacts not previously disclosed in Final EIR No. 142, grading and demolition activities associated with the proposed Master Plan Update project may result in significant short-term PM10 impacts and would be expected to result in significant short-term NOx impacts. VOC emission thresholds are expected to be exceeded during the application of architectural coatings. Sensitive receptors could be affected by the increase in emissions over existing conditions. These short-term impacts would be reduced with proposed mitigation, but not to a level considered less than significant. Diesel particulate matter emissions would be less than significant.

### *Long-term Operational Impacts*

Local Air Quality Project Impacts

The primary potential source of local air quality emissions resulting from the Master Plan Update Project would be from motor vehicles as the Project is not expected to result in changes in on-site stationary emissions. As addressed in Section 3.1, Transportation and Circulation, implementation of both the existing Master Plan and proposed Master Plan Update Project would increase traffic volumes when compared to existing traffic volumes in the traffic study area. However, when vehicular trips for the existing Master Plan are compared to the proposed Master Plan Update Project, the proposed Project could generate less traffic. This would occur because of the transfer of allowable development from the Lower Campus to the Upper Campus, as well as the fact that inpatient uses on the Upper Campus generate less traffic than outpatient uses on the Lower Campus. While the proposed Master Plan Update Project is projected to result in fewer vehicle trips than the currently approved Master Plan, the proposed Project will change traffic distribution patterns which will increase traffic volumes at some intersections when compared with existing conditions.

Increased traffic volumes on a roadway can cause pollutant levels to exceed ambient air quality standards. Carbon monoxide (CO) is the pollutant of major concern along roadways because the most notable source of carbon monoxide is motor vehicles. For this reason, carbon monoxide concentrations are usually indicative of the local air quality generated by a roadway network, and are used as an indicator of its impacts on local air quality. CO concentrations are highest near intersections where queuing increases emissions. Local air quality impacts can be assessed by comparing future CO levels with State and federal CO standards and by comparing future CO concentrations with and without a project to determine if a project's contribution is significant.

Compared to future conditions with the existing Master Plan, the proposed Master Plan Update Project is projected to increase total traffic volumes during peak hours at four intersections:

1. Superior Avenue at Hospital Road
2. Hoag Drive/Placentia Avenue at Hospital Road
3. Superior Avenue at 16$^{th}$ Street/Industrial Way
4. Superior Avenue at 17$^{th}$ Street

According to the *Traffic Impact Study*, each of these intersections is projected to operate at Level of Service (LOS) C or better with the proposed Master Plan Update Project for the peak period where the proposed Master Plan Update Project is projected to increase the volume. Superior Avenue at 17$^{th}$ Street is shown to have an AM Peak hour LOS E for Existing and 2015 conditions with and without the proposed Master Plan Update Project and LOS D for 2025 conditions with and without the proposed Master Plan Update Project. The proposed project would not affect the AM peak hour traffic volume at this intersection. The proposed Master Plan Update Project is not projected to affect the level of service at these intersections compared to the existing Master Plan. Peak hour traffic volume increases due to the proposed Master Plan Update Project are less than five percent for all four intersections and would not be expected to alter CO concentrations significantly.

***Impact 3.3-2:*** ***Less Than Significant.*** Based on the modeling from the AQMP and the fact that the proposed Master Plan Update project would not substantially affect intersection operation, in terms of CO generation,

all intersections in the vicinity would not be expected to experience CO concentrations in excess of the State standards. The Master Plan Update Project would not result in any changes in air pollutant emissions from stationary on-site sources that could affect local air quality in the vicinity of Hoag. Therefore, the project would not result in a significant local air quality impact.

Regional Air Quality Impacts

The primary source of regional operational emissions generated by Hoag operations would be motor vehicles. Other emissions are generated from the combustion of natural gas for space and water heating and by the on-site generation of electricity at the cogeneration facility. Emissions were calculated using the guidance presented in the SCAQMD CEQA Air Quality Handbook and information presented on the SCAQMD CEQA Air Quality Handbook website (SCAQMD 2003).

The emissions estimates presented below were calculated for the earliest expected buildout year of the Master Plan Update Project in 2015. Vehicular emissions are projected to decline in future years because a larger number of vehicles will comply with the more stringent (future) air pollution emission standards. Therefore, consideration of the earliest buildout year of the project results in the highest emissions generation by the project, and therefore provides a conservative or worst-case estimate of future project-related emissions.

PM2.5 emissions due to natural gas combustion were calculated using the methodology presented in SCAQMD's "Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds" (2006a). The PM10 emissions were calculated using the above methodologies and then multiplying the PM10 emissions by the applicable PM2.5 fraction derived from emission source, using particulate matter profiles in the California Emission Inventory Data and Reporting System (CEIDRS) developed by CARB. This data indicates that PM2.5 emissions are 0.990 times PM10 emissions.

*Year 2015: No Additional Development*

In 2015, if no additional development occurs and Hoag remains at 886,270 sf of building space, air pollutant emissions from the existing Hoag facilities would be lower than existing conditions (2007) (see Table 3.3-5) because of projected reductions in vehicular emissions associated with the more stringent (future) air pollution emission standards. Emissions related to natural gas consumption and electrical generation are not projected to change. The effect of the proposed project is measured against the change in emissions resulting from the implementation of the proposed Master Plan Update Project. Therefore, the emissions from the existing facilities are subtracted from the total facility emissions with the Master Plan Update Project to determine the change caused by the Project. An estimate of emissions under these conditions is presented in Table 3.3-10. The table shows that emissions with existing land uses would continue to exceed SCAQMD's thresholds of significance for CO, VOC, and NOx.

**TABLE 3.3-10**
**YEAR 2015 HOAG EMISSIONS: NO ADDITIONAL DEVELOPMENT**

| Source | Pollutant Emissions (lbs/day)[a] | | | | | |
|---|---|---|---|---|---|---|
| | CO | VOC | NOx | PM10 | PM2.5 | SOx |
| Vehicular Trips | 808.1 | 90.3 | 152.9 | 14.2 | 9.8 | 1.5 |
| Natural Gas Consumption | 2.8 | 0.7 | 16.7 | 0.0 | 0.0 | 0.0 |
| On-Site Electrical Generation | 73.2 | 49.5 | 49.5 | 14.9 | 14.7 | 0.0 |
| **Total Emissions** | **884.1** | **140.6** | **219.1** | **29.1** | **24.5** | **1.5** |
| **SCAQMD Thresholds** | 550 | 55 | 55 | 150 | 55 | 150 |
| **Exceed SCAQMD Thresholds?** | **Yes** | **Yes** | **Yes** | No | No | No |

[a] Year 2015 vehicular emissions are assumed to be lower than Year 2005 vehicular emissions due to the fact that higher emission vehicles would be phased out.

Note: Totals may not equal the sum of components due to rounding.

Source: Mestre Greve Associates 2007.

*Year 2015 Without Project (Existing Master Plan)*

In 2015, the approved 1992 Master Plan for Hoag would allow for 1,343,238 sf of building space and would generate 27,153 daily vehicle trips (244,377 daily vehicle miles). Additionally, Hoag has identified that three additional generator units would be operational at the cogeneration facility. Table 3.3-11 presents Year 2015 Hoag emissions with implementation of the development pattern and intensity assumed in Final EIR No. 142. Changes proposed as a part of the Master Plan Update Project are not assumed under this scenario

**TABLE 3.3-11**
**YEAR 2015 HOAG EMISSIONS WITH EXISTING MASTER PLAN APPROVED LAND USES (FINAL EIR NO. 142)**

| Source | Pollutant Emissions (lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | CO | VOC | NOx | PM10 | PM2.5 | SOx |
| Vehicular Trips | 1,568.5 | 175.3 | 296.7 | 27.6 | 19.0 | 2.8 |
| 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 Existing Master Plan** | **1,719.2** | **275.5** | **421.2** | **57.4** | **48.5** | **2.8** |

Note: Totals may not equal the sum of components due to rounding.

Source: Mestre Greve Associates 2007.

Table 3.3-12 compares emissions with existing development in 2015 (Table 3.3-10) with buildout of the existing Master Plan. As identified in the table, Year 2015 Hoag emissions would exceed SCAQMD's thresholds of significance for CO, VOC, and NOx with the development patterns and intensity assumed in Final EIR No. 142. Therefore, implementation of the existing Master Plan would result in a significant air quality impact.

**TABLE 3.3-12**
**YEAR 2015 HOAG EMISSIONS INCREASE WITH EXISTING MASTER PLAN APPROVED LAND USES (FINAL EIR NO. 142)**

| Scenario | Pollutant Emissions (lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | CO | VOC | NOx | PM10 | PM2.5 | SOx |
| Existing Uses in 2015 | 884.1 | 140.6 | 219.1 | 29.1 | 24.5 | 1.5 |
| Existing Master Plan Buildout | 1,719.2 | 275.5 | 421.2 | 57.3 | 48.5 | 2.8 |
| **Change In Emissions** | **835.1** | **134.9** | **202.0** | **28.2** | **24.0** | **1.4** |
| **SCAQMD Thresholds** | 550 | 55 | 55 | 150 | 55 | 150 |
| **Exceed SCAQMD Thresholds?** | **Yes** | **Yes** | **Yes** | No | No | No |

Note: Totals may not equal the sum of components due to rounding.

Source: Mestre Greve Associates 2007.

It should be noted that at the time Final EIR No. 142 for the Master Plan was prepared, the SCAQMD had not published its thresholds of significance. Final EIR No. 142 determined the project would not have a significant project-specific regional air quality impact. The finding was based on a comparison of Hoag Master Plan emissions to regional emissions for the basin and SRA 18. The previous analysis concluded that since the project represented such a small portion of regional emissions, it would not result in a significant impact. However, the emissions of CO, VOC, and NOx were projected to be greater than the subsequently published SCAQMD thresholds.

Additionally, pollutant emissions identified for Hoag in Final EIR No. 142 are different than those presented in Table 3.3-11 for all pollutants except VOC, CO, and NOx. Emissions of CO and NOx are projected to be 3 to 7 percent lower and VOC emissions are projected to be 92 percent higher. These differences are due to multiple factors. Vehicular emissions factors and emission factors due to on-site natural gas combustion have been updated since 1991. The cogeneration facility's emissions included in the emission estimate were not discussed specifically in Final EIR No. 142. Vehicular trip generation and trip length estimates for Hoag in 1991 are different from the estimates used to estimate emissions in Table 3.3-11. The current trip length values are derived from the SCAQMD Air Quality Handbook which was published in 1993 subsequent to Final EIR No. 142 and trip generation rates have undergone several refinements since that time.

Implementation of the existing Master Plan would results in a significant air quality impact when compared to the SCAQMD significance thresholds, including potential human health implications associated with each of the subject pollutants. As previously stated, Final EIR No. 142 included mitigation measures to reduce project-related emissions. These measures are presented in the Mitigation Program section.

Year 2015 With Proposed Master Plan Update Project

As proposed, in 2015, Hoag would have 1,373,045 sf of building space (same as the existing Master Plan) and would generate 23,782 daily vehicle trips and 205,209 daily vehicle miles traveled. This represents a 16 percent reduction in trips and vehicle miles traveled with the proposed Master Plan Update Project. This level of reduction would only be experienced if the full 225,000 sf is reallocated from the Lower Campus to the Upper Campus. The Proposed Master Plan Update Project-related emissions, assuming the full reallocation of 225,000 sf from the Lower to the Upper Campus, are presented in Table 3.3-13. Emissions from on-site stationary sources are projected to be the same with either buildout of Hoag under the existing

Master Plan or with the reallocation of square footage assumed as a part of the Master Plan Update Project. The Project's emissions would exceed SCAQMD's thresholds of significance for CO, VOC, and NOx.

**TABLE 3.3-13**
**YEAR 2015 HOAG EMISSIONS WITH THE PROPOSED MASTER PLAN UPDATE PROJECT**

| Source | Pollutant Emissions (lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | CO | VOC | NOx | PM10 | PM2.5 | SOx |
| Vehicular Trips | 1,317.2 | 147.2 | 249.2 | 23.2 | 16.0 | 2.4 |
| 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 the Proposed Master Plan Update Project** | **1,467.9** | **247.4** | **373.6** | **53.0** | **45.4** | **2.4** |

Notes: Assumes the full reallocation of 225,000 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 3.3-14 identifies the net change in emissions that would occur at Hoag in 2015 with implementation of the proposed Master Plan Update Project (as compared to Table 3.3-10). The SCAQMD thresholds are also presented. The Project would result in significant air impacts related to CO, VOC, and NOx, including potential human health implications associated with each of these pollutants.

**TABLE 3.3-14**
**YEAR 2015 HOAG EMISSIONS INCREASE WITH PROPOSED MASTER PLAN UPDATE PROJECT**

| Scenario | Pollutant Emissions (lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | CO | VOC | NOx | PM10 | PM2.5 | SOx |
| Existing Conditions[a] | 884.1 | 140.6 | 219.1 | 29.1 | 24.5 | 1.5 |
| Proposed Master Plan Update Project | 1,467.9 | 247.4 | 373.7 | 52.9 | 45.4 | 2.4 |
| **Change in Emissions** | **583.8** | **106.8** | **154.5** | **23.8** | **20.9** | **0.9** |
| **SCAQMD Thresholds** | 550 | 55 | 55 | 150 | 55 | 150 |
| **Exceed SCAQMD Thresholds?** | **Yes** | **Yes** | **Yes** | No | No | No |

[a] Year 2015 vehicular emissions are assumed to be lower than Year 2005 vehicular emissions due to the fact that higher emission vehicles would be phased out.

Notes: Assumes the total reallocation of 225,000 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 3.3-15 identifies the change in emissions associated with the proposed Master Plan Update Project compared to future conditions with currently approved (but not yet developed) square footage at Hoag. The proposed Master Plan Update Project 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 maximum reductions would only occur with the reallocation of all 225,000 sf from the Lower Campus to the Upper Campus.

Lower reductions would occur with less reallocation. Transferring 225,000 sf to the Upper Campus would reduce the projected CO, VOC and NOx emission increases over the existing Master Plan by approximately 6 to 15 percent. Therefore, the proposed Master Plan Update Project, when considered by itself, does not result in a significant impact. Although implementation of the proposed Master Plan Update Project would result in lower emissions than the approved development, overall development of the Hospital Master Plan, even as modified by the proposed Master Plan Update Project, would result in significant air quality impacts due to the exceedance of the SCAQMD thresholds.

**TABLE 3.3-15**
**FUTURE EMISSIONS EXISTING MASTER PLAN COMPARED TO PROPOSED MASTER PLAN UPDATE PROJECT**

| 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 Proposed Master Plan Update Project | 1,467.9 | 247.4 | 373.7 | 52.9 | 45.4 | 2.4 |
| **Difference** | -251.4 | -28.1 | -47.6 | -4.4 | -3.0 | -0.5 |
| **Lower Emission with Proposed Master Plan Update Project?** | 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 total reallocation of 225,000 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.

***Impact 3.3-3:*** ***Significant Unavoidable Impact.*** Although the proposed Master Plan update Project would not result in a significant impact when compared to the air quality impacts identified for the existing Master Plan in Final EIR No. 142, implementation of the proposed Master Plan Update Project would result in an exceedance of SCAQMD's thresholds of significance for three criteria pollutants: CO, VOC, and NOx. These impacts would be reduced with implementation of Mitigation Measures 3.3-4 and 3.3-5, but not to a level considered less than significant.

***Threshold 3.3-4:*** ***Would the project exceed SCAQMD's thresholds of significance for assessing project-related health risk impacts? (A project with impacts below these thresholds is considered to have a less than significant impact on long-term human health.)***

The potential health impacts were evaluated for cancer, chronic non-cancer, and acute risks using the HARP model. Table 3.3-16 presents the risk values on a project and cumulative basis. The project refers to the three natural gas internal combustion engines that would be installed at the existing cogeneration facility to serve the buildout energy needs of Hoag.[2] Cumulative is all existing and future equipment at both the utility plant and the cogeneration facility. The

[2] The three additional engines are proposed for installation with Master Plan buildout, are not contingent on or necessitated by the proposed Master Plan Update Project. As such, they are not considered a part of the proposed Master Plan Update Project.

applicable rules are SCAQMD Rule 1401 and 1402 for toxic air emissions during the operations of the cogeneration facility. Rules 1401 and 1402 require that for existing facilities, the cumulative cancer risks should not exceed 25 per million, and the cumulative hazard index for chronic non-cancer and acute risks should not exceed 3.0 for any target organ. The incremental project cancer risks should not exceed 10 per million, and the incremental hazard index for chronic non-cancer and acute risks should not exceed 1.0 for any target organ. In addition, the cancer burden should not exceed 0.5 if the individual cancer risks exceed 1 per million.

**TABLE 3.3-16**
**HEALTH RISK SUMMARY**

| Risk Type | SCAQMD Threshold | | Facility Cumulative Risks | Project Incremental Risks | Significant? | |
|---|---|---|---|---|---|---|
| | Cumulative[a] | Increment | | | Cumulative | Increment |
| Maximum Individual Cancer Risk (per million individuals) | 25 | 10 | 20.6 | 5.70 | No | No |
| Hazard Index − Chronic (chronic non-cancer risk) | 3.0 | 1.0 | 0.16 | 0.07 | No | No |
| Hazard Index − Acute (acute risk) | 3.0 | 1.0 | 0.31 | 0.2 | No | No |

[a] Cumulative Hoag health risks are compared to SCAQMD Rile 1402 for facility-wide toxic air contaminant emissions (SCAQMD 2006b).

Note: Per million refers to per million persons exposed to the toxic air contaminants being analyzed.

Source: CDM 2007.

As identified in the Table 3.3-16, the peak residential cancer risk was calculated to be 5.7 per million, which is below the SCAQMD CEQA threshold of 10 per million. The peak cumulative cancer risk was calculated to be 20.6 per million; both occur at the closest residential units north of the cogeneration facility. The cumulative is also below the SCAQMD CEQA threshold of 25 per million. The cumulative health indexes for both chronic non-cancer and acute risks were also modeled and are below the thresholds at all receptor locations. The cancer burden was evaluated as required by Rule 1401 if the incremental cancer risks exceed 1 per million. The highest cancer burden was determined to be 0.005 which is well below the SCAQMD threshold of 0.5. The breakdown of risk contributions by each chemical are provided in Appendix E, *Health Risk Assessment on Cogeneration Plant Operations at Hoag Memorial Hospital* (CDM 2007).

***Impact 3.3-4:*** ***Less than Significant Impact.*** Ongoing operation of the cogeneration facility would have a less than significant impact health risk impact based on the criteria set forth by the SCAQMD.

***Threshold 3.3-6:*** ***Will the project conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?***

### *Consistency with Air Quality Plan*

As set forth in the CEQA Guidelines §15125, an EIR must discuss any inconsistencies between the proposed Master Plan Update Project and applicable general and regional plans. Regional plans that apply to the proposed Master Plan Update Project include the AQMP. In this regard, this section discusses any inconsistencies between the proposed Master Plan Update Project

and the federally approved 2003 AQMP. The purpose of the consistency discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed Master Plan Update Project would interfere with the region's ability to comply with federal and State air quality standards. If the project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD's CEQA Handbook states that "New or amended GP [General Plan] Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A project is consistent with the plan if it furthers one or more policies and does not obstruct other policies. The Handbook identifies two key criteria for consistency:

1. Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (except as provided for CO in Section 9.4 for relocating CO hot spots).

2. Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

***Criterion 1: Increase in the Frequency or Severity of Violations.*** Based on the air quality analysis conducted by Mestre Greve Associates, implementation of the existing Master Plan and the proposed Master Plan Update Project would result in significant short-term construction and long-term operational impacts. Air pollutant emissions from construction activities may be greater than the SCAQMD thresholds, and air pollutant emissions associated with the operation of Hoag would increase over the SCAQMD thresholds with either the existing Master Plan or the proposed Master Plan Update Project. However, as discussed previously, emissions greater than the SCAQMD thresholds do not necessarily result in air pollutant concentrations greater than the AAQS. As identified in Table 3.3-17, Hoag emissions are projected to be only a small fraction of the basinwide emissions. It is unlikely that emissions increases due to the project would considerably affect monitored air pollutant concentrations at the nearest ambient air monitoring stations where violations of the AAQS would be recorded.

**TABLE 3.3-17**
**PROPOSED MASTER PLAN UPDATE PROJECT EMISSIONS COMPARED TO REGIONAL EMISSIONS**

| Scenario | Pollutant Emissions (tons/day) | | | | | |
|---|---|---|---|---|---|---|
| | CO | VOC | NOx | PM10 | PM2.5 | SOx |
| Proposed Master Plan Update Project | 0.734 | 0.124 | 0.187 | 0.026 | 0.023 | 0.001 |
| 2020 SCAB | 2,414 | 584 | 532 | 318 | – | 76 |
| Project as % of SCAB | 0.0304% | 0.0212% | 0.0352% | 0.0082% | – | 0.0013% |
| Source: Mestre Greve Associates 2007. | | | | | | |

The analysis for long-term local air quality impacts showed that local pollutant concentrations are not projected to exceed any of the AAQS. The analysis for short-term construction impacts concluded that it is possible that construction activities could result in local pollutant concentrations in the immediate vicinity of the construction activities exceeding the AAQS. However, this exceedance would be localized to the area immediately surrounding the construction area and would not translate to a violation of the AAQS measured at nearby air

monitoring stations. The Proposed Master Plan Update Project is not projected to increase the frequency or severity of violations of the AAQS. Therefore, the project is found to be consistent with the AQMP for the first criterion.

***Criterion 2: Exceed Assumptions in the AQMP.*** Consistency with the AQMP assumptions is determined by comparing the project's population, housing, and employment growth with the growth assumptions in the AQMP. The emphasis of this criterion is to ensure that the project's growth and associated emissions do not exceed those assumed as a basis for the AQMP. AQMP growth assumptions are based upon the general plans for cities in the SCAB. In addition, the currently approved AQMP's growth assumptions are based upon the *City of Newport Beach General Plan,* which includes the currently approved Hospital Development Plan (Final EIR No. 142). Land use assumptions from the City's General Plan were assumed in the 2003 South Coast AQMP.

Emissions with the proposed Master Plan Update Project would be lower than with the development of the currently approved project (Final EIR No. 142), primarily due to a reduction in project vehicle trips. Since the AQMP predictions are based on the General Plan and the project would result in emissions reductions for all pollutants, the proposed Master Plan Update Project is consistent with the AQMP assumptions.

### *General Plan Policies*

Table 3.3-18 evaluates the consistency of the proposed Master Plan Update Project with the applicable goals and policies of the General Plan.

**TABLE 3.3-18**
**CONSISTENCY OF THE PROPOSED MASTER PLAN UPDATE PROJECT WITH AIR QUALITY-RELATED GOALS AND POLICIES**

| Goals and Policies | Consistency Evaluation |
|---|---|
| *Goal NR 6: Reduce mobile source emissions.* | |
| NR 6.4: Implement the Transportation Demand Management Ordinance which promotes and encourages the use of alternative transportation modes, and provides those facilities such as bicycle lanes that support such alternative modes. *(Imp 7.3, 16.8, 16.11)*<br><br>NR 6.5: Collaborate with local transit agencies to: develop programs and educate employers about employee rideshare and transit; establish mass transit mechanisms for the reduction of work-related and non-work-related vehicle trips; promote mass transit ridership through careful planning of routes, headways, origins and destinations, and types of vehicles; and develop bus shelters, bicycle lanes, and other bicycle facilities. *(Imp 14.4, 14.9, 16.8, 29.1)*<br><br>NR 6.9: Provide education to the public on mobile source emission reduction techniques such as using alternative modes of transportation. *(Imp 29.1)* | As set forth in Final EIR No. 142, the current Hoag Master Plan Project is required to comply with all applicable SCAQMD regulations that pertain to trip reductions. The Project must also comply with the City's Transportation Demand Management Ordinance. Further, Hoag is required to provide new employees with information regarding ridesharing services and programs. The Mitigation Program also requires that each phase of Master Plan development include carpool parking; bicycle racks; showers and lockers; a ridesharing vehicle loading area; vanpool parking; and bus stop improvements. The exact number of facilities will be determined by the City based on the project-specific land use at Hoag. The proposed Master Plan Update Project would be required to continue to comply with these requirements. |
| *Goal NR 7: Reduced air pollutant emissions from stationary sources.* | |
| NR 7.2: Require the use of best Management Practices (BMPs) to minimize pollution and to reduce source emissions. *(Imp 7.1)* | The Mitigation Program adopted in Final EIR No. 142 includes measures to minimize stationary source emissions including those related to energy efficiency and regulated stationary equipment that requires permits from the SCAQMD. The proposed Master Plan Update Project would |

**TABLE 3.3-18 (Continued)**
**CONSISTENCY OF THE PROPOSED MASTER PLAN UPDATE PROJECT WITH AIR QUALITY-RELATED GOALS AND POLICIES**

| Goals and Policies | Consistency Evaluation |
|---|---|
| | be required to continue to comply with these measures. As such, the proposed Master Plan Update Project is consistent with Policy NR 7.2. |
| *Goal NR 8: Reduced air pollutant emissions from construction activities.* | |
| NR 8.1: Require developers to use and operate construction equipment, use building materials and paints, and control dust created by construction activities to minimize air pollutants. *(Imp 7.1)* | Compliance with Policy NR 8.1 is required by the SCAQMD for the proposed Master Plan Update Project. Mitigation Measure 3.3-1 in this SEIR requires compliance with SCAQMD'S Rule 403 which states, "No person shall conduct active operations without utilizing the best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation." This SEIR requires that all applicable Rule 403 measures be applied to the proposed Master Plan Update Project. As such, the proposed Master Plan Update Project is consistent with Policy NR 7.2. |

***Impact 3.3-5:*** ***Less than Significant Impact.*** The proposed project is consistent with the relevant goals and policies related to air quality.

## 3.3.7 MITIGATION PROGRAM

The measures discussed below were adopted as a part of Final EIR No. 142 and would apply to the proposed Master Plan Update. Mitigation measure numbering reflects that provided in Resolution No. 92-43 for certification of Final EIR No. 142. Minor modifications to the mitigation measures are proposed to reflect the current status of the Master Plan Update Project; some of the mitigation measures in Final EIR No. 142 have been implemented and are no longer applicable. ~~Strikeout text~~ is used to show deleted wording and *italic text* is used to show wording that has been added. No additional mitigation is required as a part of the proposed Master Plan Update Project.

### Project Design Features

No project design features are proposed related to air quality and human health risk.

### Standard Conditions and Requirements

The City's applicable standard conditions and requirements related to air quality and human health risk are incorporated into the Mitigation Program adopted as a part of Final EIR No 142.

### Mitigation Measures

#### *Final EIR No. 142 Previously Adopted Mitigation Measures*

Final EIR No. 142 included several mitigation measures related to air quality. The adopted measures are presented below in three categories: (1) Mitigation Measures to Carry Forward; (2) Mitigation Measures Proposed for Revision; and (3) Mitigation Measures No Longer Required. A rationale is provided for each measure in categories 2 and 3. Three new mitigation measures are provided to further reduce significant air quality impacts.

Mitigation Measures to Carry Forward

*Short-term Construction Emissions*

82.[3] Before the issuance of building permits, the Project Sponsor shall submit plans to the Building Department, City of Newport Beach demonstrating compliance with all applicable District Rules, including Rule 401and Visible Emissions, Rule 402, Public Nuisance.

89. The Project Sponsor shall demonstrate to the City Building Department that methods and materials which minimize VOC emissions have been employed where practical, available and where value engineering allows it to be feasible.

106. Project Sponsor shall ensure that all project related grading shall be performed in accordance with the City of Newport Beach Grading Ordinance, which contains procedures and requirements relative to dust control, erosion and siltation control, noise, and other grading related activities.

110. The Project Sponsor shall ensure that low emission mobile and stationary equipment is utilized during construction, and low sulfur fuel is utilized in stationary equipment, when available. Evidence of this fact shall be provided to the City of Newport Beach prior to issuance of any grading or building permit.

*Long-term Operational: Energy Efficiency*

37. Prior to the issuance of grading and building permits for each phase of development, the project proponent shall provide evidence for verification by the Planning Department that energy efficient lighting has been incorporated into the project design.

88. The Project Sponsor shall submit plans to the City Building Department prior to the issuance of a building permit for each phase of development, verifying that energy efficiency will be achieved by incorporating appropriate technologies and systems into future structures, which may include:

- High efficiency cooling/absorption units
- Thermal storage and ceramic cooling towers
- Cogeneration capabilities
- High efficiency water heaters
- Energy efficient glazing systems
- Appropriate off-hour heating/cooling/lighting controls
- Time clocks and photovoltaic cells for lighting controls
- Efficient insulation systems
- Light colored roof and building exteriors
- PL lighting and fluorescent lighting systems
- Motion detector lighting controls
- Natural interior lighting—skylights, clerestories
- Solar orientation, earth berming and landscaping

[3] Measure 82 also serves as an energy efficiency mitigation measure.

96. Prior to issuance of a building permit, the Project Sponsor shall demonstrate to the City that the thermal integrity of new buildings is improved with automated time clocks or occupant sensors to reduce the thermal load.

97. Prior to issuance of a building permit, the Project Sponsor shall demonstrate to the City that window glazing, wall insulation, and efficient ventilation methods have been incorporated into building designs.

98. Prior to issuance of a building permit, the Project Sponsor shall demonstrate that building designs incorporate efficient heating units and other appliances, such as water heater, cooking equipment, refrigerators, furnaces and boiler units.

99. Prior to issuance of a building permit, the Project Sponsor shall incorporate into building designs, where feasible, passive solar designs and solar heaters.

Mitigation Measures Proposed for Revision

*Long-term Operational*

36. Prior to the issuance of grading permits for each phase of development, the Project Sponsor shall provide evidence for verification by the Planning Department that the necessary permits have been obtained from the SCAQMD for regulated commercial equipment incorporated within each phase. An air quality analysis shall be conducted prior to each phase of development for the proposed mechanical equipment contained within that phase that identifies additional criteria pollutant emissions generated by the mechanical equipment to be installed in the phase. ~~If the new emissions, when added to existing project emissions could result in impacts not previously considered or significantly change the land use impact, appropriate CEQA documentation shall be prepared prior to issuance of any permits for that phase of development. Each subsequent air quality analysis shall be reviewed and approved by the SCAQMD~~.

    **Rationale:** Mitigation Measure 36 requires verification of necessary permits from the SCAQMD for regulated equipment. It further states that if the new emissions result in impacts not previously considered or that will significantly change the land use impact, appropriate CEQA documentation shall be prepared prior to issuance of any permits for that phase of development. This mitigation measure is combining two processes. The SCAQMD would review the data pertaining to the use of regulated equipment. In order for the Applicant to receive the required permit, the project would need to meet the SCAQMD-established standards. The issue pertaining to new significant impacts associated with emissions or land use impacts would not be within SCAQMD's jurisdiction, so to avoid confusion this portion of the mitigation measure is recommended for deletion. The City of Newport Beach would continue to be responsible for ensuring that appropriate CEQA documentation is prepared. The recommended changes are shown below. ~~Strikeout text~~ is used to show deleted wording. This measure would continue to apply to the proposed Hoag Hospital Master Update Project.

38. Prior to the issuance of grading and building permits for each phase of Master Plan development, the Project Sponsor shall provide evidence that site plans incorporate the site development requirements of Ordinance No. 91-16, as appropriate, to the Traffic Engineering Division and Planning Department for review and Planning Commission approval. Requirements outlined in the Ordinance include:

a. A minimum of five percent of the provided parking at new facilities shall be reserved for carpools. These parking spaces shall be located near the employee entrance or at other preferred locations.

b. A minimum of two bicycle lockers per 100 employees shall be provided. Additional lockers shall be provided at such time as demands warrants.

c. A minimum of one shower and two lockers shall be provided.

d. Information of transportation alternatives shall be provided to all employees.

e. A rideshare vehicle loading area shall be designated in the parking area.

f. The design of all parking facilities shall incorporate provisions for access and parking of vanpool vehicles.

g. Bus stop improvements shall be *coordinated with the Orange County Transportation Authority, consistent with the requirements of Mitigation Measure 30* ~~required for developments located along arterials where public transit exists or is anticipated to exist within five years~~.

The exact number of each of the above facilities within each phase of the Master Plan shall be determined by the City during review of grading and building permit applications for each phase. The types and numbers of facilities required of each phase will reflect the content of the Ordinance at the time that a permit application is deemed complete by the Planning Department.

**Rationale:** For Mitigation Measure 38, a revision to item "g" is proposed to cross-reference Mitigation Measure 30, which pertains to bus turnouts. The location and design of bus turnouts is within jurisdiction of the Orange County Transportation Authority (OCTA). The recommended changes are shown below. ~~Strikeout text~~ is used to show deleted wording and *italic text* is used to show wording that has been added.

<u>Mitigation Measures No Longer Required</u>

*Short-term Construction Emissions*

87. The Project Sponsor shall submit plans to the City Building Department verifying that all roadways associated with the development of the Master Plan will be paved early in the project, as a part of Phase I Master Plan development construction activities.

**Rationale:** Mitigation Measure 87 was adopted as a part of Final EIR No. 142 and has been implemented; all roads are paved.

105. The project sponsor shall ensure that all trucks used for hauling material shall be covered to minimize material loss during transit.

**Rationale:** Mitigation Measure 105 is covered by the California Vehicle Code, which requires covering or adequate freeboard (i.e., the height of the side wall above the load) to minimize material loss.

106. Project sponsor shall ensure that all project related grading shall be performed with the Newport Beach Grading Ordinance which contains procedures and requirements relative to dust control, erosion and siltation control, noise, and other grading related activities.

**Rationale:** Mitigation Measure 106 addresses compliance with the City's Grading Ordinance, which is required of all grading activity in the City.

107. Prior to issuance of grading permits, the project sponsor shall demonstrate compliance with SCAQMD Rule 403 which will require watering during earth moving operations. To further reduce dust generation, grading should not occur when wind speeds exceed 20 miles per hour (MPH), and soil binders should be spread on construction sites or unpaved areas. Additional measures to control fugitive dust include street sweeping of roads used by construction vehicles and wheel washing before construction vehicles leave the site.

**Rationale:** SCAQMD's Rule 403 has been amended since adoption of Final EIR No. 142. Mitigation Measure 3.3-1, below, reflects current requirements and is recommended to replace Mitigation Measure 107.

109. Prior to issuance of a grading permit for each phase of construction the Project Sponsor shall submit an analysis to the City Building Department that documents the criteria emissions factors for all stationary equipment to be used during that phase of construction. The analysis shall utilize emission factors contained in the applicable SCAQMD Handbook. The analysis shall also be submitted to the City of Newport Beach Planning Department for review and approval.

**Rationale:** Mitigation Measure 109 is proposed for deletion because it is vague. Mitigation Measure 3.3-2, below, would achieve the same results (or better) and provides a greater level of specificity.

121. Prior to issuance of a grading permit for each individual phase of development, the Project Sponsor shall conduct a CO hot spot analysis for the subject phase of development. This analysis shall utilize the EMFAC7EP emission factor program for the buildout year of the subject phase of development and the CALINE4 CO hot spot model or the model recommended for such analysis at that time. The results of this analysis shall be submitted to the City of Newport Beach Planning Department for review. City staff will verify consistency with the results of the project buildout CO analysis.

**Rationale:** Mitigation Measure 121 is proposed for deletion because the analysis shows that the Project is not projected to result in a CO hot spot at any intersections affected by the project. Further, the SCAB is technically in attainment of the CO ambient air quality standards and the AQMP contains a CO attainment demonstration that shows that CO concentrations do not exceed the ambient air quality standard even at the four worst intersections in the basin.

***Additional Mitigation Measures to Reduce Impacts of the Proposed Master Plan Update Project***

Short-term Construction Emissions

*Particulate Emissions*

MM 3.3-1 During construction of the Project, the Applicant and its Contractors shall be required to comply with regional rules, which assist in reducing short-term air pollutant emissions. The South Coast Air Quality Management District's (SCAQMD) Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Two options are presented in Rule 403: monitoring of particulate concentrations or active control. Monitoring involves a sampling network around the project with no additional control measures unless specified concentrations are exceeded. The active control option does not require any monitoring, but requires that a list of measures be implemented starting with the first day of construction.

Rule 403 requires that "No person shall conduct active operations without utilizing the best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation." The measures from Table 1 of Rule 403 are presented in this SEIR as Table A. It is required that all applicable and feasible measures in Table A are implemented. At this time, specific construction projects are not specified so it is unknown which measures will be applicable and feasible. All applicable and feasible control measures for each source category used during construction shall be implemented. Prior to permit issuance, the Applicant shall submit a list of applicable measures that will be implemented along with a list of inapplicable and infeasible measures that will not be implemented for the specific construction project.

Rule 403 requires that "Large Projects" implement additional measures. A Large Project is defined as "any active operations on property which contains 50 or more acres of disturbed surface area, or any earthmoving operation with a daily earthmoving or throughput volume of 5,000 cubic yards for more than three times during the most recent 365 day period." Grading of the project is not considered a Large Project under Rule 403. However, the project shall implement all applicable and feasible measures specified in Table 2 (presented in this SEIR as Table B) to the greatest extent possible. This results in a higher reduction of fugitive dust emissions than would be achieved through complying solely with Table A. At this time, specific construction projects are not specified so it is unknown which measures will be applicable and feasible. Prior to permit issuance, the Applicant shall submit a list of applicable measures that will be implemented for the specific construction project along with justification for the infeasibility finding.

Rule 403 also requires that the construction activities "shall not cause or allow PM10 levels to exceed 50 micrograms per cubic meter [$\mu g/m^3$] when determined by simultaneous sampling, as the difference between upwind and downwind sample." Projects that cannot meet this performance standard are required to

implement the applicable actions specified in Table 3 of Rule 403 (presented in this SEIR as Table C).

Rule 403 requires that that the Project shall not "allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation." All track-out from an active operation is required to be removed at the conclusion of each workday or evening shift. Any active operation with a disturbed surface area of five or more acres or with a daily import or export of 100 cubic yards or more of bulk materials must use at least one of the measures listed in Table D at each vehicle egress from the site to a paved public road.

*Construction Equipment Emissions*

MM 3.3-2 Prior to issuance of each grading permit, the Applicant shall include the following notes on the Contractor Specifications submitted for review and approval by the City of Newport Beach Department of Public Works:

To reduce construction equipment emissions, the following measures shall be implemented:

- Maintain construction equipment engines by keeping them tuned.
- Use existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Configure construction parking to minimize traffic interference.
- Minimize obstruction of through-traffic lanes. Construction shall be planned so that lane closures on existing streets are kept to a minimum.
- Schedule construction operations affecting traffic for off-peak hours when possible.
- Develop a Traffic Plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service).

MM 3.3-3 Prior to issuance of each building permit for the proposed Master Plan Update Project, the Applicant shall include the following notes on the Contractor Specifications submitted for review and approval by the City of Newport Beach Building Department:

- Minimize the amount of paint used by using pre-coated, pre-colored, and naturally colored building materials.
- Use high-transfer efficiency painting methods such as HVLP (High Volume Low Pressure) sprayers and brushes/rollers were possible.

## TABLE A
## REQUIRED BEST AVAILABLE CONTROL MEASURES (RULE 403 TABLE 1)

| Source Category | |
|---|---|
| **Control Measure** | **Guidance** |
| **Backfilling** | |
| 01-1 Stabilize backfill material when not actively handling; and<br>01-2 Stabilize backfill material during handling; and<br>01-3 Stabilize soil at completion of activity. | • Mix backfill soil with water prior to moving<br>• Dedicate water truck or high capacity hose to backfilling equipment<br>• Empty loader bucket slowly so that no dust plumes are generated<br>• Minimize drop height from loader bucket |
| **Clearing and Grubbing** | |
| 02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and<br>02-2 Stabilize soil during clearing and grubbing activities; and<br>02-3 Stabilize soil immediately after clearing and grubbing activities. | • Maintain live perennial vegetation where possible<br>• Apply water in sufficient quantity to prevent generation of dust plumes |
| **Clearing Forms** | |
| 03-1 Use water spray to clear forms; or<br>03-2 Use sweeping and water spray to clear forms; or<br>03-3 Use vacuum system to clear forms. | • Use of high pressure air to clear forms may cause exceedance of Rule requirements |
| **Crushing** | |
| 04-1 Stabilize surface soils prior to operation of support equipment; and<br>04-2 Stabilize material after crushing. | • Follow permit conditions for crushing equipment<br>• Pre-water material prior to loading into crusher<br>• Monitor crusher emissions opacity<br>• Apply water to crushed material to prevent dust plumes |
| **Cut and Fill** | |
| 05-1 Pre-water soils prior to cut and fill activities; and<br>05-2 Stabilize soil during and after cut and fill activities. | • For large sites, pre-water with sprinklers or water trucks and allow time for penetration<br>• Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts |
| **Demolition – Mechanical/Manual** | |
| 06-1 Stabilize wind erodible surfaces to reduce dust; and<br>06-2 Stabilize surface soil where support equipment and vehicles will operate; and<br>06-3 Stabilize loose soil and demolition debris; and<br>06-4 Comply with AQMD Rule 403. | • Apply water in sufficient quantities to prevent the generation of visible dust plumes |
| **Disturbed Soil** | |
| 07-1 Stabilize disturbed soil throughout the construction site; and<br>07-2 Stabilize disturbed soil between structures | • Limit vehicular traffic and disturbances on soils where possible<br>• If interior block walls are planned, install as early as possible<br>• Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes |

## TABLE A (Continued)
## REQUIRED BEST AVAILABLE CONTROL MEASURES (RULE 403 TABLE 1)

| Source Category | |
|---|---|
| **Control Measure** | **Guidance** |
| **Earth-Moving Activities** | |
| 08-1 Pre-apply water to depth of proposed cuts; and<br>08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and<br>08-3 Stabilize soils once earth-moving activities are complete. | • Grade each project phase separately, timed to coincide with construction phase<br>• Upwind fencing can prevent material movement on site<br>• Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes |
| **Importing/Exporting of Bulk Materials** | |
| 09-1 Stabilize material while loading to reduce fugitive dust emissions; and<br>09-2 Maintain at least six inches of freeboard on haul vehicles; and<br>09-3 Stabilize material while transporting to reduce fugitive dust emissions; and<br>09-4 Stabilize material while unloading to reduce fugitive dust emissions; and<br>09-5 Comply with Vehicle Code Section 23114. | • Use tarps or other suitable enclosures on haul trucks<br>• Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage<br>• Comply with track-out prevention/mitigation requirements<br>• Provide water while loading and unloading to reduce visible dust plumes |
| **Landscaping** | |
| 10-1 Stabilize soils, materials, slopes | • Apply water to materials to stabilize and maintain materials in a crusted condition<br>• Maintain effective cover over materials<br>• Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes<br>• Hydroseed prior to rain season |
| **Road Shoulder Maintenance** | |
| 11-1 Apply water to unpaved shoulders prior to clearing; and<br>11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance. | • Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs<br>• Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs |
| **Screening** | |
| 12-1 Pre-water material prior to screening; and<br>12-2 Limit fugitive dust emissions to opacity and plume length standards; and<br>12-3 Stabilize material immediately after screening. | • Dedicate water truck or high capacity hose to screening operation<br>• Drop material through the screen slowly and minimize drop height<br>• Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point |
| **Staging Areas** | |
| 13-1 Stabilize staging areas during use; and<br>13-2 Stabilize staging area soils at project completion. | • Limit size of staging area<br>• Limit vehicle speeds to 15 miles per hour<br>• Limit number and size of staging area entrances/exists |
| **Stockpiles/ Bulk Material Handling** | |
| 14-1 Stabilize stockpiled materials.<br>14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an | • Add or remove material from the downwind portion of the storage pile<br>• Maintain storage piles to avoid steep sides or faces |

## TABLE A (Continued)
## REQUIRED BEST AVAILABLE CONTROL MEASURES (RULE 403 TABLE 1)

| Source Category | |
|---|---|
| **Control Measure** | **Guidance** |
| operational water irrigation system that is capable of complete stockpile coverage. | |
| **Traffic Areas for Construction Activities** | |
| 15-1 Stabilize all off-road traffic and parking areas; and<br>15-2 Stabilize all haul routes; and<br>15-3 Direct construction traffic over established haul routes. | • Apply gravel/paving to all haul routes as soon as possible to all future roadway areas<br>• Barriers can be used to ensure vehicles are only used on established parking areas/haul routes |
| **Trenching** | |
| 16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and<br>16.2 Stabilize soils at the completion of trenching activities. | • Pre-watering of soils prior to trenching is an effective preventive measure.<br>• For deep trenching activities, pre-trench to 18 inches, soak soils via the pre-trench, and resume trenching<br>• Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment |
| **Truck Loading** | |
| 17-1 Pre-water material prior to loading; and<br>17.2 Ensure that freeboard exceeds six inches (CVC 23114) | • Empty loader bucket such that no visible dust plumes are created<br>• Ensure that the loader bucket is close to the truck to minimize drop height while loading |
| **Turf Overseeding** | |
| 18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and<br>18-2 Cover haul vehicles prior to exiting the site. | • Haul waste material immediately off-site |
| **Unpaved Roads/Parking Lots** | |
| 19-1 Stabilize soils to meet the applicable performance standards; and<br>19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots. | • Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements |
| **Vacant Land** | |
| 20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures. | |
| Source: SCAQMD 2005. | |

## TABLE B
## DUST CONTROL MEASURES FOR LARGE OPERATIONS (RULE 403 TABLE 2)

| Fugitive Dust Source Category<br>Control Actions | |
|---|---|
| **Earth-moving (except construction cutting and filling areas, and mining operations)** | |
| (1a) | Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations;<br>OR |
| (1a-1) | For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction. |
| **Earth-moving: Construction fill areas:** | |
| (1b) | Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations. |
| **Earth-moving: Construction cut areas and mining operations:** | |
| (1c) | Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors. |
| **Disturbed surface areas (except completed grading areas)** | |
| (2a/b) | Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area. |
| **Disturbed surface areas: Completed grading areas** | |
| (2c) | Apply chemical stabilizers within five working days of grading completion;<br>OR |
| (2d) | Take actions (3a) or (3c) specified for inactive disturbed surface areas. |
| **Inactive disturbed surface areas** | |
| (3a) | Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions;<br>OR |
| (3b) | Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface;<br>OR |
| (3c) | Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter;<br>OR |
| (3d) | Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas. |
| **Unpaved Roads** | |
| (4a) | Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day];<br>OR |
| (4b) | Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour;<br>OR |
| (4c) | Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface. |

## TABLE B (Continued)
## DUST CONTROL MEASURES FOR LARGE OPERATIONS (RULE 403 TABLE 2)

| Fugitive Dust Source Category<br>Control Actions | |
|---|---|
| **Open storage piles** | |
| (5a) | Apply chemical stabilizers;<br>OR |
| (5b) | Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust;<br>OR |
| (5c) | Install temporary coverings;<br>OR |
| (5d) | Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities. |
| **All Categories** | |
| (6a) | Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used. |
| Source: SCAQMD 2005. | |

## TABLE C
## CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS (RULE 403 TABLE 3)

| Fugitive Dust Source Category<br>Control Actions | |
|---|---|
| **Earth-moving** | |
| (1A) | Cease all active operations;<br>OR |
| (2A) | Apply water to soil not more than 15 minutes prior to moving such soil. |
| **Disturbed surface areas** | |
| (0B) | On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months;<br>OR |
| (1B) | Apply chemical stabilizers prior to wind event;<br>OR |
| (2B) | Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day;<br>OR |
| (3B) | Take the actions specified in Table 2, Item (3c);<br>OR |
| (4B) | Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas. |
| **Unpaved Roads** | |
| (1C) | Apply chemical stabilizers prior to wind event;<br>OR |
| (2C) | Apply water twice per hour during active operation;<br>OR |
| (3C) | Stop all vehicular traffic. |

**TABLE C (Continued)**
**CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS (RULE 403 TABLE 3)**

| Fugitive Dust Source Category<br>Control Actions | |
|---|---|
| **Open Storage Piles** | |
| (1D) | Apply water twice per hour;<br>OR |
| (2D) | Install temporary coverings. |
| **Paved Road Track-Out** | |
| (1E) | Cover all haul vehicles;<br>OR |
| (2E) | Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads. |
| **All Categories** | |
| (1F) | Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used. |
| Source: SCAQMD 2005. | |

**TABLE D**
**TRACK-OUT CONTROL OPTIONS**

| Control Options | |
|---|---|
| (A) | Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long. |
| (B) | Pave the surface extending at least 100 feet and a width of at least 20 feet wide. |
| (C) | Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle under carriages before vehicles exit the site. |
| (D) | Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. |
| (E) | Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified items (A) through (D) above. |
| Source: SCAQMD 2005. | |

### 3.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

**Short-term Construction Impacts**

Consistent with the findings of Final EIR No. 142 for the existing Hoag Master Plan Project, the proposed Hoag Hospital Master Plan Update Project would result in air pollutant emissions that exceed SCAQMD's construction thresholds. The proposed mitigation program would reduce construction-related emissions, but not to a level considered less than significant. Therefore, short-term construction air quality impacts, including potential human health implications, would be significant even with mitigation incorporated resulting in a significant unavoidable adverse impact.

**Long-term Operational Impacts**

The proposed Master Plan Update Project could generate fewer pollutant emissions than would occur with the already-approved Master Plan because of trip reductions associated with the proposed Master Plan Update Project. The amount of reduction would be dependent on the

amount of square feet reallocated from the Lower Campus to the Upper Campus. Therefore, compared to the long-term air quality impacts associated with the existing Master Plan, the proposed Master Plan Update Project's impacts could be reduced and would, therefore, be less than significant, However, consistent with the findings of Final EIR No. 142 for the existing Hoag Master Plan Project, the proposed Master Plan Update Project's operations would result in emissions of CO, VOC, and NOx, which would exceed the SCAQMD-established operational phase thresholds. The proposed mitigation measures would reduce these impacts, but not to a level considered less than significant. Consequently, implementation of the proposed Master Plan Update Project would result in unavoidable, significant long-term regional air quality impacts, including potential human health implications.

## 3.4 NOISE

Mestre Greve Associates prepared a noise assessment in August 2007 for the proposed Hoag Master Plan Update project. The noise assessment is summarized in this section of the Supplemental EIR (SEIR) and is included in its entirety in Appendix F.

### 3.4.1 BACKGROUND

The previous Final EIR No 142 (1991) found that the project would not result in any significant traffic noise impacts but would contribute to existing noise level exceedances along five road segments: West Coast Highway from Superior Avenue to east of Bayside; Balboa Boulevard southeast of Newport Boulevard; Superior Avenue between 15th Street and Placentia; Newport Boulevard between Balboa Boulevard and north of Hospital Road; and Dover Drive north of West Coast Highway. Final EIR No. 142 identified that the project's incremental addition to cumulative traffic noise impacts was a significant and unavoidable cumulative noise impact (page 5-8).

Final EIR No. 142 found that an exhaust fan was generating excessive noise levels resulting in a significant impact. Mitigation was identified, but the fan is currently generating noise levels in excess of the mitigation requirements. Loading dock noise was not identified in Final EIR No. 142. However, the noise measurements performed for the exhaust fan analysis were in the general location of the loading dock. Grease traps were not in use at Hoag in 1991 and have only recently been implemented to comply with water quality regulations. Therefore, noise generated by the grease trap cleaning was not analyzed in the previous EIR.

Final EIR No. 142 also assessed impacts on the project from traffic noise. As a Master Plan, specific projects were not defined. The EIR concluded that patios and buildings located within the 65 CNEL roadway contours could be significantly impacted. Mitigation was identified.

As addressed in Section 3.1 of this SEIR, Final EIR No. 142 found that the intensification of development on the Upper Campus would result in a significant unavoidable land use impact to residential units to the west when the combination with visual (shade and shadow) and noise impacts was considered.

### 3.4.2 NOISE CRITERIA BACKGROUND

Sound is technically described in terms of the loudness (amplitude) and the frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound that is 10 dB higher than another is judged to be twice as loud; and 20 dB higher is judged as four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud).

Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Exhibit 3.4-1 provides examples of various noises and their typical A-weighted noise level.

Sound levels decrease as a function of distance from the source because of wave divergence, atmospheric absorption, and ground attenuation. As the sound wave form travels away from the source, the sound energy is dispersed over a greater area, thereby dispersing the sound power of the wave. Atmospheric absorption also influences the levels that are received by the observer. The greater the distance traveled, the greater the influence and the resultant fluctuations of the sound wave. The degree of absorption is a function of the frequency of the sound as well as the humidity and temperature of the air. Turbulence and gradients of wind, temperature, and humidity also play a significant role in determining the degree of attenuation. Intervening topography can also have a substantial effect on the perceived noise levels.

Noise has been defined as unwanted sound, and it is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and to prevent disruption of certain human activities. These criteria are based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses, and annoyance. Each of these potential noise effects on people is briefly discussed in the following narratives.

***Hearing loss*** is not a concern in community noise situations of this type. The potential for noise-induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Typical neighborhood noise levels, including very noisy airport environs, are not sufficiently loud to cause hearing loss.

***Speech interference*** is one of the primary concerns in environmental noise problems. Normal conversational speech is in the range of 60 to 65 dBA and any noise in this range or louder may interfere with speech. There are specific methods of describing speech interference as a function of distance between speaker and listener and voice level.

***Sleep interference*** is a major noise concern for traffic noise. Sleep disturbance studies have identified interior noise levels that have the potential to cause sleep disturbance. Sleep disturbance does not necessarily mean awakening from sleep, but can refer to altering the pattern and stages of sleep.

***Physiological responses*** are those measurable effects of noise on people that are realized as physical changes in the body (e.g., changes in pulse rate, blood pressure). While such effects can be induced and observed, the extent to which these physiological responses cause harm or are a sign of harm is not known.

***Annoyance*** is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability.

## Noise Assessment Metrics

The description, analysis, and reporting of community noise levels around communities is made difficult by the complexity of human response to noise and the myriad of noise metrics that have been developed for describing noise impacts. Each of these metrics attempts to quantify noise levels with respect to community response. Most of the metrics use the A-Weighted noise level to quantify noise impacts on humans. As previously identified, A-Weighting is a frequency weighting that accounts for human sensitivity to different frequencies.

Noise metrics can be divided into two categories: single-event and cumulative. Single-event metrics describe the noise levels from an individual event such as an aircraft flyover or perhaps

a heavy equipment pass-by. Cumulative metrics average the total noise over a specific time period, which is typically 1 hour or 24 hours for community noise problems.

Several rating scales have been developed to measure community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on man; (2) the variety of noises found in the environment; (3) the variations in noise levels that occur as a person moves through the environment; and (4) noise variations associated with the time of day. The rating scales are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two primary noise scales are the Equivalent Noise Level (LEQ) and the Community Noise Equivalent Level (CNEL). These scales are described in the following paragraphs along with the LDN and L(%) scales that are also used for community noise assessment.

***LEQ*** is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. LEQ is the "energy" average noise level during the time period of the sample. LEQ can be measured for any time period, but is typically measured for one hour. This one-hour noise level can also be referred to as the Hourly Noise Level (HNL); it is the energy sum of all the events and background noise levels that occur during that time period.

***CNEL*** (Community Noise Equivalent Level) is the predominant rating scale used in California for land use compatibility assessment. The CNEL scale represents a time-weighted 24-hour average noise level based on the A-weighted decibel. "Time-weighted" refers to the fact that noise which occurs during certain sensitive time periods is penalized for occurring at these times. The evening time period (7 PM to 10 PM) penalizes noises by 5 dBA, while nighttime (10 PM to 7 AM) noises are penalized by 10 dBA. These time periods and penalties were selected to reflect people's increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a "CNEL of 60 dBA," "60 dBA CNEL," or simply "60 CNEL." Typical noise levels in terms of the CNEL scale for different types of communities are presented in Exhibit 3.4-2.

***Ldn***, the day-night scale is similar to the CNEL scale except that evening noises are not penalized. It is a measure of the overall noise experienced during an entire day. In the Ldn scale, those noise levels that occur during the night (10 PM to 7 AM) are penalized by 10 dB. This penalty was selected in an attempt to account for increased human sensitivity to noise during the quieter period of a day, when resting and sleep are the most probable activities.

***L(%)*** is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. L(%) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example, since 5 minutes is 25 percent of 20 minutes, L(25) is the noise level that is equal to or exceeded for 5 minutes in a 20-minute measurement period. The L(50) noise level is the median noise level. For half of the measurement period, the noise level exceeds the L(50) and half the noise level is less than the L(50). The L(90) is considered the background noise level and is the level exceeded 90 percent of the time.

## Noise Criteria

The *City of Newport Beach Noise Ordinance* and *General Plan Noise Element* contain the City's policies on noise. The City's Noise Ordinance applies to noise generated on one property as it

affects a neighboring property. Typically, it sets limits on noise levels that can be experienced at the neighboring property. The Noise Ordinance is part of the City's *Municipal Code* and is enforceable throughout the city. The *General Plan Noise Element* identifies limits on noise levels from transportation noise sources, vehicles on public roadways, railroads, and aircraft. These limits are imposed on new development. New development must incorporate the measures to ensure that the limits are not exceeded. Components of the City's Noise Ordinance, Noise Element, and the PC Text are applicable to Hoag.

### *City of Newport Beach Noise Element*

The *General Plan Noise Element* specifies outdoor and indoor noise limits for various land uses impacted by transportation noise sources. The noise limits specified in the City's Noise Element are in terms of CNEL. The standard states that the exterior noise exposure level shall not exceed 65 CNEL and the interior noise exposure level shall not exceed 45 CNEL for residential and hospital land uses.

### *City of Newport Beach Noise Ordinance*

The *Newport Beach Noise Ordinance* is presented in three sections of the *Municipal Code*: Sections 10.26, 10.28, and 10.32. Section 10.28 "Loud and Unreasonable Noise" is what is often referred to as a "Nuisance Ordinance" because it does not contain any specific noise level limits. It prohibits "the making, allowing, creation or maintenance of loud and unreasonable, unnecessary, or unusual noises which are prolonged, unusual, annoying, disturbing and/or unreasonable in their time, place and use are a detriment to public health, comfort, convenience, safety, general welfare and the peace and quiet of the City and its inhabitants." The specific provisions of Section 10.28 were revised substantially by the City in 2001, but the concept of the section was unchanged. Sections 10.28.040 and 10.28.045 are relevant to Hoag because they regulate construction noise and property maintenance noise. These Noise Ordinance sections limit the hours of these activities to daytime hours. Section 10.32 "Sound Amplifying Equipment" regulates the use of sound amplification equipment and provides for permitting of sound amplification equipment.

Section 10.26 is the most relevant to Hoag because it presents specific standards for noise generated on one property so that it does not significantly impact adjacent properties. This section is summarized and the specific noise standards from the Noise Ordinance are presented below. Section 10.26 was adopted in 1995. Prior to that time (e.g., when Final EIR No. 142 was certified by the City of Newport Beach), the City had not established specific sound level limits.

Table 3.4-1 presents the Noise Ordinance standards identified in Section 10.26 of the City's *Municipal Code*. The Noise Ordinance is applicable to noise generated from sources such as parking lots, loading docks, and mechanical equipment. The Noise Ordinance requirements cannot be applied to mobile noise sources such as heavy trucks when traveling on public roadways. Federal and State laws preempt control of the mobile noise sources on public roads. However, the requirements can be applied to vehicles traveling on private property.

**TABLE 3.4-1**
**CITY OF NEWPORT EACH NOISE ORDINANCE STANDARDS**

| Zone | Noise Metric | Allowable Noise Level | |
|---|---|---|---|
| | | 7 AM to 10 PM (daytime) | 10 PM to 7 AM (nighttime) |
| **Exterior Noise Standards** | | | |
| I Residential: Single-family, two- or multiple-family | Leq (15 min) | 55 dBA | 50 dBA |
| | Lmax | 75 dBA | 70 dBA |
| II Commercial | Leq (15 min) | 65 dBA | 60 dBA |
| | Lmax | 85 dBA | 80 dBA |
| III Residential Portions of Mixed-Use Properties[a] | Leq (15 min) | 60 dBA | 50 dBA |
| | Lmax | 80 dBA | 70 dBA |
| IV Industrial and Manufacturing | Leq (15 min) | 70 dBA | 70 dBA |
| | Lmax | 90 dBA | 90 dBA |
| **Interior Noise Standards** | | | |
| I Residential | Leq (15 min) | 45 dBA | 40 dBA |
| | Lmax | 65 dBA | 60 dBA |
| III Residential Portions of Mixed-Use Properties[a] | Leq (15 min) | 45 dBA | 45 dBA |
| | Lmax | 65 dBA | 65 dBA |

[a] Residential uses within 100 feet of a commercial property where noise is from said commercial property.

The City of Newport Beach exterior and interior noise criteria is given in terms of 15 minute Leq and Lmax noise levels. The noise levels specified are those that are not to be exceeded at a property from noise generated at a neighboring property. Noise levels are to be measured with A-weighting and a slow time response. Greater noise levels are permitted during the day (7 AM to 10 PM) than during the nighttime period (10 PM to 7 AM).

Section 10.26.055, "Noise Level Measurement," defines the locations where measurements can be made to determine compliance with the noise standards; it effectively defines where the Noise Ordinance standards are applicable. For residential areas, the exterior standard is applicable to any part of a private yard, patio, deck, or balcony normally used for human activity. The standards are not applicable to non-human activity areas such as trash container storage areas, planter beds, above or contacting a property line fence, or other areas not normally used as part of the yard, patio, deck, or balcony. Interior noise standards are applicable anywhere inside the room at least four feet from the walls, or within the frame of an open window.

Section 10.26.045 sets different noise standards for heating, ventilation, and air conditioning (HVAC) equipment. HVAC equipment "in or adjacent to residential areas" cannot generate a noise level in excess of 50 dBA unless it includes a timing device that will deactivate the equipment between 10:00 PM and 7:00 AM in which the standard is 55 dBA.

Section 10.26.35, "Exemptions," presents noise sources that are exempt from the provisions of the *Noise Ordinance*. Item L directly relates to the Hoag operations. Item L reads, "Any noise sources specifically identified and mitigated under the provisions of a use permit, modification permit, development agreement or planned community district development plan adopted prior to the date of adoption of this chapter." The Development Agreement between the City and

Hoag, which was adopted prior to the Noise Ordinance, as it affects allowable noise generation, is discussed below.

Item G of Section 10.26.035 exempts noise sources associated with the maintenance of real property and instead requires that they be subject to Chapter 10.28 of the Municipal Code. Section 10.28.45 sets limits on the times of day that any "tool, equipment or machine" can be operated "in a manner which produces loud noise that disturbs, or could disturb, a person of normal sensitivity who works or resides in the vicinity." Specifically, the code section restricts these activities to between 7:00 AM and 6:30 PM Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday. These activities are prohibited on Sundays and federal holidays.

***Hoag Hospital Development Agreement***

Item 3.5 of the Development Agreement between the City of Newport Beach and Hoag Memorial Hospital Presbyterian (Approved February 14, 1994, Ordinance No. 94-8) reads as follows:

> *Compliance with General Regulations. Hoag is required to comply with the Existing General Regulations. As to those Existing General Regulations which require the payment of fees, costs, and expenses, Hoag shall pay the fee, cost, or expense required as of the data on which Hoag submits the application for Project Specific Approval. Hoag shall also comply with any Future General Regulations that do not impair Hoag's ability to develop the Property in accordance with the density, intensity, height and location of development specified in the Master Plan. Hoag shall also comply with all provisions of the Uniform Building Code, whether adopted before or after the Project Specific Approvals are submitted. Hoag shall also comply with the Coastal Act and the City's certified Local Coastal Program.*

Items 2.17, 2.18, and 2.19 define "Existing General Regulations," "Future General Regulations," and "General Regulations" as follows:

> *2.17 "Existing General Regulations" means those General Regulations approved by the City on or before the Approval Date (irrespective of their effective date) and not rescinded or superseded by City Action taken on or before the Approval Date*
>
> *2.18 "Future General Regulations" means those General Regulations (see Section 2.19 below) adopted by the City after the Approval date.*
>
> *2.19 "General Regulations" means those ordinances, rules, regulations, policies, and guidelines of the City, which are generally applicable to the use of land and/or construction within the City and include, the Fair Share Traffic Contribution Ordinance, Uniform Building Codes and water and sewer connection and fee ordinances.*

Item 3.5 of the Development Agreement exempts Hoag from the Noise Ordinance (Section 10.26 of the *Municipal Code*, a Future General Regulation) where the application of the Noise Ordinance would "impair Hoag's ability to develop the Property in accordance with the density, intensity, height and location of development specified in the Master Plan." In most cases, noise generated by activities at Hoag should be able to be mitigated to below the Noise Ordinance limits without impairing the development of the property, and the Noise Ordinance would apply to these cases. There could be some cases where enforcement of the Noise Ordinance would impair the development of the property and would not be applicable in these cases.

Section II "General Notes" item 7 of the *Hoag Memorial Hospital Presbyterian Planned Community Development Criteria and District Regulations* (Adopted by the City Council, City of Newport Beach, Ordinance No 92-3 May 26, 1992) reads:

> *New mechanical appurtenances on building rooftops and utility vaults, excluding communications devices, on the upper campus shall be screened from view in a manner compatible with building materials. Rooftop mechanical appurtenances or utility vaults shall be screened on the lower campus. Noise shall not exceed 55 dBA at all property lines. No new mechanical appurtenances may exceed the building height limitations as defined in these district regulations.*

This item preempts the HVAC regulations presented in Section 10.26.045 of the Noise Ordinance. Therefore, mechanical equipment at Hoag cannot exceed 55 dBA at the property line under the existing Development Agreement.

**Vibration**

Vibration is a unique form of noise that is carried through structures and the earth; most noise forms are carried through the air. Therefore, vibration is generally felt and heard. Some vibration effects are caused by noise; for example, the rattling of windows can be caused by truck pass-bys. This phenomenon is related to the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Vibration can be caused by construction equipment working at or below ground level. Certain uses, such as residences and specific hospital uses, are considered vibration-sensitive because vibrations received by these receptors can be annoying or disruptive to sensitive activities.

### 3.4.3 METHODOLOGY

The project study area is defined as the Hoag site and the immediately contiguous properties. Noise measurements were taken on Monday, November 21, 2005, between 4:00 PM and 6:00 PM at three locations to determine ambient noise conditions. The locations of the noise measurement sites are depicted in Exhibit 3.4-3. The purpose of the general ambient measurements is to document typical existing daytime noise levels in the Project study area and to determine if there are any additional unusual noise sources in the Project area that need to be addressed. The results of the noise measurements presented are not used in the determination of impacts. For traffic noise impacts, modeled traffic noise levels are used to determine impacts. For impacts from other noise sources, source-specific data is used.

For the noise measurement survey prepared for this SEIR to determine existing noise levels a Brüel & Kjær 2236 and 2238 automated digital noise data acquisition system were used. These instruments automatically calculate both the Equivalent Noise Level (LEQ) and Percent Noise Level (L%) for any specific time period. The noise monitors were equipped with a Brüel & Kjær Type 2260 Sound Level Meter (Serial #1772179) with a Brüel & Kjær Type 4189 1/2″ electret condenser microphone (Serial #2143233). The measurement system was calibrated before and after the measurements with a Brüel & Kjær Type 4231 sound level calibrator, with current calibration traceable to the National Institute of Standards and Technology. Calibration for the instruments is performed annually and is certified through the duration of the measurements. This measurement system satisfies the ANSI (American National Standards Institute) Standards 1.4 for Type 1 precision noise measurement instrumentation.

Projected highway noise levels were calculated using the Highway Noise Model published by the Federal Highway Administration (1978). The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." A computer code has been written which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these equivalent noise levels and adding them gives the CNEL for the traffic projections used. CNEL contours are found by iterating over many distances until the distances to the 60, 65, and 70 CNEL contours are found.

### 3.4.4 EXISTING CONDITIONS

Ambient noise measurement results are presented in Table 3.4-2 in terms of average noise levels (LEQ), maximum noise levels (Lmax), minimum noise levels (Lmin), and percentile noise levels (L[%]) during each measurement period. The L(%) value is the noise level that was exceeded for a percentage of the measurement period. For example, the L(50) percentile level represents that the noise levels were exceeded 50 percent of the time, and represents the median ambient noise level. The L(90) noise levels represent the background noise levels that are exceeded 90 percent of the time and is considered the background noise level.

**TABLE 3.4-2**
**AMBIENT NOISE MEASUREMENTS**

| Site | Start Time | Measured Noise Level (dBA) | | | | | |
|---|---|---|---|---|---|---|---|
| | | Leq | L(max) | L(10) | L(50) | L(90) | L(min) |
| 1 | 4:16 PM | 68.0 | 79.9 | 71.0 | 66.5 | 60.5 | 54.8 |
| 2 | 4:56 PM | 62.9 | 76.0 | 65.0 | 61.0 | 57.5 | 55.2 |
| 3 | 5:44 PM | 53.6 | 66.3 | 55.5 | 52.5 | 50.5 | 49.4 |
| Source: Mestre Greve Associates 2007. | | | | | | | |

Noise levels at the three measurement sites were dominated by traffic noise. Site 1 is located on the eastern side of Superior Avenue in the condominium development just north of Sunset View Park. Traffic on Superior Avenue and, to a lesser extent, West Coast Highway were the dominant sources of noise. A large truck passing by on Superior Avenue resulted in the maximum noise level measured. Activities of persons in Sunset View Park, generally walking and talking, also contributed to the noise environment along with insects. Site 2 is located on the eastern side of Sunset View Park, just west of Hoag Road. Distant traffic on Newport Boulevard and West Coast Highway was the dominant source of noise at the site. Activities of persons in the park, generally walking and talking, also contributed to the noise environment. A person talking relatively close to the sound level meter caused the maximum measured noise level. Site 3 is located to the east of Hoag across Newport Boulevard, along Old Newport Boulevard near the corner of Catalina Drive. Traffic on Newport Boulevard was the dominant source of noise with intermittent traffic on Old Newport Boulevard also generating considerable levels of noise. A bus passing on Old Newport Boulevard generated the maximum measured noise level.

#### Existing Roadway Noise Levels

The distances to the existing CNEL contours for the roadways affected by Hoag are identified in Table 3.4-3. Only roadways projected to experience a 0.5 dB or greater traffic noise CNEL change are identified on the table. The noise levels presented in the table were calculated using the existing traffic volumes presented in the Traffic Study (LLG 2007) and posted speed limits. Existing traffic noise levels along all roadways analyzed for the project are presented in Table A-5 of Appendix F of this SEIR. The contours presented in Table 3.4-3 represent the

distance from the centerline of the roadway to the contour value shown. The values do not take into account the effect of any noise barriers or topography that may affect traffic noise levels.

**TABLE 3.4-3**
**EXISTING ROADWAY TRAFFIC NOISE LEVELS**

| 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 | 60.8 | RW | 52 | 113 |
| East of Superior Avenue | 63.7 | 38 | 82 | 177 |
| **16th Street** | | | | |
| West of Superior Avenue | 55.6 | RW | RW | 51 |
| **Industrial Way** | | | | |
| East of Superior Avenue | 54.7 | RW | RW | 44 |
| **Hospital Road** | | | | |
| East of Superior Avenue | 57.2 | RW | 30 | 65 |
| West of Hoag Drive | 56.8 | RW | RW | 61 |
| East of Hoag Drive | 60.0 | RW | 46 | 100 |
| West of Newport Boulevard | 60.1 | RW | 47 | 102 |
| **West Coast Highway** | | | | |
| West of Orange Street | 68.5 | 80 | 172 | 370 |
| East of Orange Street | 68.6 | 80 | 173 | 372 |
| East of Hoag Drive | 63.9 | 39 | 84 | 181 |
| West of Newport Blvd. southbound Off-Ramp | 64.1 | 40 | 87 | 187 |
| West of Riverside Avenue | 66.7 | 60 | 129 | 278 |
| East of Riverside Avenue | 66.0 | 54 | 116 | 251 |
| **Via Lido** | | | | |
| East of Newport Boulevard | 57.9 | RW | 34 | 72 |
| **Orange Street** | | | | |
| South of West Coast Highway | 47.9 | RW | RW | RW |
| **Prospect Street** | | | | |
| North of West Coast Highway | 50.4 | RW | RW | RW |
| South of West Coast Highway | 44.9 | RW | RW | RW |
| **Prospect Street** | | | | |
| North of West Coast Highway | 50.4 | RW | RW | RW |
| South of West Coast Highway | 44.9 | RW | RW | RW |
| **Placentia Avenue** | | | | |
| North of Hospital Road | 61.3 | RW | 57 | 122 |
| **Superior Avenue** | | | | |
| North of 17th Street | 58.2 | RW | 35 | 75 |
| South of 17th Street | 63.9 | 39 | 84 | 182 |
| North of 16th Street/Industrial Way | 63.2 | 35 | 75 | 163 |
| South of 16th Street/Industrial Way | 63.2 | 35 | 76 | 163 |
| North of Placentia Avenue | 62.4 | 31 | 67 | 145 |
| North of West Coast Highway | 64.5 | 43 | 92 | 198 |
| **Balboa Boulevard** | | | | |
| South of West Coast Highway | 60.1 | RW | 47 | 101 |

**TABLE 3.4-3 (Continued)**
**EXISTING ROADWAY TRAFFIC NOISE LEVELS**

| Roadway Segment | CNEL at 100 ft.[a] | Distance to CNEL Contour[a] (feet) | | |
|---|---|---|---|---|
| | | 70 CNEL | 65 CNEL | 60 CNEL |
| **Hoag Drive** | | | | |
| South of Hospital Road | 53.0 | RW | RW | 34 |
| North of West Coast Highway | 51.8 | RW | RW | RW |
| **Riverside Avenue** | | | | |
| North of West Coast Highway | 58.3 | RW | 36 | 77 |
| **Tustin Avenue** | | | | |
| North of West Coast Highway | 49.3 | RW | RW | RW |
| **Bay Shore Drive** | | | | |
| South of West Coast Highway | 52.3 | RW | RW | 31 |
| **Bayside Drive** | | | | |
| North of East Coast Highway | 48.6 | RW | RW | RW |

[a] From roadway centerline
RW: Noise contour fall within roadway right-of-way

Source: Mestre Greve Associates 2007.

Table 3.4-3 shows that noise levels along 16th Street, Industrial Way, Orange Street, Prospect Street, Hoag Drive, Tustin Avenue, Bayshore Drive, and Bayside Drive are minor; the 65 CNEL contour does not extend beyond the right-of-way along these roads. Traffic noise levels along 17th Street, Hospital Road, Via Lido, Placentia Avenue, Balboa Boulevard, and Riverside Avenue are moderate; noise levels directly adjacent to these roadways exceed 65 CNEL but do not substantially exceed 70 CNEL. Noise Levels along West Coast Highway, Superior Avenue, and Newport Boulevard are substantial, exceeding 70 CNEL along the edge of the roadway.

## On-Site Use-Specific Noise Levels

Noise measurements were performed to assess the noise levels associated with Hoag loading dock activities, cleaning of a grease pit, mechanical equipment, and the cogeneration facility.

Condominium units are located along the eastern boundary of the Upper Campus close to the loading dock area. Noise measurements were performed on Saturday, August 13, 2005, between 8:00 AM and 12:00 PM to measure the levels generated by the grease pit cleaning and Wednesday, August 17, 2005, between 8:30 AM and 1:30 PM to measure the noise levels generated by general loading dock activities. Exhibit 3.4-4 shows the location of the loading docks, grease pit cleaning area, and noise measurement sites. Noise levels were measured at Sites 1 and 2 on August 13, 2005, for the grease pit cleaning and at Sites 1 and 3 on August 17, 2005, for the loading dock activities. These sites were selected based on proximity between Hoag and off-site residential uses.

Measurement Site 1 is located on the third floor condominium balcony at 260 Cagney Lane, Unit 304 (top floor of the condominium building). Site 2 is located at the northeastern corner of the 260 Cagney Lane building and is representative of noise levels experienced at the first floor balconies of the building. Site 3 is located at the northeastern corner of the 280 Cagney Lane building. Two monitors were located at Site 3, one at 5 feet above ground level to represent noise levels experienced at first floor residential units and one at 15 feet above ground level to represent noise levels at second floor units.

With respect to the cogeneration facility, the site was visited on October 3, 2006, to measure the noise levels from the chiller vents on top of the cogeneration facility building. The generator engines were not yet in operation at the time of the measurements. Noise measurement results were repeated on November 20, 2006, and July 2, 2007. On July 2, 2007, the cogeneration facility was in full operation including the generator engines that are enclosed in the building.

Measurements were performed at the edge of Sunset View Park just north of the cogeneration facility, and just outside the balconies at the southern edge of the condominium building nearest to the cogeneration facility building, as depicted on Exhibit 3.4-5. Near the balconies, measurements were performed at 5 feet above the ground and at 20 feet aboveground, the latter to represent noise levels at third floor units. For the July 2, 2007 measurements, two additional sites were measured. These sites were measured at the request of the residents with concurrence from City staff. The measurements were made along the western edge of the property very near the Hoag property line. (The measurements may actually be slightly inside the property line.) All measurements at the cogeneration facility were taken after 11:00 PM; noise measurements could not be made earlier because of traffic noise from Coast Highway.

### *Grease Pit Cleaning*

With respect to the pumping of materials from the underground tank (grease pit), the grease pit is cleaned once a month on the second Saturday between 8:00 AM and 11:00 AM. The monthly cleaning of a grease pit separates grease from other materials to prevent it from entering the sewer system.

During noise monitoring on Saturday, August 13, 2005, the grease pit cleaning crew arrived at the site at approximately 9:20 AM. The crew consisted of a van with a small trailer of equipment and a large diesel semi-trailer tanker truck. The tanker truck engine was left idling as the crew set up. The tanker truck engine generated a Leq noise level of approximately 65 to 66 dBA at Site 1 and 59 dBA at Site 2. The tanker truck engine idled for approximately 25 minutes as preparations were made for cleaning the grease pits. During this time, a manhole cover was removed and a small tent placed over it. The van was parked so that the trailer could back up to the tent. A fan with a water misting system was mounted on the back of the trailer and was pointed towards the tent; the tent and the fan are used for odor control. There were no unusual odors observed during the cleaning.

At approximately 9:45 AM, the fan was turned on and ran for about 15 minutes as preparations continued. During this period, the combined idling diesel of the tanker truck engine and fan generated a Leq noise level of approximately 66 dBA at Site 1 and 61 dBA at Site 2. At approximately 10:02 AM, the cleaning of the grease pit began. The grease trap is cleaned by placing a hose down a manhole, and a pump (powered by the tanker truck's diesel engine) pumps material from the grease pit into the tanker truck. The diesel engine of the tanker truck is run above idling levels to power the pump. This generated Leq noise levels between 76 and 78 dBA at Site 1 and between 70 and 73 dBA at Site 2. The pumping continued for approximately 70 minutes with short breaks to move the hose between the 3 manholes, which required relocation of the van and the tanker truck. Typically, relocation took two to four minutes. For a continuous 70 minute period (with 3 breaks), the noise level at Site 1 was approximately 77 dBA (17 dB above the 60 dBA Noise Ordinance limit) and the noise level at Site 2 was approximately 72 dBA (12 dBA above the Noise Ordinance limit). A 10 dB difference is perceived as a doubling or halving of the noise level. Therefore, the noise level at Site 1 during the pumping operations is almost four times greater, and the noise level at Site 2 was more than two times greater than permitted by the Noise Ordinance limit. During grease pit cleaning, the 80 dBA Lmax limit was exceeded 3 times at both monitoring sites. In all cases,

these were instantaneous exceedances due to an impact noise such as dropping a tool or other large object or the release of air pressure in the diesel truck brake system.

The City considers grease trap cleaning a property maintenance activity. Property maintenance occurring between the hours of 7:00 AM and 6:30 PM Monday through Friday, or between the hours of 8:00 AM and 6:00 PM on Saturday is exempted from the Noise Ordinance criteria. Therefore, the grease trap cleaning is exempt from the Noise Ordinance limits as long as it occurs during these hours. Property maintenance activities are prohibited on Sundays and federal holidays.

### *Loading Dock Activities*

The primary source of noise at the loading dock is the arrival and departure of trucks. Additional noise sources include a box crusher, trash compactor, and sterilizer. Hoag limits the hours of access to the loading dock and West Hoag Drive (the road that runs along the western side of the Upper Campus). These gates are closed at 8:00 PM and open at 7:00 AM. This restriction limits the loading dock noise to the hours when persons are generally considered less sensitive to noise. During the measurements, noise generated by equipment was not audible. The box crusher was observed to be in operation without generating a distinctly audible noise. Residents have noted that the sterilizer does not typically generate noise. However, under certain operating conditions a pressure relief valve will vent pressurized air to the atmosphere and generate considerable noise levels. However, this activity was not observed. According to Hoag, the sterilizer is run once every two hours, the trash compactor is operated twice an hour, and the box crusher is operated twice an hour.

On average, three trucks arrived and then departed the loading dock in an hour with six occurring during the busiest hour (8:30 AM to 9:30 AM). In addition to trucks arriving and departing the loading dock, general activity in the loading dock area also generates noise. This includes handling of materials being delivered, backup beepers, and speech communication. General traffic (i.e., non-delivery traffic) traveling on West Hoag Drive also contributes substantially to the noise environment. The most significant noise event is trash removal. A truck arrives at the loading dock, backs up to the trash compactor, and then pulls the compactor unit onto the back of the truck (similar to the removal of a large trash dumpster), and drives away. The empty trash compactor was returned to the site some time later. Hoag has indicated that this occurs every Monday, Wednesday, and Friday.

At Site 1, the 60 dBA Leq was exceeded every 15-minute period from 7:00 AM to 4:00 PM. Because the gates to West Hoag Drive providing access to the loading docks do not open before 7:00 AM, noise monitoring reflected little or no activity before this time period. Upon opening of the gates, the noise levels immediately increased with the increased activity. The loudest 15-minute Leq was 64 dBA. Much of the time, the 15-minute Leqs were less than 62 dBA. The 80 dBA Lmax criterion was exceeded 5 times between 7:00 AM and 4:00 PM. The exceedances were very short term (in the one to two second range). Hoag's mechanical equipment noise experienced at Site 1 considerably contributes to the Leq standard exceedances. Because the mechanical equipment has a relatively high noise level, there does not need to be much additional noise to exceed the 60 dBA Leq.

At Site 3, the 60 dBA Leq was exceeded for six 15-minute periods at the second floor monitor and for three 15-minute periods at the first floor monitor during five hours of monitoring. The highest 15-minute Leq was 68 dBA at the second floor monitor and 64 dBA at the first floor monitor. These levels occurred during the period where the trash compactor was removed from the loading dock area. The 80 dBA Lmax threshold was not exceeded at the first floor monitor at

Site 3 and was exceeded four times at the second floor monitor. These exceedances were instantaneous exceedances during an air pressure release on a truck air break system or during an engine start. The highest Lmax at the second floor monitor was 86 dBA.

Noise measurements were performed for the 1991 Hospital Expansion EIR near measurement Site 3. These measurements showed similar daytime noise levels to those measured for the current EIR noise analysis. This would indicate that loading dock activities and noise levels in the vicinity of the loading dock have not substantially increased since 1991.

### *Mechanical Equipment*

Noise monitoring was conducted to record overnight noise levels. At Site 1, the dominant noise source on the balcony observed during the set up/tear down of the monitor was mechanical equipment at Hoag. The noise level from mechanical equipment was measured to be approximately 58 dBA with small fluctuations. Nighttime noise levels were never below 57 dBA with the 15-minute Leq noise levels of 58 dBA; some noise events resulted in slightly higher Leq levels. At Site 1, operation of mechanical equipment at Hoag results in a noise level of 58 dBA. This is 3 dB higher than the 55 dBA District Regulations applicable to the project and 8 dB higher than permitted by the current Noise Ordinance.

The noise level at Site 1 was constant until 7:00 AM when the gates to West Hoag Drive were opened. During the Saturday measurements, the 15-minute Leq noise levels generally remained below 60 dBA when the grease trap cleaning was not being performed. However, the noise levels were just below the 60 dBA Leq level. On the Wednesday measurements, the 15-minute Leq noise levels immediately jumped above 60 dBA at 7:00 AM and remained above 60 dBA until the monitoring was stopped at 4:00 PM. The 15-minute Leq levels were generally between 60 and 62 dBA with the highest being 65 dBA. It appears that the mechanical equipment causing this noise is the same exhaust fan examined in the Final EIR No. 142.

### *Cogeneration Plant*

The Hoag cogeneration facility is located near the northeastern corner of West Coast Highway and Superior Avenue. This facility generates electricity for Hoag by extracting natural gas from the ground and burning it off. The waste heat from the generators is then used to generate hot and chilled water for Hoag's heating and cooling. As previously noted, noise measurements were taken on October 3, 2006, November 20, 2006, and July 2, 2007, and are provided in Table 3.4-4. The cogeneration facility was in full operation on July 2, including the generator engines that are enclosed in the building.

The noise levels from the cogeneration facility were steady. Traffic noise was still a significant noise source (after 11 PM) and the noise measurements of the cogeneration facility were made during lulls in the traffic. The noise levels listed below represent the steady noise levels of the cooling fans and exhaust vents of the cogeneration facility.

**TABLE 3.4-4**
**COGENERATION FACILITY NOISE MEASUREMENT RESULTS (DBA)**

| Location | October 3, 2006 | November 20, 2006 | July 2, 2007 |
|---|---|---|---|
| 1. Edge of Sunset View Park | 49.8 | 52.2 | 56.3 |
| 2. Nearest balcony (first floor level) | 43.0 | 47.8 | 46.5 |
| 3. Nearest balcony (elevated 20 feet) | 46.1 | 49.8 | 49.2 |
| 4. NW Corner of Cogeneration Facility | – | – | 61.9 |
| 5. West of Cogeneration Facility | – | – | 69.8 |
| Source: Mestre Greve Associates 2007. | | | |

The Noise Ordinance regulations apply to the cogeneration plant because this facility is not being considered a mechanical equipment operation that would be regulated by the current Development Agreement. The particular paragraph in the Development Agreement refers to "new mechanical appurtenances on building rooftops and utility vaults" and the cogeneration facility is not consistent with this description. Additionally, the residential areas (Sites 2 and 3) are within 100 feet of the Hoag property line and therefore, would be protected by the Zone 3 – Mixed Use Residential criteria. The noise criterion for Zone 3 is 50 dBA (Leq) during the night and 60 dBA during the day. The noise levels for the cogeneration facility are below the nighttime criteria of 50 dBA contained in the Noise Ordinance. With the current equipment in operation, the noise levels generated by the cogeneration facility are in compliance with the Noise Ordinance at locations 2 and 3.

Sites 1, 4, and 5 are probably best characterized as undeveloped park land (Sunset View Park). As such, these sites would not be subject to any Noise Ordinance limits. The cogeneration noise levels at Sites 4 and 5 were measured at 61.9 and 69.8 dBA, respectively. If the Development Agreement were the applicable noise controlling standard at these sites, the noise level would exceed the 55 dBA requirement by almost 15 dBA. However, for reasons stated in the previous paragraph, the Development Agreement is not the controlling document for noise from the cogeneration facility. It should also be noted that traffic noise and other noise sources were higher than the cogeneration facility at these sites, although at Site 5 the cogeneration plant was the dominant noise source most of the time.

According to Hoag, within the next year, an additional cooling tower with its associated pumps will be added in the exterior cooling tower yard located along West Coast Highway. The cogeneration facility also has space for the following future equipment: three generators, one absorption chiller, and one electric chiller; all (if added) would be placed inside the building. Because the cogeneration facility is in compliance with the Noise Ordinance, the addition of future equipment is a future noise compliance issue. The City could require additional noise measurements when the facility is in full operation to ensure that it remains in compliance. The cogeneration facility is completely permitted at this time. The City would have the right to require noise mitigation of the facility only if the cogeneration facility is shown to not be in compliance with the Noise Ordinance.

## Vibration Environment

Aside from seismic events, the primary source of existing groundborne vibration in the vicinity of Hoag is from roadway traffic. Vibration generated by individual heavy truck pass-bys tend to have minor effects on nearby land uses, except for those uses that house extremely vibration-sensitive equipment. Roadway traffic occurs along the major roadways and highway near the

site, including West Coast Highway and Newport Boulevard. Vehicular movement on the site, including within the parking structures, can be a source of vibration.

**General Plan Policies**

The City of Newport Beach General Plan Noise Element identifies noise sensitive land uses and noise sources, and defines areas of noise impact. The goals and policies of the Noise Element provide a framework to ensure that Newport Beach residents are protected from excessive noise intrusion. Applicable objectives and policies of the Noise Element to the proposed project with a consistency analysis are provided in Table 3.4-9.

### 3.4.5 THRESHOLDS OF SIGNIFICANCE

The criteria used to determine the significance of potential project-related noise impacts are based on the City's Initial Study checklist. The project would result in a significant impact related to noise if it would:

Threshold 3.4.1 Expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (Applicable standards are discussed below).

Threshold 3.4.2 Expose persons to or generation of excessive groundborne vibration or groundborne noise levels.

Threshold 3.4.3 Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Threshold 3.4.4 Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Threshold 3.4.5 Conflict with any applicable plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

**Long-term Off-Site Impacts from Traffic Noise**

Long-term off-site impacts from project-generated traffic noise are measured against two criteria. Both criteria must be met for a significant impact to be identified.

***Project-Specific Impact***

- The project traffic results in a substantial noise level increase on a roadway segment adjacent to a noise sensitive land use (e.g., residential use) (a substantial noise increase is defined as an increase of 1 dB or more); and

- The resulting "future with Master Plan Update Project" noise level exceeds the criteria for the noise-sensitive land use. The following exterior noise standards apply to the

proposed project: 65 CNEL residential exterior noise levels, 45 CNEL for interior, and 65 CNEL exterior noise levels.

***Cumulative Impact***

Long-term cumulative off-site impacts from traffic noise are measured against two criteria. Both of the following criteria must be met for a significant cumulative impact to be identified.

- The "cumulative with Master Plan Update Project" traffic results in a substantial noise level increase on a roadway segment adjacent to a noise sensitive land use (e.g., residential use) (a substantial noise increase is defined as an increase of 3 dB or more); and

- The resulting "cumulative with Master Plan Update Project" noise level exceeds the criteria for the noise sensitive land use, as identified above, for the City of Newport Beach. The following noise standards apply to the proposed project: 45 CNEL for interior and 65 CNEL exterior noise levels.

**On-Site Impacts**

On-site noise sources are measured against different standards based on the noise source. The following existing and proposed on-site activities standards apply to Hoag:

| Noise Source | Current Limit (dBA) | Proposed Limit (dBA) |
|---|---|---|
| Mechanical Equipment at West Tower & Ancillary Building | 55 Leq[a] | 70 Leq (Day)/58 Leq (Night) |
| Loading Dock (delivery vehicles and the loading/unloading ops.) | 60 Leq<br>80 Lmax[b] | Exempt |
| Loading Dock (non-delivery operations) | 60 Leq<br>80 Lmax[b] | 70 Leq (Day)/58 Leq (Night) |
| Grease Trap | Exempt | Exempt |
| Cogeneration Plant (nearest residence) | 60 Leq (Day)/50 Leq[b] (Night) | 60 Leq (Day)/50 Leq (Night) |

[a] Existing Development Agreement
[b] Based on Mixed Use Residential standard contained in Noise Ordinance

## 3.4.6 ENVIRONMENTAL IMPACTS

As addressed in Section 2.0, Project Description, 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.

1. The applicable noise standard at the Hoag property line adjacent to the loading docks shall be as follows (see Exhibit 2-5 of Section 2.0, Project Description):

| | 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.

In addition, the grease pit cleaning, which is exempt from the City's Noise Ordinance because it is a maintenance activity, would occur on a Saturday between the hours of 11:00 AM and 3:00 PM.

**Impact Analysis**

***Threshold 3.4.1:*** ***Would the project expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

***Threshold 3.4.4:*** ***Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

***Construction Activities***

Potential noise impacts are commonly divided into two groups: temporary and long term. Temporary impacts are usually associated with noise generated by construction activities. Long-term impacts are further divided into impacts on surrounding land uses generated by a project and those impacts that occur at the site. Potential traffic noise impacts on a project are also assessed.

Generally, construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment (including trucks, graders, bulldozers, concrete mixers, and portable generators) and construction activities can reach high levels. The greatest construction noise levels are typically generated by heavy construction equipment. Worst-case examples of construction equipment noise at 50 feet are presented in Exhibit 3.4-6. Peak noise levels for most of the equipment that would be used during the construction is 70 to 95 dBA at a distance of 50 feet. At 200 feet, the peak construction noise levels range from 58 to 83 dBA. At 400 feet, peak noise levels range from 52 to 77 dBA. Typically, noise levels near the site would be less. Noise measurements made by Mestre Greve Associates for other projects show that the noise levels generated by commonly used grading equipment (i.e., loaders, graders, and trucks) generate noise levels that typically do not exceed the middle of the range shown in the exhibit.

The proposed Master Plan Update Project does not propose any specific construction projects. Therefore, a site-specific development project noise analysis is not included in this SEIR. Construction occurring within 500 feet of residential areas has the potential to exceed the City's Noise Ordinance noise level limits. However, the Noise Ordinance exempts construction activities from the noise level limits during specific hours of the day. Noise-generating construction activities are permitted during the hours between 7:00 AM and 6:30 PM Monday through Friday, between 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. Compliance with the City's Noise Ordinance is considered to result in no significant short-term noise impacts.

***Impact 3.4-1:*** ***No Impact.*** Construction noise represents a short-term effect on ambient noise levels. Construction activities conducted consistent with the Newport Beach Noise Ordinance are not considered to result in a significant impact.

***Threshold 3.4-2: Would the project expose persons to or generate excessive groundborne vibration or groundborne noise levels?***

***Vibration***

The are no federal, State, or local standards for vibration impacts on persons. According to the FHWA, typical construction vibrations pose no threat to buildings and structures; annoyance to people is not considered any worse than other discomforts experienced from noise generated by construction. Pile driving can generate substantial vibration levels. A substantial amount of research has been completed to compare vibrations from single events such as dynamite blasts with architectural and structural damage. The U.S. Bureau of Mines has set a safe limit of 0.5 inch per second peak particle velocity to avoid structure damage in residential structures (U.S. Bureau of Mines 1980). Below this level, there is virtually no risk of building damage.

Operation of heavy construction equipment can generate noticeable vibration in the immediate vicinity of the equipment. Vibration levels from most heavy construction equipment are typically not perceived as severe or annoying and drop off rapidly to an undetectable level over a short distance (approximately 10 to 20 feet). Pile driving may be used during construction. Pile driving can generate considerable vibration levels that could be perceptible 300 feet or more away from the pile driving depending on the type of pile driver used and local soil conditions. Pile driving near existing buildings can result in damage to the buildings.

While groundborne vibration effects are typically attenuated over short distances, the future demolition of on-site buildings associated with buildout of Hoag 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. Therefore, potential vibration impacts would be considered a significant impact. The proposed Master Plan Update Project does not propose any specific construction or demolition projects; therefore, a site-specific vibration noise analysis is not included in this SEIR. Because the Project involves the transfer of square footage allocation between the Upper and Lower Campuses at Hoag, vibration noise is not expected to be substantially greater than that which would be expected with the buildout of the existing Master Plan, with the exception that implementation of the Project could lead to more construction on the Upper Campus than would have otherwise occurred with buildout of the already approved Master Plan.

***Impact 3.4-2:*** ***Significant Impact.*** Project demolition and construction activities associated with the proposed Master Plan Update Project would generate vibration although not at levels substantially greater than that which would occur with buildout under the existing Master Plan. This impact is considered significant.

***Threshold 3.4.1: Would the project expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

***Threshold 3.4.3: Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

## Project Traffic Noise

Impacts from increases in traffic noise levels due to the proposed Master Plan Update Project were estimated using the traffic projections presented in the in the Linscott, Law & Greenspan traffic study (see Appendix C). By comparing the traffic volumes for different scenarios, the changes in noise levels along roadways in the vicinity of Hoag were estimated. To estimate noise level changes due to the proposed Master Plan Update Project, the "with Project" traffic volumes are compared to the "without Project" traffic volumes. This analysis is performed below for two scenarios: Year 2015 and Year 2025.

Traffic CNEL changes with the proposed Master Plan Update Project are identified in Table 3.4-5. 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: 2015 and 2025. Only roadway segments projected to experience noise level increases of 0.5 dB or greater associated with the proposed Master Plan Update Project are presented in the table. Increases due to the project for all roadway segments analyzed the traffic study are presented in Table A-6 of Appendix F of this SEIR. Traffic noise level increases due to the Project of 1 dB or more, and over existing conditions of 3 dB or more, are shown in bold italics.

**TABLE 3.4-5**
**PROPOSED MASTER PLAN UPDATE PROJECT TRAFFIC NOISE LEVEL CHANGES**

| Roadway Segment | Change in 2015 | | Change in 2025 | |
|---|---|---|---|---|
| | Over Existing | Due to Project | Over Existing | Due to Project |
| **17th Street** | | | | |
| West of Superior Avenue | 0.7 | 0.7 | 1.1 | 0.0 |
| East of Superior Avenue | 0.7 | 0.6 | 0.6 | 0.0 |
| **16th Street** | | | | |
| West of Superior Avenue | 0.7 | 0.6 | 0.2 | 0.0 |
| **Industrial Way** | | | | |
| East of Superior Avenue | 0.6 | 0.6 | 0.7 | 0.0 |
| **Hospital Road** | | | | |
| East of Superior Avenue | 0.1 | 0.8 | 1.7 | 0.0 |
| West of Hoag Drive | -0.3 | 0.6 | 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 | 1.6 | 0.8 | 2.0 | -0.5 |
| West of Newport Boulevard southbound Off-Ramp | 1.6 | ***1.0*** | 2.1 | -0.3 |
| West of Riverside Avenue | -0.2 | -0.7 | 0.4 | -0.1 |
| East of Riverside Avenue | 0.0 | -0.5 | 0.6 | -0.1 |
| **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 |

**TABLE 3.4-5 (Continued)**
**PROPOSED MASTER PLAN UPDATE PROJECT**
**TRAFFIC NOISE LEVEL CHANGES**

| Roadway Segment | Change in 2015 | | Change in 2025 | |
|---|---|---|---|---|
| | Over Existing | Due to Project | Over Existing | Due to Project |
| **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 | 0.8 | 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 | -0.6 | -1.1 | -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 | ***4.2*** | ***3.8*** | ***5.8*** | 0.5 |
| North of West Coast Highway | 0.9 | -2.2 | ***3.0*** | -1.5 |
| **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.

The distances to the future 60, 65 and 70 CNEL contours with the Project are presented in Table 3.4-6. 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 (see Table 3.4-5) 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 A-5 of Appendix F presents traffic noise levels with the project for all roadways analyzed.

Table 3.4-5 identifies that noise levels are expected to increase by 1 dB or more along 5 roadway segments: West Coast Highway west of the Newport Boulevard southbound off-ramp; 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.

**TABLE 3.4-6**
**FUTURE NOISE LEVELS WITH PROPOSED MASTER PLAN UPDATE PROJECT**

| 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 | 135 |
| East of Superior Avenue | 64.4 | 42 | 91 | 196 |
| **16th Street** | | | | |
| West of Superior Avenue | 56.3 | RW | RW | 57 |
| **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 | 65.9 | 53 | 114 | 247 |
| West of Newport Blvd. southbound off-ramp | 66.2 | 55 | 119 | 257 |
| West of Riverside Avenue | 67.1 | 64 | 137 | 295 |
| East of Riverside Avenue | 66.6 | 59 | 128 | 275 |
| **Via Lido** | | | | |
| East of Newport Boulevard | 59.3 | RW | 41 | 89 |
| **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 | 101 |
| South of 17th Street | 64.6 | 44 | 94 | 202 |
| North of 16th Street/Industrial Way | 64.1 | 40 | 86 | 186 |
| South of 16th Street/Industrial Way | 64.0 | 40 | 86 | 185 |
| North of Placentia Avenue | 64.0 | 40 | 86 | 185 |
| North of West Coast Highway | 63.8 | 39 | 83 | 179 |

**TABLE 3.4-6 (Continued)**
**FUTURE NOISE LEVELS WITH PROPOSED MASTER PLAN UPDATE PROJECT**

| Roadway Segment | CNEL at 100 ft.[a] | Distance To CNEL Contour[a] (feet) | | |
|---|---|---|---|---|
| | | 70 CNEL | 65 CNEL | 60 CNEL |
| **Balboa Boulevard** | | | | |
| South of West Coast Highway | 60.0 | RW | 47 | 101 |
| **Hoag Drive** | | | | |
| South of Hospital Road | 58.7 | RW | 38 | 82 |
| North of West Coast Highway | 54.9 | RW | RW | 46 |
| **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.

***West Coast Highway west of the Newport Boulevard southbound off-ramp*.** Hoag is located north of this road segment. The future 65 CNEL noise contour along this road segment is projected to extend 119 feet 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. Therefore, 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, the Project's contribution to changes in traffic noise levels along this road segment is less than significant.

***Via Lido east of Newport Boulevard*.** The future 65 CNEL noise contour along this road segment is projected to extend 41 feet from the centerline. There are only commercial uses along this segment of Via Lido. Based on the distance of commercial buildings from the centerline, all buildings along this segment would be expected to provide adequate outdoor-to-indoor noise reduction so that interior noise levels due to traffic on this road segment would not exceed the applicable standards. Based on the thresholds of significance set forth in this SEIR, the Project's contribution to changes in traffic noise levels along this road segment is less than significant.

***Hoag Drive south of Hospital Road.*** This road segment is located within the property boundaries of Hoag. The future 65 CNEL noise contour along this road segment is projected to extend 38 feet from the centerline. There are no noise-sensitive outdoor areas located within this distance of the centerline. Based on their distance from the centerline, all buildings along

this segment are expected to provide adequate outdoor-to-indoor noise reduction so that interior noise levels due to traffic on this road segment would not exceed the applicable standards. Based on the thresholds of significance set forth in this SEIR, the Project's contribution to changes in traffic noise levels along this road segment is less than significant.

***Tustin Avenue north of West Coast Highway.*** The future 65 CNEL noise contour along this segment of Tustin Avenue is not projected to extend beyond the right-of-way. There are only commercial uses along Tustin Avenue just north of West Cost Highway with homes located along Tustin Avenue approximately 350 feet north of West Coast Highway. These residences front onto Tustin Avenue. Because the 65 CNEL contour is not projected to extend beyond the right-of-way, no exceedances of the applicable noise standards is anticipated. Based on the thresholds of significance set forth in this SEIR, the Project's contribution to changes in traffic noise levels along this road segment is less than significant.

***Bayside Drive north of West Coast Highway.*** The future 65 CNEL noise contour along Bayside Drive is not projected to extend beyond the right-of-way. There are mobile home residences located along both sides of this segment of Bayside Drive. These residences are set back approximately 40 feet from the roadway centerline. Because the 65 CNEL contour is not projected to extend beyond the right-of-way, no exceedances of the applicable noise standards is expected. Based on the thresholds of significance set forth in this SEIR, the Project's contribution to changes in traffic noise levels along this road segment is less than significant.

### *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 proposed Master Plan Update Project in addition to other projects and general growth anticipated for the area. Final EIR No. 142 identified that buildout of Hoag would not result in any significant traffic noise impacts but would contribute to existing noise level exceedances along five road segments; this incremental addition to cumulative traffic noise impacts was considered a significant and unavoidable cumulative noise impact (page 5-8). The five road segments were: Coast Highway from Superior Avenue to east of Bayside Drive; Balboa Boulevard southeast of Newport Boulevard; Superior Avenue between 15th Street and Placentia; Newport Boulevard between Balboa Boulevard and north of Hospital Road; and Dover Drive north of Coast Highway. The proposed Master Plan Update Project will not increase noise levels along these roadways by more than 0.1 dB and in many cases results in a slight reduction in projected noise levels for the roadways analyzed.

As previously identified on Table 3.4-5, 4 roadway segments are projected to have traffic noise level increases of 3 dB or more when compared to existing conditions. These segments are: Hoag Drive south of Hospital Road; Hoag Drive north of West Coast Highway; Tustin Avenue north of West Coast Highway; and Bayside Drive north of East Coast Highway. The proposed Master Plan Update Project is expected to result in a 1 dB or greater increase along all of these segments except Hoag Drive north of West Coast Highway (no contribution). Because the noise standards would not be exceeded, the Project's contribution would not result in a significant cumulative impact along these road segments.

***Impact 3.4-3:*** ***Less Than Significant Impact.*** The proposed Master Plan Update Project would not result in a project-specific or contribute to a cumulative traffic noise increase along a roadway segment that adjacent to a noise sensitive land use.

***Threshold 3.4.1:*** ***Would the project expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

***Threshold 3.4.3:*** ***Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

**On-site Activities and Land Uses**

Noise from activities on one property impacting another typically occurs only where non-residential land uses (e.g., commercial, manufacturing) abuts sensitive land uses (e.g., residential uses). Typical sources of noise from uses adjacent to residential uses that have the potential to impact residential uses include mechanical equipment and delivery trucks/loading docks.

The proposed Master Plan Update Project would allow for the reallocation of up to 225,000 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, four existing on-site noise sources are assessed: 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 grease pit cleaning generates very high levels of noise during the time the activity occurs. Noise levels at the nearest residences were approximately 77 dBA for over 1 hour, which is 17 dB higher (perceptually almost 4 times as loud) as the City's 60 dBA Leq Noise Ordinance limit for residential uses located within 100 feet of a commercial use. Interior noise levels would be approximately 20 dB lower than outdoor levels, or approximately 57 dBA, which is 12 dB greater (perceptually more than twice as loud) as the interior Noise Ordinance standard.

The proposed Master Plan Update Project would allow for the reallocation of up to 225,000 sf of allowable development to the Upper Campus. This action could result in an increase in the use of cafeteria facilities because of increased inpatient uses on the Upper Campus. Increased cafeteria use would result in a corresponding increase in grease trapped in the grease pit. This would result in more frequent cleaning of the grease pit and/or a longer duration of time to clean the grease pit.

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. Because this property maintenance activity is exempt from the City's Noise Ordinance, no significant noise impact would occur provided adherence to the Noise Ordinance's hours restrictions are maintained.

***Mechanical Equipment***

Buildout of the Hoag Master Plan under either the existing Master Plan assumptions or the proposed Master Plan Update assumptions may require additional HVAC equipment which

could include roof-mounted equipment. At the time Final EIR No. 142 was certified, the City had not adopted a Noise Ordinance with specific noise level limits. Therefore, the City used the County of Orange Noise Ordinance as guidance; 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.

The noise level at the condominium was measured at 58 dBA; this exceeds the Development Agreement limits by 3 dBA. The sources of this noise exceedance are both the rooftop equipment mounted on the Ancillary Building and the HVAC equipment located on the third floor of the West Tower. This condition should be corrected prior to issuance of any additional building permits for projects on the Upper Campus. New mechanical equipment would be required to comply with proposed modifications to the Development Agreement which would effectuate a change from the current 55 dBA level to 70 dBA (daytime) and 58 dBA (nighttime) when measured at the property line adjacent to the loading dock area.

Hoag has initiated plans to revamp the HVAC system for the Ancillary Building. The following is a discussion of the proposed changes and possible measures to reduce the noise to acceptable levels as summarized from *Strategies for Mitigation of Noise Generating Mechanical Ventilation Equipment* (Fundament and Associates 2007).

***Kitchen Exhaust Fans*.** The existing kitchen exhaust fans come through a “doghouse” in the center of the roof of the Ancillary Building. These fans would be replaced with new ducting and new fans. The new fans would operate at a lower speed and be selected for their low noise generation. Because the new fans have not been selected, the resulting noise level changes at nearby residents or at the property line cannot be calculated. However, the new fans would operate at a much slower speed and have an aerodynamic fan blade. It is very possible that the new fans would result in noise levels that comply with the Noise Ordinance. However, the kitchen exhaust fans may be difficult to mitigate if additional mitigation is necessary beyond these identified changes. Sound traps are commonly used to reduce the noise coming through the exhaust outlet. However, due to the grease loading of kitchen fans, sound traps are not viable. Other options could include reorientation of all of the kitchen exhausts away from the condominiums and augmenting the construction of the doghouse on the sides facing the residences. The doghouse is expected to be replaced with a 10-foot-high sound wall.

In summary, the new kitchen exhaust fans are anticipated to result in a significant improvement in noise levels. To ensure that a significant noise reduction is achieved, a noise study would be required to demonstrate that the new fans, in combination with the other mechanical equipment, meets the proposed revised noise limits of 70 dBA and 58 dBA (daytime and nighttime, respectively) at the property line. Mitigation options appear to be available, if needed, that would ensure that the new fans could comply with these requirements.

***Roof Top Exhaust Fans*.** In addition to the new kitchen exhaust fans, 22 new exhaust fans would be located on the roof of the Ancillary Building (Fundament and Associates 2007). These small fans would be scattered across the roof. They have been selected for quiet operation. Additionally, a seven-foot-high architectural screen wall is proposed to be added to the west and to portions of the northern and southern edges of the Ancillary Building. This solid screen wall would act as noise barrier for the small exhaust fans that are located along the western portion of the building. A gap of a few inches may be needed along the bottom of the parapet wall for drainage, but would be fitted with a skirt to cover the gap as viewed from the residential area.

Until the specific fans are selected, noise levels at the residences at the property line cannot be determined. The modeled noise level at the upper floor of the nearest condominium was calculated including the effect of the seven-foot-high screen wall. The projected noise level is 42.1 dBA at the property line; this is below the criteria for the current Development Agreement (55 dBA), the City's Noise Ordinance (50 dBA), and the revised nighttime noise limit (58 dBA). Even when combined with the other fans in the area of Hoag, these new fans would not significantly add to the total noise level. In summary, the addition of the 22 fans on the Ancillary Building, when combined with the construction of the 7-foot-high screen wall, would not generate significant noise levels or exceed the revised noise standards.

***Air Handlers.*** The air handlers on the third floor of the western face of the West Tower would need to be reduced by 3 dBA to comply with the current Development Agreement. There are large air handler units in the third floor of the West Tower that exhaust or intake air for the building. Six fans (i.e., EF-8, FC-4, SF-1, EF-12, EF-9, and EF-10) were identified in the West Tower. Acoustic louvers will be used to mitigate four of the fans (i.e., EF-8, EF-9, EF-10, and SF-1). FC-4 will remain; acoustic louvers could be used to mitigate the noise at this fan location. Due to the open nature of this building floor, acoustic louvers would be used around the perimeter of this floor. EF-12 protrudes through the side of the building; it is one of the louder fans. It is possible to fit a sound trap on EF-12 without the ducting protruding through the side of the building. Acoustic louvers are planned for the outside perimeter of this floor as depicted on Exhibit 3.4-7.

Hoag has identified feasible options to control the mechanical equipment noise located in the West Tower. The air handlers can be controlled with the use of appropriately rated acoustic louvers. Exhaust fan EF-12 needs to incorporate a sound trap and the exhaust duct needs to be shortened so that it would not extend past the acoustic louvers. These measures are projected to bring the mechanical equipment noise into compliance with the current 55 dBA Development Agreement noise limit and the proposed revised 58 dBA nighttime property line noise limit.

The proposed Master Plan Update Project would allow for the reallocation of up to 225,000 sf of approved but not constructed development from the Lower Campus to the Upper Campus; no specific projects are proposed. Because of this fact, 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 Master Plan Update Project. However, until actual equipment can be tested, it must be presumed that any new HVAC equipment could generate noise levels in excess of the revised noise levels. This would be considered a significant impact.

### *Loading Dock Area Activities*

Existing noise levels generated by loading dock activities were presented earlier in this SEIR section. Existing loading dock activities exceed the Noise Ordinance limits on a regular basis. By increasing the development at the Upper Campus, the Project could result in an additional increase in activity at the loading dock. Although a substantial increase due to the Project is not expected when compared to buildout of Hoag consistent with the existing Master Plan.

The primary source of noise at the dock is from delivery trucks. While more delivery truck visits to the loading dock could occur with the buildout of the Master Plan, it is likely that increased deliveries would be accommodated through larger loads in a similar number of trucks. An increase in the number of trucks is not expected to result in an increase in noise levels generated by the loading dock but would instead increase the frequency of high noise levels

generated by truck activity. As previously noted, noise levels near the loading dock have not changed substantially from what was measured for Final EIR No. 142.

Hoag has limited the hours of access to the loading dock and West Hoag Drive, the roadway that runs along the western side of the Upper Campus. Gates are closed at 8:00 PM and open at 7:00 AM. This action limits the loading dock noise to the hours when persons are generally considered less sensitive to noise. Because of the topography of the area and the fact that the adjacent residential uses are three stories, it is not feasible to construct noise barriers on Hoag's property that would provide additional noise reduction for the residents in the vicinity of the loading dock, beyond enclosing the entire loading dock area and road adjacent to the residential uses (which is not considered feasible). A noise barrier is only effective when it breaks the line of site between the noise source and the receiver.

Noise generated by the loading dock has not changed substantially from the noise levels measured in 1991. The proposed Master Plan Update Project is not expected to substantially increase loading dock activities; therefore, noise levels due to the Project would not result in a significant noise impact. However, activities in the loading dock area currently and will continue to exceed the noise limits contained in the Noise Ordinance. The proposed Master Plan Update Project contains exemption language 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 and other loading dock area noise would be subject to limits of 70 dB (daytime) and 58 dB (nighttime).

### *Cogeneration Facility*

The measured noise levels from the cogeneration facility equipment are in compliance 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. A fourth cooling tower is being installed at the facility. The addition of this cooling tower is expected to increase the cooling tower portion of the noise levels by approximately 1.2 dB. However, the cogeneration-related noise at the nearest residence is not from just the cooling tower; it is a combination of noise from the cogeneration facility's generator exhaust stacks and the cooling towers. A series of noise measurements was conducted on August 1 and 2, 2007, to determine the relative contribution of the exhaust stacks and cooling towers at the nearest residence.

The noise measurements were conducted at several locations at two microphone heights. The data indicate that, at the upper floors of the residences of concern, the rooftop exhaust stacks are the major contributor, accounting for approximately 60 percent of the noise from the cogeneration facility. The cooling towers account for approximately 40 percent of the noise.

Previous measurements at the residences of concern have ranged between 46.1 dBA and 49.8 dBA. 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 proposed Master Plan Update Project because the cogeneration facility is already 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 would need to take measurements once the fourth cooling tower is operational and determine if it is in compliance 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. The

City's Development Agreement with Hoag requires Hoag to provide an annual report to the City stating whether it is compliance with the terms of the Development Agreement.

Finally, there is the issue of whether the cogeneration facility will remain in compliance with the Noise Ordinance. The cogeneration facility-related noise is close to the Noise Ordinance limits for the nearest residences (i.e., 49.8 dBA). An increase of 0.6 dB for the cooling tower would result in an exceedance of the nighttime Noise Ordinance limits. This presumes that the ambient noise levels drop even lower, on occasion, than has been observed to date. The Noise Ordinance does not require that noise source levels be lower than the ambient levels caused by traffic, waves, crickets, etc.; to date, observed ambient noise levels have not been lower than 50 dBA at the residential site.

***Impact 3.4-4:*** ***Significant Impact.*** Long-term noise impacts from the grease trap cleaning operation and the cogeneration facility are not expected to be significant due to application of the City's Noise Ordinance. Noise generated from other activities in the loading dock and in the vicinity of the loading dock are considered significant, as the proposed Master Plan Update Project will modify the applicable noise standards such that limitations under the Noise Ordinance will be allowed to be exceeded. Mitigation is proposed for these impacts; however, with mitigation impacts are expected to remain significant.

***Threshold 3.4.1:*** ***Would the project expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

***Threshold 3.4.3:*** ***Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

**Traffic Noise Impacts on On-site Land Uses**

The highest future traffic noise levels affecting Hoag are identified in Table 3.4-7. Noise contours do not include barriers or topography that may reduce noise levels; they are intended to identify areas that require subsequent analysis as a part of site plan review by the City.

As discussed previously, the proposed Master Plan Update Project 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 Project is precluded.

Specific projects associated with the proposed Master Plan Update Project 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 of time. Any patio areas proposed to be located closer to the roadways than the 65 CNEL contour distance shown in Table 3.4-7 would be significantly impacted by traffic noise.

**TABLE 3.4-7**
**FUTURE TRAFFIC NOISE LEVELS IMPACTING HOAG**

| Roadway Segment | CNEL at 100 ft. | Distance To CNEL Contour(feet)[a] | | |
|---|---|---|---|---|
| | | 70 CNEL | 65 CNEL | 60 CNEL |
| **Hospital Road** | | | | |
| 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** | | | | |
| East of Balboa Boulevard/Superior Avenue | 68.6 | 80 | 173 | 373 |
| West of Hoag Drive | 68.9 | 84 | 182 | 392 |
| East of Hoag Drive | 65.9 | 53 | 114 | 247 |
| West of Newport Blvd. southbound off-ramp | 66.2 | 55 | 119 | 257 |
| **Superior Avenue** | | | | |
| North of West Coast Highway | 63.8 | 39 | 83 | 179 |
| **Hoag Drive** | | | | |
| South of Hospital Road | 58.7 | RW | 38 | 82 |
| North of West Coast Highway | 54.9 | RW | RW | 46 |
| **Newport Boulevard** | | | | |
| South of Hospital Road | 68.9 | 85 | 183 | 395 |

Notes:
[a] From centerline
RW – Contour falls within right-of-way
Source: Mestre Greve Associates 2007.

Typical commercial construction includes mechanical ventilation that allows windows to remain closed. With closed windows, typical construction provides at least 20 dB of outdoor-to-indoor noise reduction. Therefore, hospital buildings exposed to noise levels of 65 CNEL or less would experience indoor noise levels of 45 CNEL or less. Buildings at Hoag proposed to be located closer to roadways than the 65 CNEL contour distance (Table 3.4-7) could be significantly impacted by traffic noise.

Office buildings exposed to noise levels of 70 CNEL or less would experience indoor noise levels of 50 CNEL or less. Office buildings proposed to be located closer to roadways than the 70 CNEL contour distance (Table 3.4-7) could be significantly impacted by traffic noise.

***Impact 3.4-5:*** ***Significant Impact.*** Prior to mitigation, future on-site land uses could be impacted from traffic noise.

***Threshold 3.4.5:*** ***Would the project conflict with applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigation an environmental effect?***

Table 3.4-8 provides a summary of the project's consistency with applicable goals and policies from the *City of Newport Beach General Plan*.

**TABLE 3.4-8**
**CONSISTENCY OF THE PROPOSED PROJECT WITH NOISE-RELATED GOALS AND POLICIES**

| Goals and Policies | Consistency Analysis |
|---|---|
| *N 1: Minimize land use conflicts between various noise sources and other human activities.* | |
| N 1.1: Require that all proposed projects are compatible with the noise environment through the use of Table N2, and enforce the interior and exterior noise standards shown in Table N3. *(Imp 2.1)*<br><br>N 1.2: Applicants for proposed projects that require environmental review and are located in areas shown in Figure N4, Figure N5, and Figure N6 may conduct a field survey, noise measurements or other modeling in a manner acceptable to the City to provide evidence that the depicted noise contours do not adequately account for conditions. *(Imp 2.1)* | The noise analysis contained in this SEIR addresses the proposed Master Plan Update Project's noise compatibility with the City's Noise Ordinance, General Plan Noise Element, existing Development Agreement and PC Text, and modifications to the noise standards proposed as a part of the project as well as the PC Text Amendment and Development Agreement Amendment. This SEIR noise analysis notes that no development projects are proposed as a part of the Project, and would be subject to noise analysis as site-specific projects are proposed at Hoag. Noise generated at Hoag would be governed by the City's Noise Ordinance except adjacent to the loading dock area where modifications to the daytime and nighttime standards are requested, and within the loading dock area, where delivery vehicles and the loading and unloading of delivery vehicles would be exempt from any applicable noise standards. |
| N4: Minimize non-transportation-related noise impacts on sensitive noise receptors. | |
| N 4.1: Enforce interior and exterior noise standards outlined in Table N3, and in the City's Municipal Code to ensure that sensitive noise receptors are not exposed to excessive noise levels from stationary noise sources, such as heating, ventilation, and air conditioning equipment. *(Imp 7.1)* | As addressed above, noise generated at Hoag would be governed by the Noise Ordinance with two exceptions: (1) noise limits adjacent to the loading dock area would be increased; (2) delivery vehicles and the loading and unloading of delivery vehicles would be exempt from noise standards. Mitigation is required to minimize noise from stationary noise sources. |
| N 4.6: Enforce the Noise Ordinance noise limits and limits on hours of maintenance or construction activity in or adjacent to residential areas, including noise that results from in-home hobby or work related activities. *(Imp 7.1, 8.1)* | The Project would comply with the Noise Ordinance limits on construction and property maintenance activities. |
| *N 5: Minimize excessive construction-related noise.* | |
| N 5.1: Enforce the limits on hours of construction activity. *(Imp 8.1)* | The Project would comply with the Noise Ordinance limits on construction and property maintenance activities. |

***Impact 3.4-6:*** ***No Impact.*** As identified, the proposed Master Plan Update Project would be considered consistent with the relevant goals and polices related to noise.

### 3.4.7 MITIGATION PROGRAM

The measures discussed below were adopted as a part of Final EIR No. 142 and would apply to the proposed Master Plan Update. Mitigation measure numbering reflects that provided in Resolution No. 92-43 for certification of Final EIR No. 142. Minor modifications to the mitigation measures are proposed to reflect the current status of the Master Plan Update Project; some mitigation measures in Final EIR No. 142 have already been implemented and are therefore no longer applicable. ~~Strikeout text~~ is used to show deleted wording and *italic text* is used to show wording that has been added. Additional mitigation required as a part of the proposed Master Plan Update Project is also noted.

## Project Design Features

No project design features have been identified.

## Standard Conditions and Requirements

All applicable standard conditions and requirements are incorporated into the adopted Mitigation Program for Final EIR No. 142.

### *Construction Activities*

SC 3.4-1 During construction, the Applicant shall ensure that all noise-generating activities be limited to the hours of 7:00 AM to 6:30 PM on weekdays and 8:00 AM to 6:00 PM on Saturdays. No noise-generating activities shall occur on Sundays or national holidays in accordance with the City of Newport Beach Noise Ordinance.

## Mitigation Measures

### *Final EIR No. 142 Previously Adopted Mitigation Measures*

Mitigation Measures to Carry Forward

*Construction Activities*

111. The Project Sponsor shall ensure that all internal combustion engines associated with construction activities shall be fitted with properly maintained mufflers and kept in proper tune.

*Operational Activities: Emergency Vehicles*

42. The City of Newport Beach shall send a letter to each emergency vehicle company that delivers patients to Hoag Hospital requesting that, upon entrance to either the Upper or Lower Campus, emergency vehicles turn off their sirens to help minimize noise impacts to adjacent residents. Hoag Hospital will provide the City with a list of all emergency vehicle companies that deliver to Hoag Hospital.

*Operational Activities: Loading Dock Activities*

119. Non-vehicular activities, such as the operation of the trash compactor, which occur in the vicinity of the service/access road shall be operated only between the hours of 7:00 AM and 7:00 PM daily.

Mitigation Measures Proposed for Revision

117. Use of the heliport/helipad shall be limited to emergency medical purposes or the transportation of critically ill patients in immediate need of medical care ~~not available at~~ *to and from* Hoag Hospital. Helicopters shall, to the extent feasible, arrive at, and depart from the helipad, from the northeast, to mitigate noise impacts on residential units to the west and south.

**Rationale:** The helipad is used for transport in and out of Hoag. Patients are brought also brought to Hoag via helicopter for emergency or specialized care. This change clarifies current operations at Hoag.

Mitigation Measures No Longer Required

39. If noise levels in on-site outdoor noise sensitive use areas exceed 65 CNEL, the Project Sponsor shall develop measures that will attenuate the noise to acceptable levels for proposed hospital facilities. Mitigation through the design and construction of a noise barrier (wall, berm, of combination wall/berm) is the most common way of alleviating traffic noise impacts.

    **Rationale:** Mitigation Measure 3.4-10 is proposed that would supersede Mitigation Measure 39.

40. Prior to occupancy of Master Plan facilities, interior noise levels shall be monitored to ensure that on-site interior noise levels are below 45 CNEL. If levels exceed 45 CNEL, mitigation such as window modifications shall be implemented to reduce noise to acceptable levels.

    **Rationale:** Mitigation Measure 3.4-11 is proposed that would supersede Mitigation Measure 40.

41. Prior to issuance of a grading and/or building permit, the Project Sponsor shall demonstrate to the City that existing noise levels associated with the on-site exhaust fan are mitigated to acceptable levels. Similarly, the Project Sponsor shall demonstrate to the satisfaction of the Building Department that all noise levels generated by new mechanical equipment associated with the Master Plan are mitigated in accordance with applicable standards.

    **Rationale:** Mitigation Measures 3.4-2 and 3.4-3 are proposed that would supersede Mitigation Measure 41.

112. The Project Sponsor shall ensure that construction activities are conducted in accordance with Newport Beach Municipal Code, which limits the hours of construction and excavation work to 7:00 a.m. to 6:00 p.m. on weekdays and 8:00 a.m. to 6:00 p.m. on Saturdays. No person shall, while engaged in construction, remodeling, digging, grading, demolition, painting, plastering or any other related building activity, operate any tool, equipment or machine in a manner that produces loud noises that disturbs, or could disturb, a person of normal sensitivity who works or resides in the vicinity, on any Sunday or any holiday.

    **Rationale:** Mitigation Measure 112 was adopted as part of Final EIR No. 142. This measure has been superseded by the City's standard condition for hours of construction.

114. Rooftop mechanical equipment screening on the emergency room expansion shall not extend closer than fifteen feet from the west edge of the structure and no closer than ten feet from the edge of the structure on any other side.

    **Rationale:** Mitigation Measure 114 was adopted as part of Final EIR No. 142 and has been implemented.

115. Noise from the emergency room expansion rooftop mechanical equipment shall not exceed 55 dBA at the property line.

**Rationale:** Mitigation Measure 115 was adopted as part of Final EIR No. 142 and has been implemented.

120. Within one year from the date of final approval of the Planned Community District Regulations and development Plan by the California Coastal Commission, as an interim measure, the Project Sponsor shall implement an acoustical and/or landscape screen to provide a visual screen from and reduce noise to adjoining residences from the loading dock area.

The design process for the Critical Care Surgery Addition shall include an architectural and acoustical study to ensure the inclusion of optimal acoustical screening of the loading dock area by that addition.

Subsequent to the construction of the Critical Care Surgery Addition, an additional acoustical study shall be conducted to assess the sound attenuation achieved by that addition. If no significant sound attenuation is achieved, the hospital shall submit an architectural and acoustical study assessing the feasibility and sound attenuation implications of enclosing the loading dock area. If enclosure is determined to be physically feasible and effective in reducing noise impacts along the service access road, enclosure shall be required. Any enclosure required pursuant to this requirement may encroach into any required setback upon the review and approval of a Modification as set forth in Chapter 20.81 of the Newport Beach Municipal Code.

**Rationale:** Mitigation Measure 120 applied to the Critical Care/Surgery Center, which was not developed. Therefore, this measure would no longer be applicable.

***Additional Mitigation Measures to Reduce Impacts of the Proposed Master Plan Update Project***

Construction Activities

MM 3.4-1 Prior to the initiation of vibration-generating demolition and construction activities, the Hoag Construction Project Manager shall notify building/department representatives that these activities are planned. This notification will allow for the relocation of vibration-sensitive equipment in portions of buildings that could be affected.

The Hoag construction staff shall work with the Project Contractor to schedule demolition and construction activities that use heavy equipment and are located within 50 feet of buildings where vibration-sensitive medical procedures occur, such that demolition and construction activities are not scheduled concurrent with sensitive medical operations. A system of communications would be established between selected vibration-sensitive uses/areas and Construction Managers so that noise or vibration which would affect patient care or research activities can be avoided.

On-Site Activities

The loading dock and existing mechanical equipment operation exceed current requirements, and therefore, result in a significant noise impact. Future mechanical equipment implemented as a result of Hoag buildout could result in a significant noise impact. Mitigation is discussed below. However, the proposed changes to the Development Agreement would allow higher noise levels

adjacent to the loading dock than that permitted by the City's Noise Ordinance. This modification to the noise limits would result in a significant impact despite the application of the mitigation measures described below.

*On-Site Activities: Mechanical Equipment*

MM 3.4-2 The final plans for heating, ventilation, and air conditioning (HVAC) equipment for the Ancillary Building and West Tower shall be submitted to the City for review and approval. The plans shall be reviewed by an Acoustical Engineer to ensure that they will achieve 58 dBA (Leq) at the property line adjacent to the loading dock area. These plans need to be submitted within six months of the certification of the *Hoag Memorial Hospital Presbyterian Master Plan Update Final Supplemental EIR* (SEIR). If Hoag does not pursue the redesign of the HVAC systems for the Ancillary Building and West Tower, Hoag shall submit within six months of the certification of the Final SEIR a plan to the City that details how Hoag will bring the current equipment into compliance with the 58 dBA nighttime noise limit when measured at the property line adjacent to the loading dock area.

MM 3.4-3 Prior to issuance of building permits for any project that includes HVAC equipment, an acoustical study of the noise generated by the HVAC equipment shall be performed and a report that documents the results shall be submitted. This report shall present the noise levels generated by the equipment and the methodology used to estimate the noise levels at nearby residential uses or property boundary, as applicable; the report will also demonstrate that combined noise levels generated by all new HVAC equipment does not exceed the applicable Development Agreement limits. This study shall be reviewed and approved by the City prior to issuance of building permits. After installation of the equipment, noise measurements shall be performed and provided to the City that demonstrates compliance with applicable noise level limits.

*On-Site Activities: Loading Dock*

Two options were considered for mitigating the loading dock noise impact: a soundwall at the property line and a cover over the loading dock area. Hoag has existing time restrictions for the loading dock operations. Truck deliveries can only occur during the hours of 7:00 AM and 8:00 PM. Non-vehicular activities in the loading dock area can only occur between 7:00 AM and 7:00 PM (See Mitigation Measure 119). Currently the loading dock does not meet the levels established by the Noise Ordinance related to nearby residences that would fall within the Zone III – Mixed Use category (60 dBA [Leq] or 80 dBA [Lmax] during the daytime).

A soundwall could be constructed along Hoag's westerly property line to reduce noise levels at the residences. However, the geometry in this area is not favorable for the construction of a soundwall. Hoag's property is lower than the residential property and therefore, the soundwall would, in effect, be constructed in a hole. The wall would need to be exceptionally high to provide the appropriate level of noise reduction for the residents on the top floor. It has been calculated that the soundwall would need to be 25.5 feet high to provide the 8 dB noise reduction to bring the loading dock noise into compliance with the Noise Ordinance. A 25.5 foot soundwall is not feasible. Caltrans, for example, limits soundwalls along freeways to 16 feet. In addition to being very costly, residents may not support a soundwall this high and close to their homes as many balconies would look directly at a solid block wall.

A second option would be a cover over the loading dock area. The cover would incorporate a solid roof and the structure would be open on the sides. The cover would extend over the loading dock area and extend to the western property line. The covered area would be approximately 6,400 sf. Design issues would include roof material, provision of adequate lighting, and location of structural columns, among other issues. The loading dock cover would not provide the 8 dB noise reduction necessary to bring the loading dock operations into compliance with the Noise Ordinance. Some residents located to the west and south of the loading dock would experience an approximate 5 dB noise reduction. These residents would have a sight line through the side of the covered area so the noise reduction benefit to them would therefore be minimal.

There are no feasible measures to bring the loading dock area into compliance with the City's Noise Ordinance. However, there are several measures that would provide some improvement in the noise levels associated with the loading dock. In most cases, the noise level improvement with these additional measures would be minimal or cannot be quantified. However, because they are feasible and would provide some noise relief, they are recommended as mitigation measures.

There are two measures that could be implemented at the residences that would reduce noise impacts, but would not bring the loading dock noise into compliance with the Noise Ordinance. These measures, which could be done either individually or in combination, consist of providing balcony barriers and window upgrades. Balcony barriers would extend the balcony enclosure up to a height of six or seven feet. Typically, the balcony barrier extension is constructed of $^{3}/_{8}$-inch tempered (safety) glass or $^{5}/_{8}$-inch plexiglass. The balcony barrier would reduce the noise levels on the balcony by approximately 6 dB, but would not bring the balcony area into compliance (an 8 dB reduction is needed). A variation to the balcony barrier would be to completely enclose the balcony with glass, in effect making it a sun room. This measure would achieve more than the 8 dB reduction needed, but would be subject to homeowner and Homeowner Association approvals.

A second measure would be to upgrade the windows in the residences. The amount of noise reduction is dependant on the quality of the existing windows and the quality of the retrofitted windows. A noise reduction would only be accomplished if the windows were in the closed position. It should be noted that the indoor Noise Ordinance criteria is applied with the windows in the open position, and no benefit would occur with the windows open. Measures that would modify the residences are not recommended because the acceptability of enclosing balcony areas or modifying windows to the residents and Homeowners Association is unknown and the feasibility is questionable.

MM 3.4-4 Truck deliveries to the loading dock area are restricted to the hours of 7:00 AM to 8:00 PM. It is noted that special situations may arise that require delivery outside of these hours.

MM 3.4-5 Sound absorption panels on the east wall of the loading dock shall be installed. Approximately 450 square feet of absorptive panels shall be used to cover major portions of the back wall of the loading dock area. The Noise-Foil panels by Industrial Acoustics or a panel with an equivalent or better sound rating shall be used.

MM 3.4-6 The trash compactor shall be relocated within the loading dock. The trash compactor and baler shall be enclosed in a three-sided structure. The walls shall be concrete block or similar masonry construction. The roof shall be lightweight

concrete roof or a plywood surface with concrete tiles; a built-up roof with 5′ 5″ of insulation on the inside would be an acceptable alternative. The open side shall face away from the residents. Doors may be on the side of the enclosure facing the residents, but must be closed when the baler or compactor are operating. The compactor and baler should only be operated between the hours of 7:00 AM and 7:00 PM.

MM 3.5-7 "No Idling" signs shall be posted in the loading dock area and any area where the trucks might queue.

*On-Site Activities: Grease Trap*

The grease trap operation is exempt from noise regulations. However, residents have complained about the noise, so Hoag investigated their options to reduce the noise from this activity. Hoag has examined ways in which the grease trap operation would be less intrusive to residents. The traps are cleaned during the morning on a weekend day about once per month. The typical cleanout operation lasts for 2 to 2 ½ hours. The operation involves 3 trucks: one 10,000 gallon tanker, one 7,500 gallon tanker, and one support van. All three trucks arrive concurrently to minimize down time, but each tanker must be filled separately due to limited access to the underground storage tanks (two tankers cannot physically occupy the available parking and street area adjacent to the access points for the underground tanks). Therefore, the option of bringing in more trucks to simultaneously pump out the grease traps and shorten the time of operation is not feasible.

Moving the cleanout operation to a weekday may be less intrusive to the residences; Hoag investigated this option. The area necessary for access by the tankers requires that the trucks occupy the vehicular parking above the underground tanks, as well as one drive aisle on West Hoag Drive. On Saturdays, the approximately 20 parking stalls needed for this the grease removal can be reserved with limited impact on Hospital operations. During the weekdays, these parking stalls, located directly adjacent to the Ancillary Building and the Hoag Heart and Vascular Institute outpatient facility, are important for safe and accessible parking. As noted above, the tankers also occupy one drive aisle during the cleaning operation which, while manageable on a Saturday morning or afternoon, would affect safe operations during the week; West Hoag Drive provides access for patients, staff, emergency vehicles, and service vehicles. Therefore, performing the grease trap cleanout on days other than a Saturday is not considered feasible.

MM 3.5-8 Grease trap cleaning operations shall be limited to Saturday between the hours of 11:00 AM and 3:00 PM.

*On-Site Activities: Cogeneration Facility*

The operation of the fourth cooling tower at the cogeneration facility could result in an exceedance of the Noise Ordinance.

MM 3.5-9 Upon installation of the fourth cooling tower at the cogeneration facility, additional noise measurements shall be performed to determine compliance with the City's Noise Ordinance. The measurements shall be made and a report submitted to the City within three months of commencement of operations of the fourth cooling tower. If a violation is noted, the problem must be corrected and a second set of measurements submitted to the City showing compliance within one year of commencement of operations of the fourth cooling tower.

On-Site Land Uses

MM 3.4-10 Prior to the issuance of building permits for any Hoag patio use proposed to be located closer to the roadway then the 65 CNEL contour distance shown in Table 3.4-7, a detailed acoustical analysis study shall be prepared by a qualified Acoustical Consultant and a report shall be submitted to the City for review and approval. The Acoustical Analysis Report shall describe and quantify the noise sources impacting the area and the measures required to meet the 65 CNEL exterior residential noise standard. The final building plans shall incorporate the noise barriers (wall, berm, or combination wall/berm) required by the analysis and Hoag shall install these barriers prior to issuance of a Certificate of Occupancy.

MM 3.4-11 Prior to issuance of building permits, a detailed acoustical study using architectural plans shall be prepared by a qualified Acoustical Consultant and a report shall be submitted to and approved by the City for Hoag buildings that are proposed to be located closer to the roadway than the 65 CNEL contour distance shown in Table 3.4-7 and for office buildings that are proposed to be located closer to the roadway than the 70 CNEL contour distance (Table 3.4-7). This report shall describe and quantify the noise sources impacting the building(s); the amount of outdoor-to-indoor noise reduction provided by the design in the architectural plans; and any upgrades required to meet the City's interior noise standards (45 CNEL for hospital uses and 50 CNEL for office uses). The measures described in the report shall be incorporated into the architectural plans for the buildings and implemented with building construction.

### 3.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed changes to the Development Agreement 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. Modification of the Development Agreement, as proposed, will allow noise to exceed the Noise Ordinance criteria in the vicinity of the loading dock area, even after application of the feasible mitigation measures discussed above; therefore, the proposed changes must be identified as resulting in significant and unavoidable adverse impacts.

## 3.5 AESTHETICS

The viewshed analysis in Final EIR No. 142 incorporated information from Final EIR No. 136 (prepared for the Patty & George Hoag Cancer Center on the Lower Campus and prepared by LSA), as well as information from visual analyses conducted by Vail Speck Taylor, Model Technics, and by an Ad Hoc Committee of the West Newport Beach Association. As a Supplemental EIR (SEIR), this section discusses potential changes in the viewshed since certification of Final EIR No. 142 or as a result of the proposed Master Plan Update Project. Public and private viewsheds have been identified and the potential visibility of Hoag from these vantage points has been determined. The information in this SEIR section is based on field reconnaissance, review of the site and aerial photographs, as well as aesthetic and topographic information from Final EIR No. 142, which are incorporated by reference and summarized where applicable.

### 3.5.1 SUMMARY OF FINAL EIR NO. 142

Final EIR No. 142 provides a comprehensive evaluation of the potential aesthetic, topographic, and landform effects for the Master Plan Project proposed in 1992. The evaluation included viewpoint analyses from West Coast Highway; the residential development north of Hoag Hospital; land uses west of Newport Boulevard; public views along the area developed as the Sunset View linear park; and potential impact on ocean views. A summary of the findings of Final EIR No. 142 as related to aesthetics, topography, and landform is provided below.

#### Landform and Topography

The Master Plan project evaluated in Final EIR No. 142 determined that landform alteration would not result in significant visual impacts. Grading on the Upper Campus was not anticipated to be extensive and would not result in substantial landform alteration because previous grading activities had already altered the natural topography in this area.

Final EIR No. 142 identified that, although grading would occur on the Lower Campus, the slope would visually retain a similar configuration to what existed at the time the EIR was certified in 1992. At that time, the Lower Campus had a relatively flat mesa top along the northern portion with a large downslope that led to a relatively flat expanse of property in the southern portion of Hoag that is adjacent to West Coast Highway. Final EIR No. 142 assessed the 1992 Master Plan Project, which proposed the grading of the Lower Campus to accommodate development in this location. Grading was to include cut slopes supported with crib walls and separated by an access road below the edge of the upper mesa. Final EIR No. 142 noted that off-site views of the slope would retain a similar configuration; however, these views would be shifted to the north and the mesa top would be slightly lowered. Final EIR No. 142 concluded that there would be no significant visual impacts as result of grading activities on the Lower Campus.

#### Viewsheds

Views of the Upper Campus consist of the developed Hoag site. The areas with the most direct views of the Upper Campus are land uses located east of Newport Boulevard, which include a mix of residential, commercial, and some industrial uses. Views from Newport Boulevard are largely obstructed by the intervening cut slope associated with the roadway. Views from West Coast Highway include views of the Lower Campus and the existing uses on the Upper Campus. Development approved for the Upper Campus allows for the demolition and reconstruction of existing structures, additions to existing buildings, and/or construction of new buildings. The Hoag Hospital Master Plan Final EIR No. 142 concluded that even though

implementation of the Master Plan would alter existing viewsheds of the Upper Campus, the change would not have a significant visual impact because the visual perception of the Upper Campus would not be substantially altered.

As set forth in Final EIR No. 142, development in the Lower Campus area may have a "perceived significant impact on those residents who live to the north of the Lower Campus." However, Final EIR No. 142 concludes, "…because this change is not out of character with the surrounding area (i.e., Upper Campus and the eastern portion of the Lower Campus) or inconsistent with City plans or policies, it does not represent a significant visual impact."

**Shade and Shadow**

Final EIR No. 142 identified that the development on the Upper Campus would cast shadows on adjacent land uses. The tallest structure at the time was the Hospital Tower (West Tower), at approximately 175 feet above grade level; structures up to 235 feet above mean sea level (msl) are permitted in the Tower Zone. Final EIR No. 142 noted that development on the Lower Campus would not cast shadows on other properties because it is at a lower elevation than the adjacent land uses. The Versailles and Villa Balboa residential developments (located west of the Upper Campus) were identified as the only sensitive land uses for shade and shadow. Final EIR No. 142 identified that Master Plan buildout would increase shadow effects to residential units west of Hoag. While this may be perceived as adverse by some of the residents, Final EIR No. 142 concluded that it would not be a significant impact because of the short daily duration of the effect. Shading would only affect a portion of condominiums during the early morning hours and it would not substantially limit solar energy access to the structures. However, Final EIR No. 142 identified that the combination of shade, shadow, and noise effects would contribute to significant unavoidable land use compatibility impacts to residences located west of the Upper Campus.

### 3.5.2 EXISTING CONDITIONS

**On-site Conditions**

Since the certification of Final EIR No. 142 and the approval of the Hoag Hospital Master Plan, there have been several construction projects at Hoag. Exhibit 3.1-1 (see Section 3.1) provides an overview of the existing buildings at Hoag.

As previously discussed in this SEIR, the Upper Campus has higher intensity uses which consist of multiple high-rise buildings, including the West Tower and the Women's Pavilion. These buildings are ten stories and seven stories, respectively, and are taller than surrounding on-site and off-site structures. This building height combined with the tight clustering of surrounding buildings helps to define the visual character of the site as that of a regional medical center. Exhibits 3.5-1a to 3.5-1i provide photographs of Hoag from various adjacent vantage points. These viewpoints duplicate many of the viewpoints evaluated in Final EIR No. 142.

Access from West Coast Highway onto the Lower Campus is from Hoag Drive. Development on the Lower Campus is predominately east of the West Coast Highway and Hoag Drive intersection. Existing facilities include the Cancer Center, Conference Center and parking, and the employee childcare center. On the southeastern edge of the Lower Campus is the cogeneration facility. Between the cogeneration facility and the other facilities are numerous construction trailers associated with ongoing construction projects at Hoag. The visual character of the Lower Campus is different from the Upper Campus because of the lower intensity of the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## Photograph View Locations

Exhibit 3.5-1a

*Hoag Hospital Master Plan Update Supplemental EIR*

N W E S

BonTerra CONSULTING

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View 1: View from West Coast Highway.

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Site Photographs

Exhibit 3.5-1b

*Hoag Hospital Master Plan Update Supplemental EIR*

Boriterra CONSULTING

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View 2: View from the North of Lower Campus.

View 3: View from the North of Lower Campus.

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## Site Photographs

Exhibit 3.5-1c

*Hoag Hospital Master Plan Update Supplemental EIR*

Bonterra CONSULTING

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View 4: View from Sunset View Park.

View 5: View from Sunset View Park.

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## Site Photographs

Exhibit 3.5-1d

*Hoag Hospital Master Plan Update Supplemental EIR*

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View 6: View from Sunset View Park.

View 7: View from Sunset View Park.

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## Site Photographs

Exhibit 3.5-1e

*Hoag Hospital Master Plan Update Supplemental EIR*

Boriterra CONSULTING

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View 8: View from Sunset View Park.

View 9: View from Sunset View Park.

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## Site Photographs

Exhibit 3.5-1f

*Hoag Hospital Master Plan Update Supplemental EIR*

BonTerra CONSULTING

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View 10: View from Hospital Road Looking South.

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## Site Photograph

Exhibit 3.5-1g

*Hoag Hospital Master Plan Update Supplemental EIR*

Boniterra CONSULTING

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View 11: View from Old Newport Avenue North of Hospital Road.


View 12: View from Westminster Avenue West of Clay Street.


View 13: View from Holmwood Drive at Beacon Street.

View 14: View from Westminster Avenue East of Clay Street.

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## Site Photographs

Exhibit 3.5-1h

*Hoag Hospital Master Plan Update Supplemental EIR*

BonTerra CONSULTING

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View 15: View from the South side of Arches on West Coast Highway.

View 16: View from Old Newport Avenue.

View 17: View from West Coast Highway.

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## Site Photographs

Exhibit 3.5-1i

*Hoag Hospital Master Plan Update Supplemental EIR*

BonTerra CONSULTING

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uses. Not only are the buildings low rise, there is substantially more open space and landscaping surrounding the buildings. The western portion of the Lower Campus (where the construction trailers are located) contains very limited landscaping immediately adjacent to West Coast Highway. There is no landscaping on this portion of the site other than some vegetation on the slope that separates the Lower Campus from the residential uses. Overall, the appearance of the western portion of the Lower Campus is that of a construction zone. Although they are temporary trailers used by the construction companies that are involved in the improvements at Hoag, they have been present for a number of years and would continue to be present because of the long-term nature of the implementation of the Master Plan.

**Off-site Views**

Hoag is at a visually prominent location northwest of the intersection of Newport Boulevard and West Coast Highway. It is visible to motorists along each of the adjacent roadways and from the surrounding land uses in the vicinity of the site. Coastal views can be seen from Newport Boulevard and Superior Avenue south of Hospital Road. No coastal views are afforded along the segment of West Coast Highway adjacent to Hoag because of changes in elevation and intervening development.

Originally part of the Lower Campus is Sunset View Park, a linear park that separates the Lower Campus from the residential development immediately north of Hoag. Hoag previously dedicated this area as "parkland." It currently has a bike path and offers ocean views. As a view park; its intended purpose is to provide scenic opportunities. However, it should be noted that the designation of the park was done in conjunction with the approval of the Hoag Master Plan in 1992. As such, it was understood that there would be development on the Lower Campus that would be visible from the park. Building height restrictions are identified, however, in the *Hoag Memorial Hospital Presbyterian Planned Community Development Criteria and District Regulations* (PC Text, which is in Appendix B of this SEIR) for the Lower Campus in order protect public views from this park.

Residential development is generally more sensitive to changes in views and is located both north and south of the Lower Campus. The Versailles and Villa Balboa Condominiums north and west of Hoag have direct views across and over the Lower Campus. These views would be greatest for the first row of condominiums; however, units set further back would also have partial, obstructed views of Hoag. The easterly units in the Villa Balboa development would also have views of the western portion of the Upper Campus, including the existing parking structure.

West Coast Highway separates residential development to the south from Hoag. Although this development would have views of Hoag, the general orientation of this development is to the south toward the ocean. Most of these residences are further separated from Hoag by local access streets with exterior areas that open directly onto the water.

North of the Upper Campus and west of Newport Boulevard are office buildings and a residential care facility. These uses would have views of Hoag. As previously indicated, east of Newport Boulevard are a mix of residential, commercial, and industrial uses. Most of these uses back onto Newport Boulevard with views oriented toward the southeast. However, there are locations (primarily residential) that have views across Newport Boulevard toward Hoag. The Upper Campus is prominent in these viewsheds.

**Master Plan Development Criteria**

The Master Plan contains development criteria that were addressed in Final EIR No. 142. Since the existing Master Plan does not propose specific buildings on the site, the visual analysis conducted in Final EIR No. 142 evaluated the potential impacts associated with development envelopes. Allowable building heights were assumed for the entire envelope to ensure that potential impacts were addressed regardless of the specific locations ultimately decided upon within Hoag. No changes are proposed to the development criteria (e.g., building heights, development envelopes, setbacks). The development criteria are depicted in Exhibit 3.5-2.

On the Upper Campus, the core area is identified as the Tower Zone, where heights are allowed up to 235 feet above msl. Surrounding the Tower Zone is the Midrise Zone where development up to 140 feet above msl is allowed. The Parking Zone on the southern portion of the Upper Campus has a height restriction of 80 feet above msl. Height above mean sea level is used as the standard rather than a building height in order to recognize the sloping nature of the site and to provide a development envelope above which building would not be allowed. The height restrictions for development on the Lower Campus vary (Exhibit 3.5-2).

**General Plan Policies**

The Natural Resources and Land Use Elements of the General Plan identify objectives and policies pertaining to visual resources. These policies are identified in Table 3.5-1 later in this section with a discussion of the consistency with the proposed Master Plan Update Project.

### 3.5.3 THRESHOLDS OF SIGNIFICANCE

The following threshold criteria are from the Initial Study checklist contained in Appendix G of the State CEQA Guidelines. The proposed Master Plan Update Project would result in a significant impact related to aesthetics if it would:

| | |
|---|---|
| Threshold 3.5-1 | Have a substantial adverse effect on a scenic vista. |
| Threshold 3.5-2 | Substantially degrade the existing visual character or quality of the site and its surroundings. |
| Threshold 3.5-3 | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. |
| Threshold 3.5-4 | Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. |

### 3.5.4 ENVIRONMENTAL IMPACTS

The proposed Master Plan Update Project would allow for the reallocation of up to 225,000 square feet (sf) of previously approved (but not constructed) square footage between the Upper Campus and Lower Campus. Site-specific development is not proposed as a part of the Master Plan Update Project. No modifications to the development criteria adopted in conjunction with the 1992 Master Plan are proposed that would change building envelopes, heights, or setbacks. The proposed Master Plan Update Project does not provide for the

# LEGEND

HEIGHT ZONES

## UPPER CAMPUS ZONES

TOWER ZONE- MAXIMUM BUILDING HEIGHT
235' ABOVE MEAN SEA LEVEL

MIDRISE ZONE- MAXIMUM BUILDING HEIGHT
140' ABOVE MEAN SEA LEVEL

PARKING ZONE- MAXIMUM BUILDING HEIGHT 80' ABOVE MEAN SEA LEVEL, EXCLUSIVE OF ELEVATOR TOWER

## LOWER CAMPUS ZONES

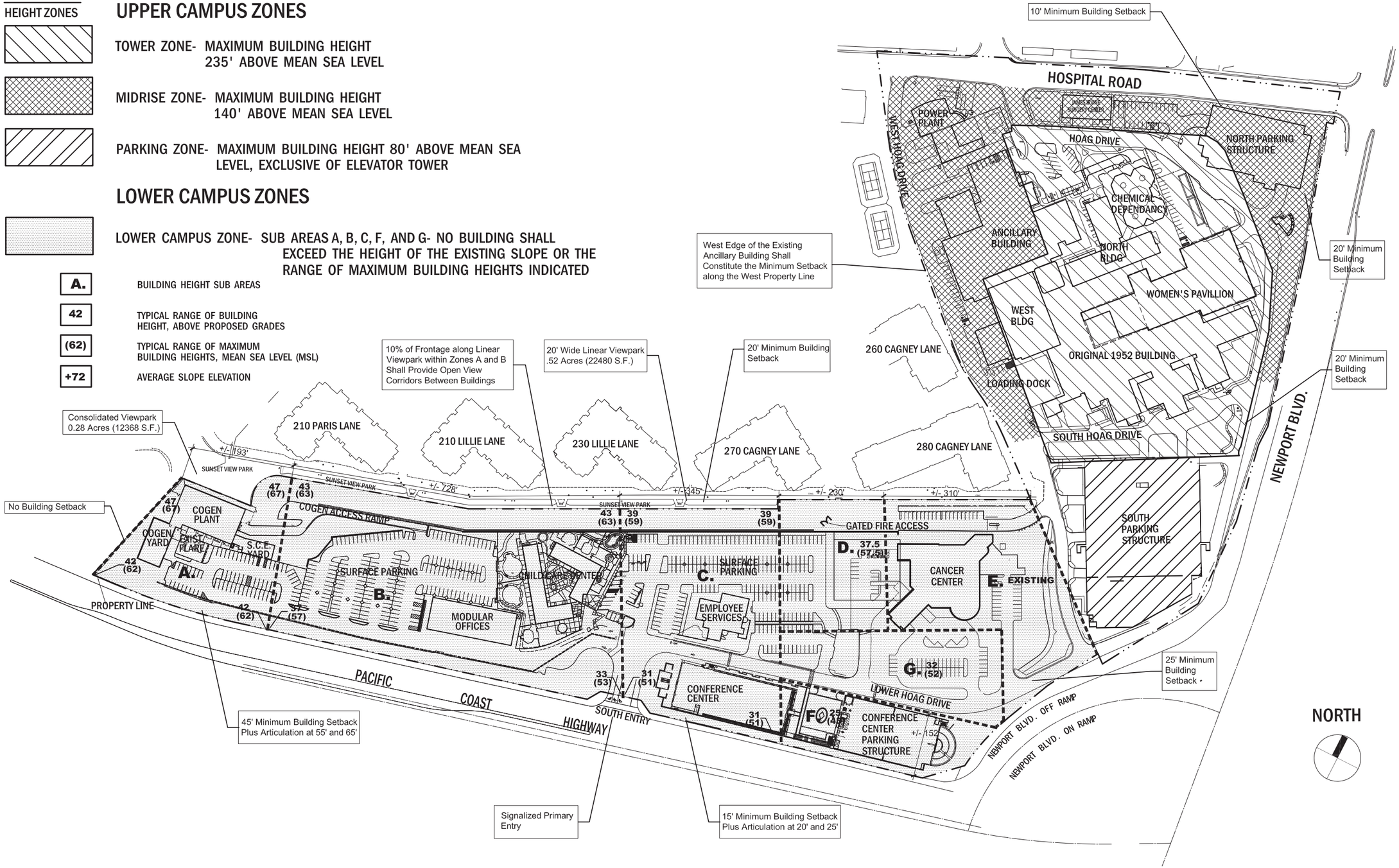
LOWER CAMPUS ZONE- SUB AREAS A, B, C, F, AND G- NO BUILDING SHALL EXCEED THE HEIGHT OF THE EXISTING SLOPE OR THE RANGE OF MAXIMUM BUILDING HEIGHTS INDICATED

**A.** BUILDING HEIGHT SUB AREAS

**42** TYPICAL RANGE OF BUILDING HEIGHT, ABOVE PROPOSED GRADES

**(62)** TYPICAL RANGE OF MAXIMUM BUILDING HEIGHTS, MEAN SEA LEVEL (MSL)

**+72** AVERAGE SLOPE ELEVATION

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Development Criteria — Exhibit 3.5-2

*Hoag Hospital Master Plan Update Supplemental EIR*

Bonterra CONSULTING

R:/Projects/Newport/J008/Graphics/Ex.3.5-2_083007.pdf

approval of any specific development project. Therefore, there are no specific building designs, locations, or features that can be evaluated. Consistent with Final EIR No. 142, this SEIR assesses future development consistent with existing building restrictions. Building restrictions would not be modified as a part of the proposed Master Plan Update Project.

## Impact Analysis

***Threshold 3.5-1: Would the project have a substantial adverse effect on a scenic vista?***

***Threshold 3.5-2: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?***

Visual impacts are relative to the visual environment in which they occur. An important consideration when determining if the Project would significantly affect visual resources is how strongly the proposed Master Plan Update Project would contrast with the visual quality of the existing setting. If the proposed Master Plan Update Project would differ greatly from the existing uses, it has greater potential to have significant visual impacts because of the change in the visual character of the site and to the surrounding area.

Another factor is the identification of the viewers, their sensitivity to the visual elements, and the duration of their view. For instance, there would be a large number of Hoag viewers on the local roadways; however, the duration of their views would be very short and their sensitivity to the views would only be moderate. A homeowner would have views of longer duration and would be more sensitive to changes in the viewshed.

### *Views from On the Site*

As previously discussed, the proposed Master Plan Update Project would allow greater intensity of development on the Upper Campus. This would allow intensification of uses for the Upper Campus and a commensurate reduction in intensity on the Lower Campus. This would not result in significant visual impacts to views from Hoag. There are locations (such as the upper stories of the West Tower or Women's Pavilion) that offer views. Without specific development plans, it is unknown exactly how these views would be altered. However, these are not public viewpoints and the views are not essential to the nature of the uses. Therefore, potential changes to views would not be considered a significant impact.

### *Views from Off the Site*

Upper Campus

The proposed Master Plan Update Project would intensify development on the Upper Campus by allowing a transfer of up to 225,000 sf from the Lower Campus to the Upper Campus. Within the Upper Campus, the Tower Zone allows development up to 235 feet above msl. This height limitation would be retained but more and/or taller multi-story structures would be expected in this area. The original four-story hospital building is located within this zone. As envisioned in both the existing and proposed Master Plan projects, it is likely that this facility would be demolished and replaced with one or more multi-story structures consistent with the Tower Zone height limits. Although this change was anticipated in the original Master Plan, the proposed Master Plan Update Project would allow greater flexibility for increasing the size and/or number of the structure(s) within the Tower Zone because of increased square footage in the Upper Campus associated with the proposed transfer of allowable development from the

Lower Campus. Overall, this would not substantially change the character of this portion of Hoag. As previously indicated, the Upper Campus represents the high-intensity core of hospital operations.

Residents would be the most sensitive to changes to the visual landscape because they have views for the longest duration and viewshed protection is generally an important issue for homeowners. The majority of the residential areas do not have immediate foreground views of the Upper Campus because of building placement and view orientation either outward toward the ocean or inward toward the common landscaped areas within the condominium development. There is also a heavily landscaped edge between the Upper Campus and the residential development to the west. However, residential units along the western edge of the Upper Campus, especially units on upper stories, do have views of the uses along West Hoag Drive and beyond, including the loading docks and service areas at Hoag. The views from these units would not substantially change as a result of the proposed Master Plan Update Project. The area immediately adjacent to these uses is designated as the Midrise Zone. Should, as future projects are proposed and implemented, these areas be modified, the development criteria and mitigation measures adopted as part of the original Master Plan and Final EIR No. 142 would apply. This would include the need to ensure that all mechanical equipment and trash areas are screened from public streets, alleys, and adjoining properties. As previously indicated, Final EIR No. 142 addressed development of the site 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 addressed in Final EIR No. 142 because the development criteria would not be modified.

Because of the building heights and associated height restrictions, the adjacent condominium development to the west would have midrange views of development within Hoag's Tower Zone. With the proposed Master Plan Update Project, development in the Tower Zone is expected to intensify. For example, if the original hospital building is demolished and a high-rise structure(s) is constructed in that location, it would likely be visible to some residents, especially to those units adjacent to Hoag's western boundary. However, the existing West Tower would block part of the new development view. Although this may alter residents' views, this change (intensification of development in the Upper Campus including the Tower Zone) was anticipated and would be consistent with the development concepts approved as part of the original Master Plan. Such development would be compatible with other uses within the Tower Zone (e.g., the West Tower and the Women's Pavilion). The overall visual character of the Upper Campus as an intensely developed urban area with high-rise structures would not be substantially altered. Future development associated with the transfer of square footage from the Lower Campus to the Upper Campus would not have a significant visual impact to the adjacent condominium units.

As previously indicated, residential development south and east of the hospital (south of West Coast Highway and east of Newport Boulevard) would not be affected by the proposed Master Plan Update Project. These residences are physically separated from Hoag by major streets and their view orientation is generally toward the ocean or internal to their respective developments. Views of the Upper Campus would be midrange views. As with the development to the west of Hoag, the intensification of development in the Tower Zone would not substantially change the visual character of the site or obstruct their views. No significant impact to these residential uses is anticipated.

The views from adjacent office and commercial uses would not be substantially altered because maximum building heights would not be modified and these locations already have views of the

existing on-site multi-story buildings. Additionally, it should be noted that views are not an integral part of the operation for these uses. No significant impacts would be anticipated.

Hoag would also be visible from the adjacent roadway. As previously addressed, viewers on the roadway would have less sensitivity to changes in the aesthetic environment and would experience views that are very short in duration. Although West Coast Highway is eligible for designation as a State Scenic Highway, it has never been officially designated as such (Caltrans 1996). As discussed below under the General Plan analysis, Newport Boulevard and Superior Avenue are designated as "coastal view roads." The approved development criteria for the Upper Campus would not block ocean views from either of these roadways. Newport Boulevard is at a lower elevation as it passes adjacent to the Tower Zone. Intervening topography would block views of the ocean to the west along the roadway. From Superior Avenue, the intervening development to the east would block views of the ocean. Intensification of development on the Upper Campus would not substantially alter views from these roadways. Development on the Upper Campus would be visible from West Coast Highway. The proposed Master Plan Update Project would result in an intensification of these uses but, as from the other locations, it would not change the visual character from West Coast Highway. The existing Tower Zone provides a visual focus area as seen from West Coast Highway. The proposed Master Plan Update Project would be a continuation of the urban character that currently exists on the campus.

Lower Campus

The Lower Campus is immediately south of Sunset View Park and the Villa Balboa development. However, there is a substantial elevation difference between these uses. As discussed in Final EIR No. 142, development on the Lower Campus has greater potential for visual impacts because it is within the viewshed of the residences. Additionally, the park, which was dedicated as a condition of Master Plan approval, is identified as a view park. To address concerns associated with obstruction of views, the development criteria in the existing Master Plan provides that building heights on the Lower Campus be restricted so as not to exceed the height of the existing slope. Additionally, the Lower Campus is divided into eight zones, each with a specified building height (see Exhibit 3.1-2 in Section 3.1). These zones specify typical building height above proposed grade and typical range of maximum building height above msl. By complying with these building height requirements, Hoag buildings would not intrude on the viewpoints within the park or from the residential units. The proposed Master Plan Update Project would not change the development criteria. Additionally, the Lower Campus plans include a landscaped treatment wall to screen Lower Campus facilities along Coast Highway from Hoag's northerly property line to the Lower Campus entrance. This wall would provide a landscape buffer for both pedestrians and vehicles.

With the transfer of square footage from the Lower Campus to the Upper Campus, there would be less overall development allowed on the Lower Campus. This, combined with compliance with the development criteria, would avoid or minimize potential visual impacts to the residents or park visitors. These height restrictions would also avoid impacts on views from Superior Avenue and Newport Boulevard, which, as identified in the General Plan Natural Resources Element Policy NR 20.3, are designated as "public view corridors."

As previously indicated, the residential development south of West Coast Highway is oriented toward the ocean. Views of Hoag would be midrange views from the local streets and entry areas of these residences. Overall, the visual character of the site would not be substantially different. No significant impacts on aesthetic resources are expected.

### *Shade and Shadow*

The analysis in Final EIR No. 142 noted that the existing Master Plan would result in greater morning shade and shadow on the adjacent condominium development because of continued development within 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. Even with the proposed transfer of square footage from the Lower Campus, it is not reasonable to assume that the entire Upper Campus could be built out at maximum height, but this assumption allows the analysis to consider the impact regardless of the precise location of future buildings. The results of the previous analysis found that Master Plan buildout would increase shadow effects to the condominiums located west of Hoag. The amount of increased shade and number of units affected would vary depending on the time of the year. The buildings along Hoag's western boundary would be affected. For residential units that currently receive shade from Hoag structures, the duration would be increased. For residences that are not shaded, there would be a noticeable change. However, 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 fact that the shading effects only affect a portion of the structures during the early morning hours; and the fact that the increased shade would not substantially limit solar energy access to the structures. Since the proposed Master Plan Update would not alter the maximum allowable height buildings at Hoag, these potential impacts would not be different from what was previously addressed.

***Impacts 3.5-1 and 3.5-2:*** ***Less Than Significant Impact.*** Final EIR No. 142 identified that the Master Plan would not result in significant aesthetic or visual impacts. The Final EIR found that as an individual project effect, shade and shadow impacts were considered less than significant. The proposed Master Plan Update Project would not result in any significant visual impacts either prior to or after mitigation that were not previously identified in Final EIR No. 142. Impacts associated with the Project would be no greater than identified in Final EIR. 142.

***Threshold 3.5-3:*** ***Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

### *Lighting*

With the increase in square footage, there is the potential for increased lighting on the Upper Campus. However, the incremental change would not be substantial because of the limited size of the Upper Campus and existing development. Continuous lighting on the site is required because it is a 24-hour operation and because of arriving patients and visitors who may not be familiar with the site layout. Conditions already placed in the Master Plan require that the lighting system for all buildings and the window systems for buildings on the western side of the Upper Campus minimize light spillage and glare to the adjacent residential areas. Ongoing implementation measures would reduce the potential lighting impacts on adjacent uses. This would not be considered a significant lighting impact.

***Impact 3.5-3:*** ***Less Than Significant Impact.*** As an existing 24-hour land use, Hoag has existing night lighting. Ongoing development of Hoag would not result in significant new sources of lighting or glare.

***Threshold 3.5-4:*** ***Would the project conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including,***

***but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?***

### *General Plan Policies*

Table 3.5-1 evaluates the consistency of the proposed Master Plan Update Project with the applicable goals and policies of General Plan.

**TABLE 3.5-1**
**CONSISTENCY OF THE PROPOSED MASTER PLAN UPDATE PROJECT WITH AESTHETICS-RELATED GOALS AND POLICIES**

| Goals and Policies | Consistency Analysis |
|---|---|
| ***Natural Resources Element*** | |
| *Goal NR 20: Preservation of significant visual resources*. | |
| NR 20.1: Protect, and, where feasible, enhance significant scenic and visual resources that include open space, mountains, canyons, ridges, ocean, and harbor from public vantage points, as shown on Figure NR3. *(Imp 2.1)* | The existing *Hoag Hospital Master Plan* provided for the protection of ocean views, which would be considered a significant scenic resource, by the dedication of the linear park along the northern edge of the Lower Campus. The General Plan identifies multiple public viewpoints within the park. With the implementation of the approved development on the Lower Campus, views from the park would change, although ocean views would be protected because of height limitations on the Lower Campus. The proposed Master Plan Update Project would result in less development on the Lower Campus because square footage approved for the Lower Campus would be transferred to the Upper Campus. As previously noted, the park area was dedicated as a condition of the Master Plan. Therefore, it was understood that views would be altered. The Project is consistent with this policy. |
| NR 20.2: Require new development to restore and enhance the visual quality in visually degraded areas, where feasible, and provide view easements or corridors designed to protect public views or to restore public views in developed areas, where appropriate. *(Imp 20.3)* | As discussed above for Policy NR 20.1, the Master Plan provided for the dedication of the view park, which provides for public views of the ocean. The development criteria for the Lower Campus provide for protection of those views. Therefore, the proposed Master Plan Update Project would not conflict with this policy. |
| NR 20.3: Protect and enhance public views from identified roadway segments and other locations that may be identified in the future. *(Imp 2.1, 20.3)* | The General Plan identifies 2 coastal view corridors: (1) Newport Boulevard from Hospital Road/Westminster Avenue to Via Lido and (2) Superior Avenue from Hospital Road to West Coast Highway. There would be coastal views across the Lower Campus. The existing height restrictions in the development criteria would continue to preserve these views. Therefore, the proposed Master Plan Update Project would not conflict with this policy. |
| NR 20.4: Design and site new development, including landscaping, on the edges of public view corridors, including those down public streets, to frame, accent, and minimize impacts to public views. *(Imp 2.1)* | The development criteria provide for a building setback from all public streets, and landscaping has been provided at Hoag. The landscaping helps to minimize visual impacts by softening the view of the development. Hoag maintains the landscaping on the site. Landscaping within public right-of-way, including berms and slopes, is maintained by the responsible jurisdiction (Caltrans is the responsible jurisdiction for West Coast Highway and the City of Newport Beach is the responsible agency for other local roads). |
| NR 20.5: Provide public trails, recreation areas, and viewing areas adjacent to public view corridors, where feasible. *(Imp 2.1, 16.11, 23.2)* | As discussed above, the Master Plan provided for the dedication of the Sunset View Park, which provides for public views of the ocean. The development criteria for the Lower Campus provides for protection of those views. Therefore, the proposed Master Plan Update Project would not conflict with this policy. |

## TABLE 3.5-1 (Continued)
## CONSISTENCY OF THE PROPOSED MASTER PLAN UPDATE PROJECT WITH AESTHETICS-RELATED GOALS AND POLICIES

| Goals and Policies | Consistency Analysis |
|---|---|
| *Goal NR 22: Maintain the intensity of development around Newport Bay to be consistent with the unique character and visual scale of Newport Beach.* | |
| NR 22.1: Continue to regulate the visual and physical mass of structures consistent with the unique character and visual scale of Newport Beach. *(Imp 2.1)* | For the visual evaluation, a consideration was made regarding whether the potential intensification of development on the Upper Campus would be inconsistent with the visual character and scale of the site. Without specific development proposals, only a general analysis is possible. The current character of the Upper Campus is one of dense development providing an urban atmosphere to the site. Intensification of the development on the Upper Campus would not substantially change the character provided that the height limitations in the development criteria are adhered to. Therefore, when considering the thresholds of significance, the proposed Master Plan Update Project would not result in a significant visual impact and would be consistent with the character and visual scale of the site. The Project would be consistent with the intent of this policy. |
| ***Land Use Element*** | |
| *Goal LU 1: A unique residential community with diverse coastal and upland neighborhoods, which values its colorful past, high quality of life, and community bonds, and balances the needs of residents, business, and visitors through the recognition that Newport Beach is primarily a residential community.* | |
| LU 1.6: Protect and, where feasible, enhance significant scenic and visual resources that include open space, mountains, canyons, ridges, ocean, and harbor from public vantage points. *(Imp 1.1)* | As noted, the General Plan identifies 2 coastal view corridors: (1) Newport Blvd. from Hospital Road/Westminster Avenue to Via Lido and (2) Superior Avenue from Hospital Road to West Coast Highway. There would be coastal views across the Lower Campus. Existing building height restrictions would continue to preserve these views. Therefore, the proposed Master Plan Update Project would not conflict with this policy. The development criteria in the PC Text also provide building envelopes, height restrictions, setbacks, and landscape requirements. |
| *Goal LU 5.5: Districts that provide for the manufacturing of goods and research, and development that are attractive, compatible with adjoining non-industrial uses, and well maintained.* | |
| LU 5.5.1: Require that buildings and properties be designed to ensure compatibility within and as interfaces between neighborhoods, districts, and corridors. *(Imp 2.1)* | The PC Text includes development standards pertaining to building heights, setbacks, and building envelopes. Implementation of the proposed Master Plan Update Project would be consistent with the PC Text and would not result in any significant aesthetic or visual impacts on adjacent properties. |
| *Goal LU 5.6: Neighborhoods, districts, and corridors containing a diversity of uses and buildings that are mutually compatible and enhance the quality of the City's environment.* | |
| LU 5.6-2: Require that new and renovated buildings be designed to avoid the use of styles, colors, and materials that unusually impact the design character and quality of their location such as abrupt changes in scale, building form, architectural style, and the use of surface materials that raise local temperatures, result in glare and excessive illumination of adjoining properties and open spaces, or adversely modify wind patterns. *(Imp 2.1)* | Any proposed structure that would deviate from the established development standards of the PC Text are subject to site-plan review. All other structures are deemed compatible with surrounding development and are therefore permitted on Hoag. |
| LU 5.6.3: Require that outdoor lighting be located and designed to prevent spillover onto adjoining properties or significantly increase the overall ambient illumination of their location. *(Imp 2.1)* | The PC Text and the Mitigation Program for Final EIR No. 142 and included in this SEIR requires lighting systems to be designed and maintained to conceal the light source and to minimize light spillage and glare to the adjacent residential uses. |

**TABLE 3.5-1 (Continued)**
**CONSISTENCY OF THE PROPOSED MASTER PLAN UPDATE PROJECT WITH AESTHETICS-RELATED GOALS AND POLICIES**

| Goals and Policies | Consistency Analysis |
|---|---|
| LU 5.6.4: Require that sites be planned and buildings designed in consideration of the property's topography, landforms, drainage patterns, natural vegetation, and relationship to the Bay and coastline, maintaining the environmental character that distinguishes Newport Beach. *(Imp 2.1, 8.1)* | As noted above, unless a proposed structure would deviate from the established development standards of the PC Text, structures are deemed to be consistent with the this land use policy and compatible with surrounding development. |

***Impact 3.5-4:*** ***No Impact.*** As identified in Table 3.5-1, the proposed Master Plan Update Project would not conflict with any goals or policies of the City of Newport Beach General Plan.

### 3.5.5 CUMULATIVE PROJECTS IMPACT ANALYSIS

Final EIR No. 142 did not identify any significant cumulative aesthetics impacts associated with the adoption of the *Hoag Hospital Master Plan.* It did identify, however, that the project would have a positive effect through the development of the linear and consolidated public view park along the northern perimeter of the Lower Campus. This provided the public with views of the ocean, Newport Bay, and Catalina Island which were not previously available.

The findings of cumulative impacts have not changed since Final EIR No. 142. The proposed Master Plan Update Project is located in an urbanized area. The development is consistent with the development in the surrounding developed area. When evaluating cumulative aesthetic impacts, a number of factors must be considered. For a cumulative aesthetic impact to occur, the proposed elements of the cumulative projects would need to be seen together or in proximity to each other. If the projects were not proximate to each other, the viewer would not perceive them in the same viewshed. Therefore, even though the related projects may be identified as changing the visual character of their project areas, since they are not proximate to Hoag, they would not contribute to a cumulative aesthetic impact. There are no other projects in the local vicinity that would contribute to a change in the visual character of the area. Therefore, the proposed Master Plan Update Project would not contribute to a cumulative aesthetic impact.

### 3.5.6 MITIGATION PROGRAM

The following measures were adopted as a part of Final EIR No. 142 and would apply to the proposed Master Plan Update Project. Mitigation measure numbering reflects that provided in Resolution No. 92-43 for certification of Final EIR No. 142. Minor modifications to the mitigation measures are proposed to reflect the current status of the Project; some mitigation measures in Final EIR No. 142 have been implemented and are no longer applicable. ~~Strikeout text~~ is used to show deleted wording and *italic text* is used to show wording that has been added. No additional mitigation is required as a part of the proposed Master Plan Update Project.

**Project Design Features**

The Master Plan Update Project does not propose any project design features related to visual resources and aesthetics.

## Standard Conditions and Requirements

SC 3.5-1 Lighting shall be in compliance with applicable standards of the Zoning Code. Exterior on-site lighting shall be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent sites or create a public nuisance. "Walpak" type fixtures are not permitted. Parking area lighting shall have zero cut-off fixtures and light standards shall not exceed 30 feet.

SC 3.5-2 The site shall not be excessively illuminated based on the luminance recommendations of the Illuminating Engineering Society of North America, or, if in the opinion of the Planning Director, the illumination creates an unacceptable negative impact on surrounding land uses or environmental resources. The Planning Director may order the dimming of light sources or other remediation upon finding that the site is excessively illuminated.

SC 3.5-3 Prior to the issuance of a building permit, the applicant shall prepare photometric study in conjunction with a final lighting plan for approval by the Planning Department.

SC 3.5-4 Prior to issuance of the certificate of occupancy or final of building permits, the applicant shall schedule an evening inspection by the Code and Water Quality Enforcement Division to confirm control of light and glare.

## Mitigation Measures

Final EIR No. 142 included several mitigation measures related to aesthetics. The adopted measures are presented below in two categories: (1) Mitigation Measures to Carry Forward and (2) Mitigation Measures No Longer Required. A rationale is provided for each measure in category 2.

### *Final EIR No. 142 Previously Adopted Mitigation Measures*

Mitigation Measures to Carry Forward

43. Prior to issuance of grading permits, the Project Sponsor shall ensure that a landscape and irrigation plan is prepared for each building/improvement within the overall Master Plan. This plan shall be prepared by a licensed landscape architect. The landscape plan shall integrate and phase the installation of landscaping with the proposed construction schedule. The plan shall be subject to review by the Parks, Beaches, and Recreation Department and approval by the Planning Department and Public Works Department.

45. Prior to issuance of a building permit, the Project Sponsor shall submit plans to the City Planning Department which illustrate that all mechanical equipment and trash areas will be screened from public streets, alleys and adjoining properties.

46. Prior to issuance of building permits, the Project Sponsor shall submit plans which illustrate that major mechanical equipment will not be located on the rooftop of any structure on the Lower Campus. Rather, such buildings will have clean rooftops. Minor rooftop equipment necessary for operating purposes will comply with all building height criteria, and shall be concealed and screened to blend into the building roof using materials compatible with building materials.

48. Prior to issuance of a building permit for any Lower Campus structure, the Project Sponsor shall prepare a study of each proposed building project to assure conformance with the EIR view impact analysis and the PCDP and District Regulations, to ensure that the visual impacts identified in the EIR are consistent with actual Master Plan development. This analysis shall be submitted to and approved by the City Planning Department.

Mitigation Measures No Longer Required

44. Prior to issuance of a building permit, the Project Sponsor shall submit plans to, and obtain the approval of plans from, the City Planning Department which detail the lighting system for all buildings and window systems for buildings on the western side of the Upper Campus. The systems shall be designed and maintained in such a manner as to conceal light sources and to minimize light spillage and glare to the adjacent residential areas. The plans shall be prepared and signed by a licensed electrical engineer, with a letter from the engineer stating that, in his or her opinion, these requirements have been met.

**Rationale:** This mitigation measure would be replaced by standard conditions (identified above) used by the City of Newport Beach. These standard conditions supersede Mitigation Measure 44.

116. The Project Sponsor shall pay 75 percent of the cost of planting thirty 24-inch ficus trees (or the equivalent) in the berm between the service road and Villa Balboa southerly of the tennis courts. Planting shall occur on Villa Balboa property.

**Rationale:** This mitigation measure was adopted as part of the certification of Final EIR No. 142 and has already been implemented. Therefore, this measure would no longer need to be tracked through mitigation monitoring.

123. The design of the critical care/surgery addition shall incorporate screening devices for the windows which face the Villa Balboa area for the purpose of providing privacy for residents, so long as these screening devices can be designed to meet the Hospital Building Code requirements regarding the provision of natural light to the facility.

**Rationale:** Mitigation Measure 123 required screening devices for the windows of critical care/surgery that faced the Villa Balboa area because it would have encroached into the minimum building setback. The critical care/surgery facility is not being implemented; therefore, this measure no longer applies. Should other uses be proposed in the location where the critical care/surgery facility would have been implemented, the site plan review process would identify the need for specific screening requirements. However, at the Master Plan level, this measure is no longer required.

### 3.5.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Final EIR No. 142 identified that the Master Plan Project would not result in significant aesthetic or visual impacts. The Final EIR found that shade and shadow effects would contribute to a significant unavoidable land use impact but that as an individual project effect, shade and shadow impacts were considered less than significant. This SEIR finds that the proposed Master Plan Update Project would not result in any significant visual impacts either prior to or after mitigation.