

County of Los Angeles

Re-Circulated
Draft Environmental Impact Report

NEPTUNE MARINA APARTMENTS AND
ANCHORAGE/WOODFIN SUITE
HOTEL AND TIMESHARE
RESORT PROJECT

Volume I

SCH#2007031114



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Prepared for:

County of Los Angeles
Department of Regional Planning

June 2009

Recirculated Draft Environmental Impact Report

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Volume I

State Clearinghouse No. 2007031114

Prepared for:

County of Los Angeles
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

Parcel 10R

Project R2006-03647

RCDPT200600008

RCUPT200600289

RENV200600217

RPAT200600013

RVART200600013

Parcel EE

Project R2006-03652

RCDPT200600009

RCUPT200600290

RENV200700024

RPAT200600014

RVART200600014

Parcel 9U North

Project TR067861

RCDPT200600007

RCUPT200600288

RENV200600216

RPKPT200600020

RVART200600012

TR067861

Parcel 9U South

Project R2006-03643

RCDPT200600006

Basin Adjacent to Parcel 9U

Project R2006-03644

RPPT200602191

June 2009

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1.0 INTRODUCTION

This introduction is included to provide the reader with an overview of (1) requirements for recirculation of an Environmental Impact Report (EIR); (2) the scope and content of the Recirculated EIR prepared by the County of Los Angeles for the proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project; and (3) the Recirculated EIR review process. The analysis contained in this document supplements the Draft EIR (State Clearinghouse No. 2007031114) for the Neptune Marina Apartments, Anchorage/Woodfin Suite Hotel, and Timeshare Resort Project

The County of Los Angeles distributed a Draft EIR for **The Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project** for public review and comment from **September 8, 2008, to October 22, 2008**. An initial public hearing on the project and the Draft EIR was held before the Los Angeles County Regional Planning Commission (RPC) on October 29, 2008. At the conclusion of that hearing, the RPC continued the public hearing to November 5, 2008, in order to schedule a field trip to the project site and nearby parcels and to allow for a local public hearing in Marina del Rey. The RPC scheduled its field trip and continued public hearing in Marina del Rey for November 22, 2008. On November 12, 2008, however, the applicants for the above-mentioned project requested the RPC to take its November 22nd continued public hearing and field trip in Marina del Rey off its hearing calendar. This request was based on the recommendation of County staff to revise and recirculate certain sections of the Draft EIR in response to new information that was not previously analyzed and which could have potential impacts not addressed in the original Draft EIR. The RPC honored the applicants' request in this regard and took the continued public hearing and field trip in Marina del Rey off its hearing calendar, pending the County's revision and recirculation of certain Draft EIR sections.

1.1 REQUIREMENTS FOR RECIRCULATION OF AN EIR

This Draft EIR containing sections for recirculation has been prepared in accordance with the California Environmental Quality Act (CEQA) and the State Guidelines for the implementation of CEQA. The requirements for recirculation of an EIR prior to certification, defined by Section 15088.5 of the *State CEQA Guidelines*, which provides as follows:

- (a) A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the Draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the

project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
 2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
 3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
 4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.
- (b) Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.
- (c) If the revision is limited to a few chapters or portions of the EIR, the lead agency need only recirculate the chapters or portions that have been modified. (*Emphasis added.*)**
- (d) Recirculation of an EIR requires notice pursuant to Section 15087, and consultation pursuant to Section 15086.
- (e) A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record.

As described below in **Section 1.2, Scope, Content and Format of the Recirculated EIR**, new information regarding the design and alignment of needed sewer infrastructure became known subsequent to the initial circulation of the Draft EIR in September 2008. In order to provide the public with a meaningful opportunity to comment upon potential impacts related to the sewer infrastructure, as well as to respond to certain issues raised at the first public hearing on the project (discussed below), the County decided to revise and to recirculate for additional public review certain sections of the Draft EIR for the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project.

1.2 SCOPE AND CONTENT OF THE RECIRCULATED EIR

This Recirculated EIR considers in detail potential cumulative impacts of the proposed project and the Venice Pumping Plant Dual Force Main Project. This related project is proposed by the City of Los Angeles and is outside the control of Los Angeles County. One of the three proposed alternative alignments for the new sewer line would run beneath Via Marina adjacent to the proposed project site; however, no final decision on the alignment has been made at the time of this writing. Also, the timing of the implementation of this related project is uncertain. Nonetheless, to provide a conservative analysis,

this Recirculated EIR assumes that the Via Marina alternative will be selected and that construction of the related project and the proposed project would overlap.

The Department of Public Works initiated review and funding for sewer pipeline upgrades in Marina del Rey on September 9, 2008, before the County of Los Angeles Board of Supervisors. Subsequently, the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort project engineers met with the Sewer Maintenance Division to design a sewer infrastructure that would both meet the needs of an upgraded sewer system as well as accommodate the proposed project analyzed in this EIR. This has resulted in a different alignment for the new sewer lines needed to service the new development on Parcel 10R. The details of this proposed sewer infrastructure and an analysis of potential impacts are provided in this Recirculated Draft EIR.

At the same time, details of the City of Los Angeles proposed Venice Pumping Plant Dual Force Main project became known; there is the potential for impacts associated with that project to overlap with construction impacts for the proposed project, resulting in potentially significant cumulative impacts. Therefore, it was decided that the potential impacts from this project also warranted analysis in this recirculated document.

Because of the potential for cumulative impacts with the Venice Pumping Plant Dual Force Main Project and the potential for new or increased impacts associated with the proposed project-serving sewer lines, the County, as lead agency, decided to conduct and circulate for public comment this Recirculated EIR.

The following seven sections of the Draft EIR have been revised for this recirculation:

3.0 Project Description, to include a detailed description of the sewer infrastructure improvement and alignment, to provide an update to the construction schedules, and to provide a summary for compliance with applicable provisions of the County of Los Angeles' Green Building Ordinance, which recently took effect on January 1, 2009.

5.2 Noise, to update the analysis of construction noise impacts, including noise along haul route and impacts to existing residential areas, and discussion of the Venice Dual Force Main and The Shores Apartments (on Marina del Rey Parcels 100 and 101) projects in the cumulative impact discussion.

5.4 Air Quality, to update the construction and cumulative impacts discussions to include the Venice Dual Force Main project, and to update the greenhouse gas/climate change analysis.

5.6 Visual Quality, to augment the discussion of the shade-shadow analysis as requested by the RPC, and to augment the discussion of potential impacts from distant vantage points.

5.7 Traffic/Access, to address construction traffic impacts analysis and discussion.

5.8 Sewer Service, to revise generation rate calculations using recent information provided by the City of Los Angeles, and to describe the new proposed sewer alignment.

5.10 Solid Waste Service, to address in greater detail the potential impacts to a public landfill caused by the excess cut materials from excavation.

Of these topics, the following areas were found to be significant after implementation of feasible mitigation measures:

- Short-term construction noise and vibration impacts;
- Short-term cumulative construction noise and vibration impacts;
- Short-term construction air quality impacts;
- Cumulative construction air quality impacts;
- Visual resource impacts, cumulative traffic impacts;
- Project-specific and cumulative solid waste impacts; and
- Cumulative population and housing impacts.

1.3 RECIRCULATED EIR REVIEW PROCESS

Recirculation of the portions of the Draft EIR noted below is being made in accordance with the requirements of *State CEQA Guidelines* Section 15088.5. Recirculation will occur for a period of 45 days, from June 11, 2009, to July 27, 2009.

During this public review period, written comments concerning the adequacy of the document may be submitted by any interested person and/or affected agency to the County of Los Angeles, Department of Regional Planning, Special Projects Section, Attention: Michael Tripp, Room 1362, 320 West Temple Street, Los Angeles, California 90012.

The County of Los Angeles requests that commenters limit comments to only the revised sections provided in this document. Comments received on the Draft EIR during the previous comment period will be responded to in the Final EIR and need not be re-submitted on the revised sections. The County intends to respond only to comments submitted during the recirculation period that relate to portions of the EIR that are revised and included in this recirculation.

Following the public review periods for the Draft EIR and the recirculated Draft EIR sections, written responses will be prepared for comments submitted either in writing during the public review periods or orally at public hearings held during the process, provided that such comments raise environmental issues. At least 10 days prior to a hearing to certify the Final EIR, proposed responses to comments from public agencies on the Draft EIR will be sent to those agencies. The Final EIR will be submitted to the RPC and subsequently to the Board of Supervisors, which will determine whether to certify the document as reflecting the County's independent judgment and having been properly prepared in accordance with CEQA. No aspect of the proposed project will be approved until after the Final EIR is certified.

3.0 PROJECT DESCRIPTION

PURPOSE

The purpose of the Project Description required by the California Environmental Quality Act (CEQA) is to describe the project in a way that will be meaningful to the public, reviewing agencies and decision makers. The State CEQA Guidelines state that the Project Description need not be exhaustive but should supply the detail needed for the evaluation and review of potential environmental impacts. The State CEQA Guidelines require that a Project Description address the following items: (1) the precise location and boundaries of the project; (2) a statement of project objectives; (3) a general description of the project's characteristics; and (4) a listing of required project approvals and decision-making agencies.

This section includes a description of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project. The project occurs on Marina del Rey Parcels 10R, FF, and 9U. The project includes five project components: (1) Neptune Marina Parcel 10R; (2) Neptune Marina Parcel FF; (3) the Woodfin Suite Hotel/Timeshare Resort; (4) a restored public wetland and upland park project on the southern portion of Parcel 9U; and (5) a public-serving anchorage within Marina del Rey Basin B adjoining the Parcel 10R and 9U bulkhead, containing approximately 542 lineal feet of dock space and supporting between approximately seven and 11 vessels (depending on the boats' relative sizes) inclusive of an area for dinghy berthing at the northerly end of the anchorage. It is important to note that project Components 4 and 5 are integral to the LCP amendment to change the designated open space land use on Neptune Marina Parcel FF, which is currently developed as an underutilized surface parking lot, to a residential land use. To better accommodate the County zoning code requirements, this Project Description includes separate descriptions of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project and each of the five project components.

3.1 OVERVIEW

As part of the County of Los Angeles' original construction of Marina del Rey, the County divided Marina del Rey's land and water areas into a number of parcels with a specific number and lettering scheme. The proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project occurs on three parcels of land respectively designated as Marina del Rey Parcels 10R, FF, and Parcel 9U. The project is subject to the Marina del Rey Specific Plan, which is a component of the certified Marina del Rey Local Coastal Program (LCP). The LCP consists of the Marina del Rey Land Use Plan (LUP), Local Implementation Plan (LIP) and Design Guidelines that are an appendix to the LUP. The Marina del Rey certified LCP and this EIR also use the parcel numbering and lettering system that is described above.

The Marina del Rey LCP and LUP were originally certified by the California Coastal Commission (CCC) in October 11, 1984. The current effective Marina del Rey LCP/LUP and Specific Plan involved a major amendment to the original LCP, which was certified by the CCC on February 8, 1996.

Section 15265 of the *State CEQA Guidelines* exempts local agencies from the CEQA requirements to inform the public and decisions makers about the environmental effects, identify avoidance of and prevent significant environmental damage, and disclose the reasons for approval when that local agency is adopting a local coastal program. This exemption is provided because the responsibility for environmental analysis is shifted to the CCC's certified regulatory plan for its local coastal program certification program, which allows written environmental information as the functional equivalent of an environmental impact report under the provisions of the Public Resources Code Section 21080.5. The CCC must find that the LUP conforms to the Coastal Act, contains public access components, and is consistent with past actions.

The County of Los Angeles and the CCC both held extensive public hearings regarding the major amendment to the LCP preceding the CCC's ultimate certification of the major LCP amendment in 1996. These public hearings included discussion of the environmental effects that the land use changes contained within the amended LCP would cause.

During the public hearings for the 1996 major amendment to the LCP, the County and the CCC considered changes that would result from modified development standards allowing building heights up to 225 feet. Buildings of up to 225 feet (the maximum height allowed in the Marina under the certified LCP) are allowed on select parcels fronting on Marina "loop roads" Via Marina and Admiralty Way, but only when the proposed building height is accompanied with the provision of view corridors that guarantee views to the harbor. This requirement is consistent with Coastal Act Policy 30251, which requires that coastal development be sited in a manner that shall protect views of the coastal waters. Consistent with this policy, all development on waterfront parcels, regardless of the height of buildings developed thereon, shall provide a minimum unobstructed view corridor of 20 percent of the parcels' waterfront to the boat basins. The potential impact of taller buildings causing sun shadow effects or affecting the wind patterns of the Marina are required to be evaluated for any potentially negative impact prior to such taller buildings being constructed.

The certified LCP sets forth a key urban design principal for the Marina calling for the implementation of a "modified bowl concept," consisting of a skyline of taller buildings around the outer and northern edges of the Marina, with lower height buildings on the mole roads, with limited exception. Implementation of the concept is intended to enhance the Marina's image and to guarantee that adequate sunlight and wind circulation continues over the Marina water basin (see Los Angeles County Code

22.46.1040). To implement the modified bowl concept, the LCP provides for building heights up to a maximum of 225 feet on select parcels when expanded view corridors comprising at least 40 percent of the parcels' water frontage are provided. The tradeoff for the additional building height (i.e., maximum of 225 feet) is the provision of larger public view corridors over the parcels (i.e., view corridor comprising no less than 40 percent of the parcel's water frontage).

Hotels within the amended Marina LCP are permitted a height limit of 225 feet (Marina del Rey Land Use Plan page 8-11). Additionally, height design flexibility is provided for seaward parcels along Via Marina, including the subject Parcel 9U, allowing for a maximum height of 225 feet when a 40 percent view corridor is provided (Policy 8b of the Marina del Rey LUP page 9-6). Parcel 9U is included in the Tahiti Development Zone and has been designated as "Hotel-Waterfront Overlay Zone" in the Marina Land Use Plan (Marina del Rey LUP Map 10 and page 8-15). Specified development potential in this development zone is 288 hotel rooms within the permitted hotel use on Parcel 9U.

In 1981, a hotel was previously approved by the CCC for development on the subject Parcel 9U (the "Marina Plaza Hotel"; see CCC Case No. A-207-79). The Marina Plaza Hotel was approved by the CCC with 300 guest rooms in nine stories and an assortment of patron- and visitor-serving accessory uses, including restaurants, a bar, a coffee shop, banquet facilities and meeting rooms, all over two stories of subterranean parking. Some site grading was completed and two concrete piles were installed by the developer of the Marina Plaza Hotel. The developer ultimately abandoned the Marina Plaza Hotel development on Parcel 9U due to lack of finances.

A review of the CCC-approved site plan contained in CCC case file A-207-79 indicates that the nine-story Marina Plaza Hotel structure was spread over almost the entire parcel, providing only a small public view corridor to the water from Via Marina. While the subject nineteen-story hotel/timeshare resort structure being proposed for Parcel 9U by Woodfin Suite Hotels is taller than the nine-story Marina Plaza Hotel previously approved for the site, the Woodfin project implements the LCP's modified bowl urban design principal. As described above, consistent with the certified LCP's modified bowl concept, the Woodfin project provides an expansive 40 percent view corridor over the Parcel 9U as a trade-off for developing a taller building with a significantly smaller building footprint on the parcel.

Within the existing Marina, development of some kind has occurred on all leasehold parcels. This existing development cycle is referred to as Phase I development, which is now complete. Recycling, intensification, or conversion of these initial uses on leased parcels is referred to as Phase II development, which will be permitted, subject to the individual leaseholders demonstrating consistency with the policies of this LCP.

High-rise development generally will be permitted in appropriate locations on the periphery of the Marina, provided that such development will be sited such as to allow for adequate passage of prevailing offshore winds into the Marina waters.

All development of coastal housing shall be contingent upon meeting all applicable policies and development standards of the certified LCP, including but not limited to adequate parking, view corridors, public access to the shoreline, provision of adequate traffic capacity, and the provision of new usable public recreation, open space, and visitor serving recreational uses.

3.1.1 Project Location

The proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project site (**Figure 3.0-1, Regional and Site Location**) is located in the western portion of the Marina del Rey small-craft harbor. Specifically, the project site totals 13.03 landside acres and 4.68 waterside or submerged acres.

Parcel 10R is a rotated L-shaped site that wraps partially around "Basin B" of the Marina del Rey small-craft harbor. The parcel consists of a total of 7.32 landside acres and 4.68 waterside or submerged acres. The perimeter of the site is bordered to the west by Via Marina and to the north by Marquesas Way.

Marina del Rey Parcel 9U forms the southern boundary of the landside portion of the Parcel 10R site, while Marina del Rey Parcel 12R forms the easternmost boundary on the landside portion of the parcel. The site perimeter extends into the waters of Basin B to the south and east. The proposed public-serving boat anchorage would adjoin a portion of the Parcel 10R bulkhead, within Marina Basin B.

Parcel FF is a rectangular site that occurs adjacent to the southwest corner of "Basin C" of the Marina del Rey small-craft harbor. The parcel consists of a total of 2.05 landside acres and borders the waterfront along approximately 200 linear feet of the northern boundary of the site. The perimeter of the site is bordered to the west by Via Marina and to the south by Marquesas Way. Its easternmost boundary is formed by Marina del Rey Parcel 13R. Marina del Rey Parcel 15U and the waters of Basin C comprise the northern boundary of Parcel FF.

Parcel 9U consists of 3.66 landside acres and is bound by Marina del Rey Parcel 10R to the north, Via Marina to the west, Basin B of Marina del Rey to the east and Tahiti Way to the south. The Woodfin Suite Hotel and Timeshare Resort Project would be confined to the northernmost 2.20 acres of Parcel 9U. The proposed restored public wetland and upland park would be confined to the approximately 1.46 southerly-most acres of Parcel 9U.

3.1.2 Project Objectives

Existing uses in Marina del Rey were developed in the early to mid-1960s around the time the small-craft harbor was initially dedicated. This early construction is considered or termed “Phase I” marina development as identified in the Marina del Rey LUP. Existing residential uses, in most locations, are now over 40 years of age. These aging improvements lack contemporary design elements and tenant amenities necessary to serve current water-oriented residential lifestyles, including state-of-the-art wiring for high-speed telecommunications and electronics, contemporary kitchens and modern climate control systems. Similarly, the existing anchorage docks, which are dilapidated, were originally constructed to accommodate the boating community of the 1960s. The existing anchorage lacks contemporary design features and amenities such as Americans with Disability Act (ADA) compliant boat spaces, sanitary sewage pump-out stations, wider space berths, increased storage, state-of-the-art wiring for high-speed telecommunications and electronics that are necessary to serve the current recreational boating community.

As a policy, the Marina del Rey certified LCP specifically encourages the recycling and intensification (within defined density limits) of the existing Phase I development. Consistent with the LCP for Marina del Rey and the County’s broader public policy goals and objectives, proposed redevelopment uses on the project site are intended to meet the following objectives:

- Create an integrated, self-contained recreational marina boating community with contemporary on-water facilities.
- Enhance habitat value by restoring the existing degraded wetland on Parcel 9U.
- Create a public park in a location that provides convenient parking and public access and expansive and higher quality views of the basin and allows integration with other public uses and amenities.
- Improve public coastal recreational opportunities.
- Provide improved public pedestrian access to the waterfront.
- Provide increased coastal residential opportunities with designs that emphasize coastal views, consistent with the residential build-out framework for Marina del Rey specified in the certified LCP.
- Provide for additional needed affordable housing in or near the Coastal Zone, in compliance with the Mello Act.
- Develop an apartment project of sufficient density to support the construction of on-site replacement and inclusionary affordable unit in compliance with the County’s Mello Act policy.
- Replace an underutilized parking lot with high quality residential development and facilitate the future relocation of public parking in another area of the Marina which will better serve the public.

- Develop a hotel/time share resort proximate to the water as additional high-value visitor-serving uses in the Coastal Zone in compliance with the Coastal Act.
- Replace existing non-ADA compliant boating facilities with new, state-of-the-art facilities.
- Replace existing aging housing with new, high-quality housing.
- Restore and enhance the existing artificially created wetland by creating a wetland park.
- Generate additional revenues to the County in the form of increase ground rents, fees and tax revenues.

3.1.3 Project Characteristics

3.1.3.1 Overview Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

Figure 3.0-2, Site Plan: Neptune Marina Project illustrates a conceptual site plan for the proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project. The Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project consists of five components that include (1) Neptune Marina Parcel 10R; (2) Neptune Marina Parcel FF; (3) the Woodfin Suite Hotel and Timeshare Resort (on northerly portion of Parcel 9U); (4) a restored public wetland and upland park project on the southern portion of Parcel 9U; and (5) a public-serving boat anchorage proximal to Parcel 9U within Marina del Rey Basin B. It is important to note that Components 4 and 5 are associated with and offset the loss of open space-designated land that would result from development of Neptune Marina Parcel FF (Component 2).

Component 1 includes the landside development of **Parcel 10R** and waterside development in adjacent Basin B and is referred to as "**Neptune Marina Parcel 10R.**" Landside development consists of a proposed 400-unit, residential apartment community consisting of three structures and a waterfront public pedestrian promenade. The height of two of the three buildings: Buildings 1 and 2, which front on the Marquesas Way mole road, would not exceed 55 feet, while Building 3, which fronts on Via Marina, would not exceed 60 feet (exclusive of appurtenant, screened roof-top equipment) when measured per County standards. These structures would front Marquesas Way and Via Marina and are proposed to be located generally southeast of this intersection. The project would also include an approximately 0.25-mile-long (1,437 linear feet) public waterfront pedestrian promenade. Construction staging would occur on site and on Parcel FF with authorization from the County.

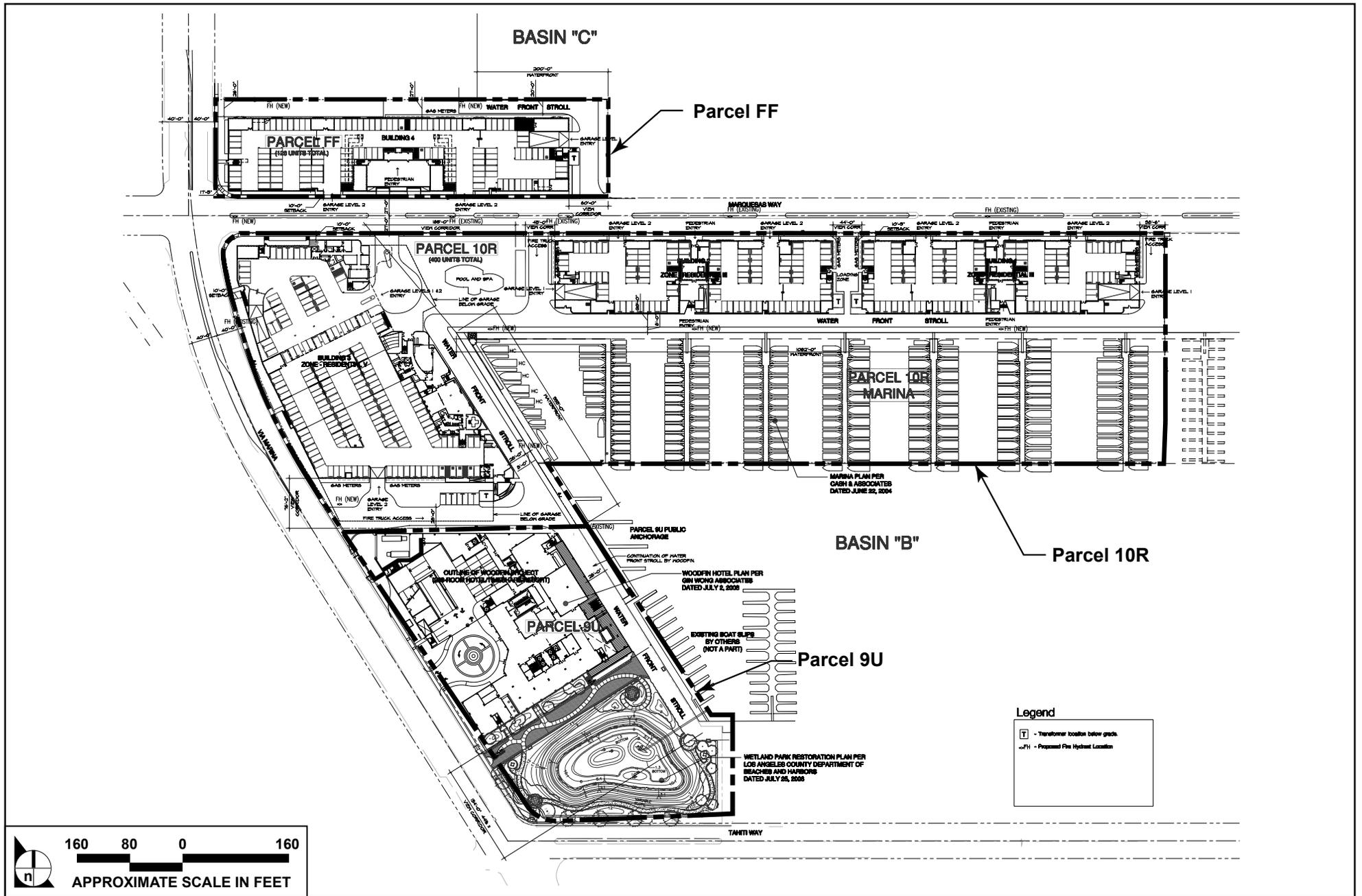


FIGURE 3.0-2

Site Plan: Neptune Marina Project

To authorize development of the Neptune Marina Parcel 10R project, the County of Los Angeles proposes an amendment to the Marina del Rey LUP and Specific Plan to allow the density allowed by the current Residential III and Residential V land use designations for Parcel 10R to be averaged over the entire parcel. This amendment would allow the proposed project to have an aesthetic and development profile that is consistent across the parcel and with an adjoining apartment project currently under construction on Marina Parcel 12 to the east.

Parcel 10R is located in LCP Development Zone 3 (Marquesas), which has a current residential development potential of three (3) additional dwelling units. Therefore, to facilitate development of this project, the County proposes an LCP amendment to authorize the transfer of 261 excess (or “unused”) dwelling unit credits from the southern abutting Development Zone 2 (Tahiti Development Zone) into Development Zone 3. With adoption of this LCP amendment, there will be sufficient available dwelling unit credits within the subject Development Zone 3 to accommodate the planned development of 400 rental dwelling units on Parcel 10R.

Additional approvals are necessary for the Neptune Marina Parcel 10R component of the project. A Coastal Development Permit is required for all new development to ensure that individual projects conform to the certified LCP. A Conditional Use Permit (for site grading, export of earth and parking for boater-related uses) and a Variance (to allow for enhanced signage and a reduced yard adjacent to the waterfront pedestrian promenade) are also required in order to implement this component.

The waterside portion of Parcel 10R in Basin B would be comprised of a small craft anchorage consisting of 174 boat spaces that would replace an existing marina containing 198 boat spaces, which has deteriorated over time. The new anchorage would provide users water and electrical service and a sewage pump out station. A total of 161 of the proposed private boat spaces associated with the Neptune Marina Parcel 10R would be wide enough to accommodate modern boat designs and boats up to 40 feet. Larger boats could be accommodated at 13 proposed end-tie spaces (161 + 13 = 174 total marina spaces). The reduction in 24 boat spaces between the existing 198-space marina and proposed 174-space marina results from achieving compliance with California Department of Boating and Waterways and ADA standards, and the increased size of the proposed slips. For the Parcel 10R marina component, the County’s “Approval in Concept” is required prior to making application to the California Coastal Commission for a separate Coastal Development Permit authorizing this proposed waterside development.

Component 2 includes the development of Parcel FF and has been defined as "Neptune Marina Parcel FF." Development consists of a proposed 126-unit, residential apartment community contained within a single structure and a waterfront public pedestrian promenade. The height of the proposed building (Building 4) would not exceed 55 feet (exclusive of appurtenant, screened rooftop equipment) when measured per County standards. This structure would front on Marquesas Way and be located generally northeast of this intersection. Construction staging would occur on site and on Parcel 10R. A total of 242 parking spaces would be provided in a structured parking garage below the building. This project component would also include construction of a 200-foot-long public Waterfront Stroll Promenade. Development of the Neptune Marina Project Parcel FF will require the removal of an existing, underutilized 2-acre surface parking lot with ~~206-201~~ spaces. This project applicant, under its to-be-executed lease extension agreement with the County, is will be required under the lease agreement to replace or bond for the replacement of one-half of the removed parking spaces, at a superior public/visitor-serving location within the Marina, prior to occupancy of this residential component.

~~Development of Parcel FF with residential use, as proposed, will preclude the potential future development of a public park on the parcel, which could have occurred pursuant to the parcel's current Open Space land use designation. It should be noted there is no evidence that, absent the current development proposal, a park would, in fact, be developed on Parcel FF in the future. Parcel FF has for many years been developed with an underutilized surface parking lot (identified as an "overflow Parking Lot 12" in the certified LCP). Parking Lot 12's historic underutilization by the public has been thoroughly analyzed and is well documented. A 2004 Parking Utilization Study by traffic engineering firm Crain & Associates of Southern California (attached as **Appendix 5.7** to this DEIR), based upon surveys conducted by Crain over the summer weekends of June 26-27, July 17-18 and July 24-25, 2004, found the public's use of Lot 12 to be minimal. The Crain report notes that the majority of the few vehicles accessing the lot were observed to be associated with residential parking needs for the adjacent apartments (apartments that are underserved by parking due to having been constructed in the 1960s, when the county's residential parking requirements were less stringent than today's parking requirements) as opposed to serving the recreating public.~~

Crain's 2004 findings regarding Lot 12's underutilization by the public are corroborated by the more recent findings of a comprehensive March 2009 report titled "Right-Sizing Parking Study for the Public Parking Lots in Marina del Rey, California," prepared for the County Department of Beaches & Harbors by traffic engineering firm Raju Associates, Inc. ("Right-Sizing Study," attached as **Appendix 5.7** to this DEIR). Based on parking demand surveys of each of the Marina's 13 public parking lots conducted by Raju Associates during the busiest summer weekends, holidays (Memorial Day, Fourth of July and Labor Day), and special event days in the Marina (i.e., the Halibut Derby and Boat Parade) of 2005 and 2007, the

Right-Sizing Study finds that each of the Marina's public parking lots "are greatly underutilized to varying degrees almost throughout the year, except for a few holidays and pre-holiday weekend days, even when the gate arms are up and no parking fee is charged" (Right-Sizing Study, Executive Summary, Page 1). Regarding Lot 12, the Right-Sizing Study concludes:

...[I]n the past few years, this overflow lot has not been used much by the general public for recreational purposes but has been used mostly for construction staging and by construction vehicles during construction [of a nearby apartment project]. No public demand has been noticed in this lot...This lot is planned to be removed from the list of public parking lots in the future pending a Plan Amendment is by the CCC (Right-Sizing Study, Page 15).

Lot 12's underutilization by the public is explained by the lot's relative isolation from visitor or recreational attractions in the Marina or surrounding vicinity. As Crain explains in its conclusion to its study:

Based on our data, observations, and analyses, it is our conclusion that Parking Lot 12 does not well serve the public parking function for which it was initially intended. The lack of public parking use of Lot 12 is perhaps best explained by the LCP's reference to Lot 12 as "overflow" parking for the Pierview Café...Once a popular restaurant located across Marquesas Way from Lot 12 on Parcel 10R, the Pierview Café went out of business some years ago and the structure was converted to storage use related to the existing Neptune Marina apartments on Parcel 10R. Thus, patron "overflow" parking for that establishment is no longer needed at Lot 12.

Our observations and analyses indicate that the Lot 12 location within the Marina is not conducive to its use as a public parking facility. The lot is not directly adjacent to any public beach within the Marina and it is located quite far from the Pacific Ocean beaches. Moreover, the western side of Marina del Rey, particularly south of Panay Way, is primarily a residential community, and there is little public-related or visitor-serving activity that occurs in this area. This lack of marine or visitor-related parking use on Lot 12 is contrasted by the primary use of the lot by residents and visitors of the nearby and adjacent apartment developments. Most of the vehicles currently using the Lot 12 facilities are overflow parking from these developments, either due to convenience or lack of adequate on-site parking for the individual developments. However, this amount of parking is not significant, and overall, Lot 12 is inadequately utilized, with a maximum parking occupancy of 15 percent during the

two weekends surveyed. (It should be noted that as the Lot 12-adjacent Parcels 10R, 12 and 15 are redeveloped with new apartment and anchorage facilities, the parking facilities for these projects will be significantly upgraded and the amount of on-site parking increased to be consistent with current County Code parking requirements. The additional on-site parking supplies for these developments will further reduce the parking used of Lot 12, as persons who currently utilize this lot as overflow parking for the currently inadequate parking supplies at the adjacent residential developments will relocate to the free guest parking facilities provided in these new apartment and marina projects.) (Crain's 2004 Parking Utilization Study, Page 4)

In its April 23, 2009 Adopted Revised Findings to support the Commission's January 9, 2008 approval of the Los Angeles County's Marina del Rey Periodic LCP Review ("Revised Findings Report"), the findings and recommendations of which the CCC moved to adopt their report, the staff of the CCC expressly acknowledges that Lot 12's (Parcel FF) relative isolation from key visitor/recreational attractions may lead to its underutilization by the public, writing:

The LCP requires that public parking lots be conveniently located near key visitor attractions with adequate location signage...However, there are a few public parking lots that the County provides that are not located adjacent to key visitor attractions and may be underutilized due to their location. Parcels FF and OT are examples of such parking lots...The nearest key visitor-serving or recreational facilities [to Parcel FF] are Marina Beach and the North Jetty, both located over 1,000 feet of the parking lot. The closest recreational facility is the promenade, which runs along a portion of the parking lot. Although the promenade is a significant recreational facility, people generally access the promenade in other areas and do not rely on this parking lot. (Revised Findings Report, Page 137; this page is attached as **Appendix 3.0** to this DEIR).

Development of Parcel FF with residential use, as proposed, will preclude the potential future development of a public park on the parcel, which could have occurred pursuant to the parcel's current Open Space land use designation. It should be noted there is no evidence that, absent the current development proposal, a park would, in fact, be developed on Parcel FF in the future.

Neither the County nor the private development community has any plans to develop Parcel FF for the permitted park use. To the contrary, Section A.2 of the LUP (page 2-5), under the "Potential Conversion of Public Parking Lots" subsection, expressly acknowledges that Parcel FF is underutilized by the public and is thus being contemplated for conversion to residential use. Therefore, the applicant is proposing to

develop a portion of the adjoining Parcel 9U with a public park to offset the loss of Open Space designated land and potential future public park, in conjunction with the construction of a public anchorage within Marina del Rey Basin B. The applicant will also offset the loss of the existing underutilized parking lot on Parcel FF through the lease agreement by making a financial contribution toward the construction of replacement parking at another site in the Marina designated by the County.

As described in greater detail in **Section 5.15, Parks and Recreation**, the discretionary project approvals for the Neptune Marina Parcel FF project include an LCP amendment request by the County of Los Angeles to change the current Open Space designation of Parcel FF to Residential V (1.38-acre “non-mole” portion) and “Residential III” (0.67-acre “mole” portion). To offset the loss of designated Open Space, the applicant proposes to relocate the potential future public park space contemplated in the LCP for development on Parcel FF to the southerly portion of Parcel 9U. Legacy Partners and Woodfin Suite Hotels would split the cost of developing a 1.46-acre public park inclusive of a 0.47-acre restored wetland and 0.99-acre upland buffer on the southerly portion of Parcel 9U. Without this financial commitment from the project applicants, the park would not be developed, as the County would be unable to devote the financial resources to this environmental amenity.

Parking Policy No. 12 of Chapter 2 of the LUP (page 2-8) states that public parking spaces lost due to the conversion of parking lots to public park use (by extrapolation from the proposed construction of the restored wetland and upland park) ~~will~~ shall be replaced elsewhere in the Marina on a 0.5:1 (50 percent) basis. Although the parking lot on Parcel FF would be replaced with residential use, the County has determined Parking Policy No. 12 applies in this case. Furthermore, Specific Plan Sections 22.46.1250.D and 22.46.1330.D provide that the displaced parking spaces must be replaced within the Marina before the development which displaces it may commence (i.e., occupancy of the apartment building). For this reason, the discretionary project approvals for the Parcel FF component of the project includes a proposed amendment to the LCP to modify the LUP and Specific Plan to allow deferral of construction of the ~~103~~ 101 “replacement” parking spaces (i.e., 50 percent of the existing ~~206-201~~ spaces) required as a condition of the proposed development of Parcel FF with residential use until such time as construction of such replacement parking spaces can be provided for by the County at an alternate location in the Marina more proximate to recreational or visitor-serving uses. This proposed LCP amendment ~~will~~ also requests authorization to allow occupancy of the new Parcel FF apartment building prior to construction of replacement parking spaces elsewhere in the Marina. Legacy Partners will deposit funds sufficient to construct the replacement parking with the County prior to issuance of a building permit. ~~As~~ Because, as detailed above, the current parking lot is Lot 12 continues to be heavily underutilized by the public, no short-term parking impacts are anticipated. In relation to the proposed development of Parcel FF, the

County is also proposing to amend the LCP to:

- Authorize the transfer of 14 development units from abutting Development Zone-2 (Tahiti) into the subject Development Zone-3 (Marquesas) and 112 development units from the proximate Development Zone-1 (Bora Bora Development Zone) into the subject Development Zone-3 (i.e., 14 units transferred from DZ 2 + 112 units transferred from DZ 1 = 126 units on subject Parcel FF). With approval of this development unit transfer, there will be sufficient dwelling unit credits within the subject Marquesas Development Zone to accommodate the planned development of 126 rental dwelling units on Parcel FF;
- Change the Height Category on Parcel FF from “Height Category 1” (maximum building height of 25 feet) to “Height Category 3” (which allows for 45-foot building heights when a 20 percent view corridor is provided, ranging to 75 feet maximum when a 40 percent view corridor is provided). The proposed 55-foot building height would be consistent with the proposed Height Category 3 designation because the applicant is providing a view corridor comprising 26.7 percent of the parcel’s water frontage ; and
- As for Parcel 10R, “blend” residential densities over Parcel FF without respect to the 35 dwelling units/acre and 75 dwelling units/acre density development standards prescribed in the LCP for the proposed Residential III and Residential V land use categories. Total site density will not exceed the LCP-prescribed 126 dwelling units for Parcel FF, but the units will be more evenly distributed between the R-V (non-mole portion) and R-III (mole portion) designated areas of the parcel, allowing for a more uniform and attractive building massing scheme and development.

Related discretionary approvals for the Neptune Marina Parcel FF component include a Coastal Development Permit (necessary for all new development in the coastal zone), a Conditional Use Permit (for site grading and export of earth) and a Variance (to allow for enhanced signage and a reduced yard adjacent to the waterfront pedestrian promenade) in order to implement this component.

Although the proposed transfer of 387 “excess” residential development credits into the subject Marquesas Development Zone from the adjoining and nearby Tahiti and Bora Bora Development Zones, as outlined above for Components 1 and 2, may be considered as an intensifying the Marquesas Development Zone, it is important to note that precedent exists in Marina del Rey for such inter-development zone residential development credit transfers. In certifying a similar LCP amendment in County Case No. 98-172-4 (Marina del Rey Parcel 20; developer Goldrich & Kest), the County and Coastal Commission found that the transfer of 97 unused residential development units from the Bora Bora Development Zone into the more distant Panay Development Zone on Via Marina was appropriate because the traffic impacts associated with the unit transfer were not significant. As with the Parcel 20 LCP amendment, a traffic analysis has been prepared for this project which has determined that the traffic and circulation impacts of the proposed inter-development zone transfer of excess development units are insignificant.

Component 3 includes development of the northerly approximately 2.20 acres of Parcel 9U and is referred to as the “**Woodfin Suite Hotel and Timeshare Resort.**” This project component consists of a 19-story hotel structure with 288 hotel and timeshare suites consisting of a minimum of 152 conventional hotel suites and 136 timeshare suites, meeting rooms, a restaurant and bar/lounge, a spa/fitness center (including an outdoor pool), and associated hotel operations space, such as the lobby, hallways, elevator shafts, mechanical rooms, offices, and laundry, maintenance and custodial facilities. The building would also feature an outdoor terrace and a large third floor deck with a pool, both of which would overlook the waters of the marina. In total, up to 21 fee-based “self-park” and 339 valet-managed parking spaces would be provided in a six-level parking garage, with one level below grade, for a project total of 360 parking spaces.

Consistent with the Marina del Rey certified LCP, the height of the hotel structure would not exceed 225 feet (exclusive of appurtenant, screened rooftop equipment) when measured per county standards. The hotel/timeshare resort structure has been oriented on the site in a fashion that maximizes public views to the water from Via Marina. The structure would front on Via Marina over the northerly portion of the parcel. Consistent with the LCP height standards allowing for a building with a maximum height of 225 feet on this parcel, the project has been designed with an unobstructed view corridor comprising at least 40 percent of the parcel’s frontage on Via Marina; this large public view corridor will provided over the public wetland park to be developed on the southerly approximately 1.46 acres of the parcel. Public viewing of the harbor will be further enhanced through the project’s development of a 28-foot-wide public pedestrian promenade along the parcel’s entire water frontage (which will connect seamlessly to the waterfront pedestrian promenade being constructed by Legacy Partners as part of the Parcel 10R project component). Public access from Via Marina to the waterfront will be provided along the perimeter of the adjacent public wetland park. Moreover, the public will be able to access both the public waterfront promenade and adjacent wetland park at multiple access points to be provided within the hotel/timeshare resort facility.

Discretionary approvals required for this component of the project include a Coastal Development Permit (required for all new development in the coastal zone), a Tentative Tract Map approval (related to the proposed timeshare units), a Conditional Use Permit (for the proposed parking structure, project building identification signage, an emergency rooftop helistop, and the sale of alcoholic beverages for on-site consumption at the proposed accessory hotel restaurant and outdoor terrace dining area), a Parking Permit for shared use of on-site parking and a Variance (to allow a reduced yard adjacent to the waterfront pedestrian promenade). No amendments to the certified LCP are required for this project component (see **Section 5.15, Parks and Recreation**, for LCP consistency discussion).

Component 4 consists of a 1.46-acre restored public wetland and upland park that would be constructed on the southern portion of Parcel 9U. Discretionary approvals required for this component of the project include a Coastal Development Permit, filed by the County as applicant.

Component 5 includes a public-serving anchorage containing approximately 542 lineal feet of dock space (accommodating berthing of between 7 and 11 public and transient boats, and dinghy moorage) that would be situated adjacent to the Parcel 9U bulkhead within Marina del Rey Basin B. The anchorage would provide four sewage pumpout stations with a single sewage pump that would drain to the existing sewer system. For this project component, the County's "Approval in Concept" is required prior to making application to the California Coastal Commission for a separate Coastal Development Permit authorizing this proposed waterside development.

The Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort ~~Project~~ projects would, therefore, collectively consist of 526 residential dwelling units, 288 hotel/timeshare suites with an assortment of accessory patron- and visitor-serving uses, 174 private and between 7 and 11 public-serving boat spaces and dinghy moorage area, a waterfront public pedestrian promenade and a restored public wetland and upland park area. As there are 136 existing apartments and 198 boat spaces presently on site, implementation of the proposed project would result in a net increase of 390 apartment units, 288 hotel and timeshare suites with accessory patron- and visitor-serving uses, a net decrease of up to 17 boat spaces, a 0.47-acre wetland and 0.99-acre public upland buffer area.

For the residential and hotel/timeshare resort project components, emphasis has been placed on a design that balances public and private views of the marina and enhances the pedestrian experience adjacent to the water. A major feature of the projects that unifies and integrates the proposed residential units, the hotel/timeshare resort, the public wetland and upland park and the adjacent private and public marina components is a pedestrian walkway between the buildings and the anchorages, the "Waterfront Stroll Promenade." Located along the waterside perimeter of Marina Basins B and C, the 28-foot-wide Waterfront Stroll Promenade would feature color-patterned paving, pedestrian seating and marina-styled fencing and lighting and would total 2,023 feet in length (1,437 feet associated with Neptune Marina Parcel 10R, 386 feet associated with the Woodfin Suite Hotel and Timeshare Resort and adjacent public wetland and upland park on Parcel 9U, and 200 feet associated with Neptune Marina Parcel FF, totaling nearly 0.5 mile in length). ~~Along Intermittently along its length, the Waterfront Stroll Promenade would also feature landscaped planters and other landscape, benches, decorative light standards, drinking fountains and potential other features~~ pedestrian amenities constructed immediately adjacent to this pedestrian amenity ~~the open promenade.~~ The entire length of the Waterfront Stroll Promenade would be open to the public and would also function as Fire Department access.

3.1.3.1.1 Residential Units: Neptune Marina Project (Parcels 10R and FF)

As proposed, the Neptune Marina Project consists of four new residential structures each being four stories above two levels of parking (**Figure 3.0-3, Residential Units**). Three buildings (depicted as Buildings 1, 2, and 3 on Site Plan in **Figure 3.0-2**) are situated on Parcel 10R south of Marquesas Way, while one building (depicted as Building 4 on Site Plan in **Figure 3.0-2** below) is situated north of Marquesas Way on Parcel FF. Within the four structures, 526 residential units are proposed that include rental apartment and rental townhome units. The design of the residential component of the project emphasizes a relationship to the waterfront and was conceptually approved by the Design Control Board (DCB) on June 29, 2006. Apartment building orientations have been configured to ensure direct pedestrian access to the Waterfront Stroll Promenade, a portion of which fronts on the newly constructed Neptune Marina Anchorage (Parcel 10R only). There are multiple points for the public to have unimpeded access to the Waterfront Stroll Promenade and the marina. The apartment structures have been separated to the maximum extent feasible to allow for unobstructed view corridors.

The various vehicular, non-vehicular and fire access entries on the property would provide pedestrian access to the promenade and are located between buildings. All access points would be treated with enhanced paving and landscaping that open to the Waterfront Stroll Promenade.

One- and two- bedroom rental units are proposed in 11 different floor-plan configurations. As defined above, 526 residential units are planned. Of these, 330 are one-bedroom apartment units (63 percent of the total) in four different floor-plan configurations; and 196 are two-bedroom apartment units (37 percent of the total) in two different floor-plan configurations. **Table 3.0-1, Description of Proposed Residential Units by Type (Parcels 10R and FF)**, below, provides a breakdown of the number of residential units by product type and their approximate size.

**Table 3.0-1
Description of Proposed Residential Units by Type (Parcels 10R and FF)**

Type of Unit	Quantity Proposed	Size of Unit (sq. ft.)
1-Bedroom Apartment; Type A-1	196	716
1-Bedroom Apartment; Type A-2	64	650
1-Bedroom Apartment; Type A-3	64	849
1-Bedroom Apartment; Type A-4	6	745
2-Bedroom Apartment; Type B-1	46	1,122
2-Bedroom Apartment; Type B-2	42	1,282

Type of Unit	Quantity Proposed	Size of Unit (sq. ft.)
2-Bedroom Townhome; Type T-1	28	1,359
2-Bedroom Townhome; Type T-1b	8	1,543
2-Bedroom Townhome; Type T-1c	10	1,529
2-Bedroom Townhome; Type T-2	28	1,691
2-Bedroom Townhome; Type T-3	34	1,653
TOTAL	526	

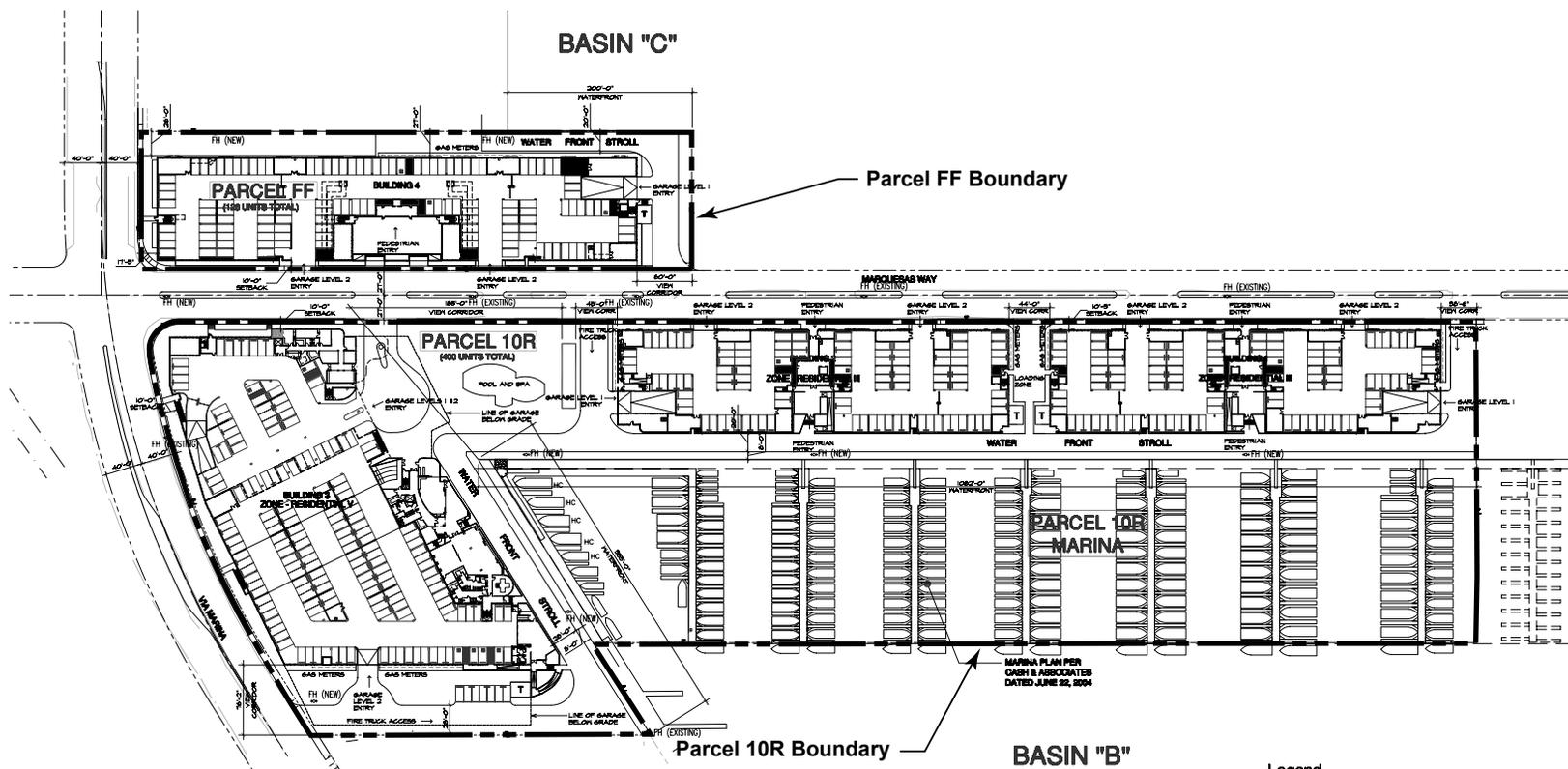
Figure 3.0-4 through Figure 3.0-7 provide illustrations of conceptual floor plans for each of the four residential structures that comprise the Neptune Marina Project (Parcels 10R and FF). The proposed new residential structures would consist of 4, four-story Type V, 1-hour, fully sprinklered, wood-framed residential buildings that would be constructed over a two-level parking garage. Structures are designed with open-air courtyards and perimeter landscaping which is incorporated into the public Waterfront Stroll Promenade. As noted, structure height would not exceed 55 feet for Buildings 1, 2, and 3 and 60 feet for Building 4 (exclusive of appurtenant, screened roof-top equipment) when measured per county standards.

Figure 3.0-8, **Building Elevations: Residential Units–Parcel 10R**, and Figure 3.0-9, **Building Elevations: Residential Units–Parcel FF**, provide representative building elevations, while Figure 3.0-10, **Building Cross Sections: Residential Units**, illustrates representative building cross sections for each proposed structure.

3.1.3.1.1.1 Residential Amenities Neptune Marina Project (Parcels 10R and FF)

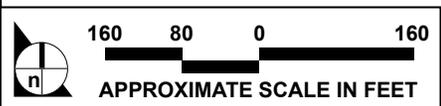
The residential component of the project would feature a variety of recreational amenities, including a resident's fitness center, a media theater room, a recreational lounge, a game room and a business center. In addition to these facilities, the residential component of the project would include space for the harbormaster and leasing offices.

Outdoor recreational amenities would include landscaped decks and grounds adjacent to the Waterfront Stroll Promenade. An exterior pool is proposed between Buildings 2 and 3 (Parcel 10R). These exterior recreational areas would face the marina and would be connected directly to the public Waterfront Stroll Promenade via key-accessed secure gates.



Legend

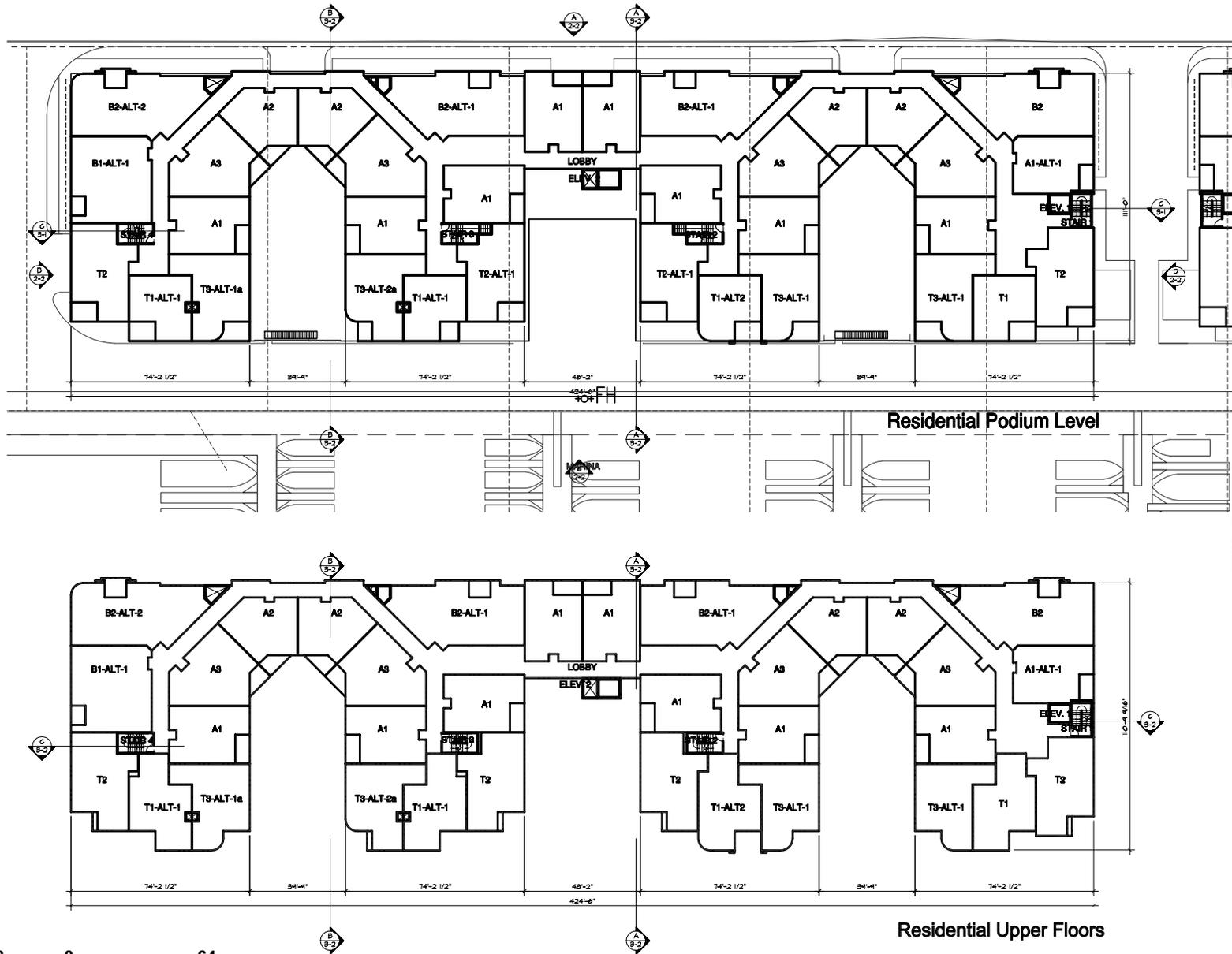
- Transformer location below grade
- Proposed Fire Hydrant Location



SOURCE: Thomas P. Cox: Architects, Inc. – August 2008; Note: Ground Level Perspective

FIGURE 3.0-3

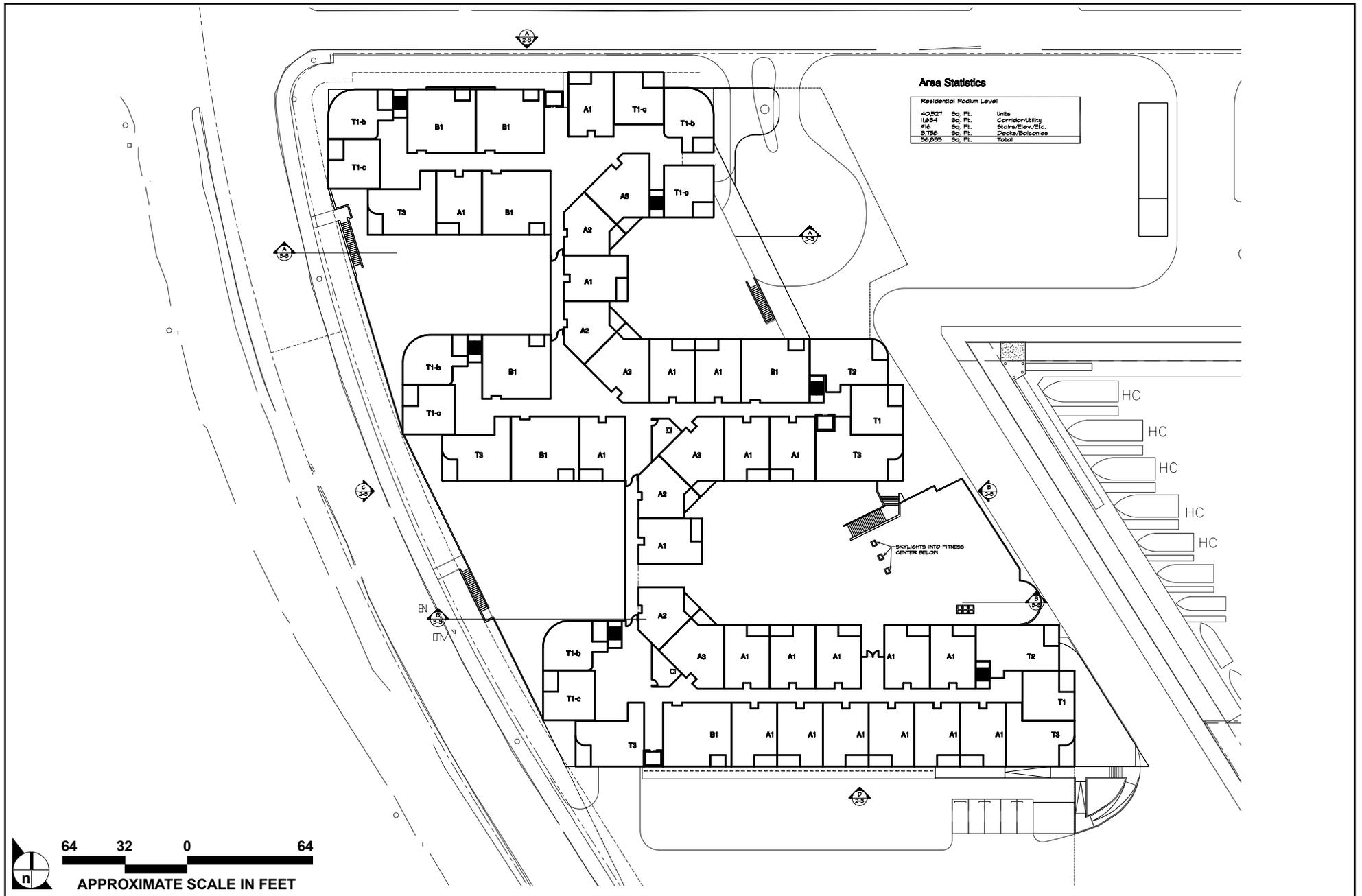
Residential Units



SOURCE: Thomas P. Cox: Architects, Inc. – October 2005

FIGURE 3.0-5

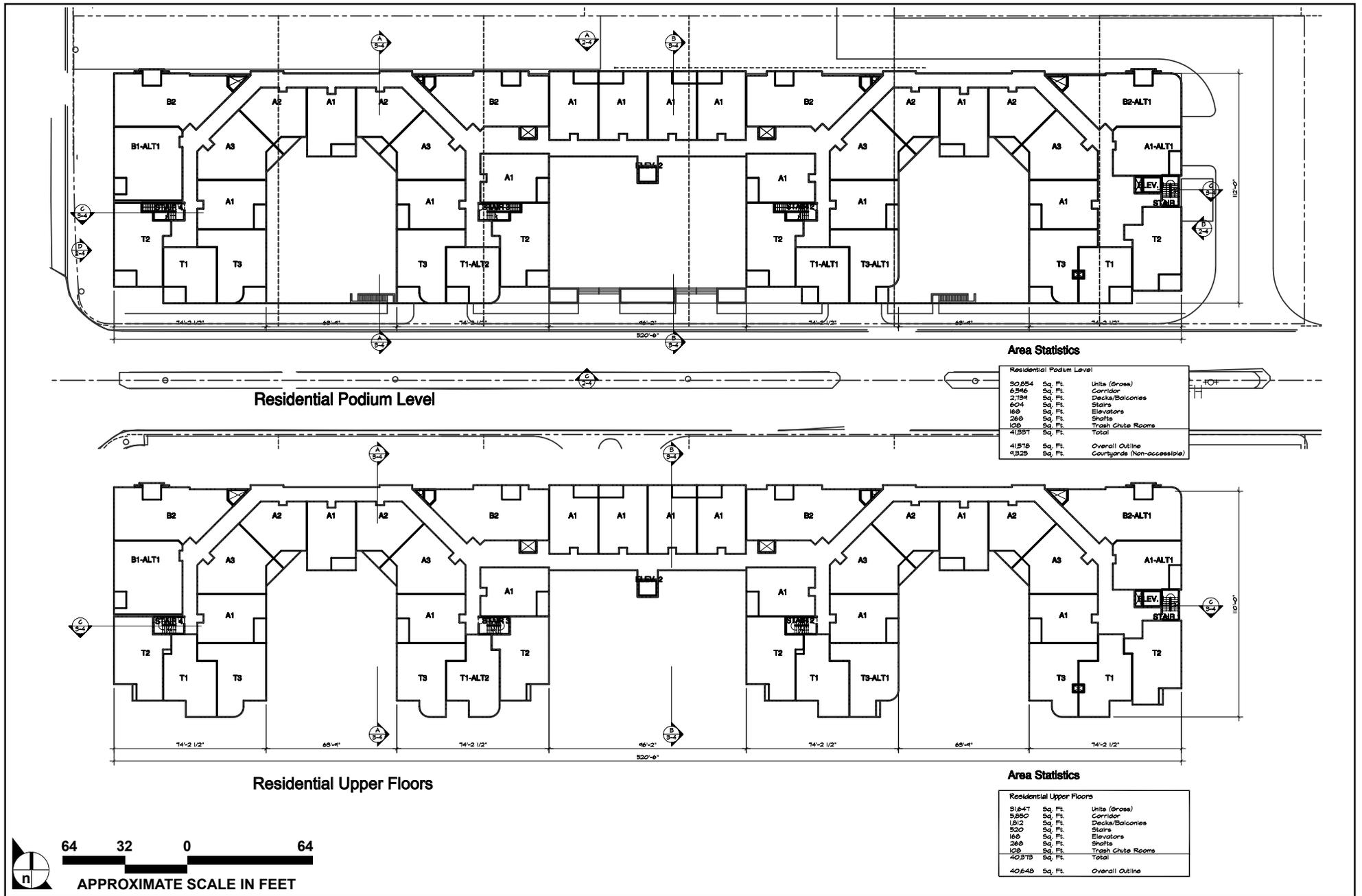
Conceptual Floor Plans: Building Two



SOURCE: Thomas P. Cox: Architects, Inc. – October 2005

FIGURE 3.0-6

Conceptual Floor Plans: Building Three



SOURCE: Thomas P. Cox: Architects, Inc. – October 2005

FIGURE 3.0-7

Conceptual Floor Plans: Building Four



SOURCE: Thomas P. Cox: Architects, Inc. – October 2005, Impact Sciences, Inc. – June 2005

FIGURE 3.0-8

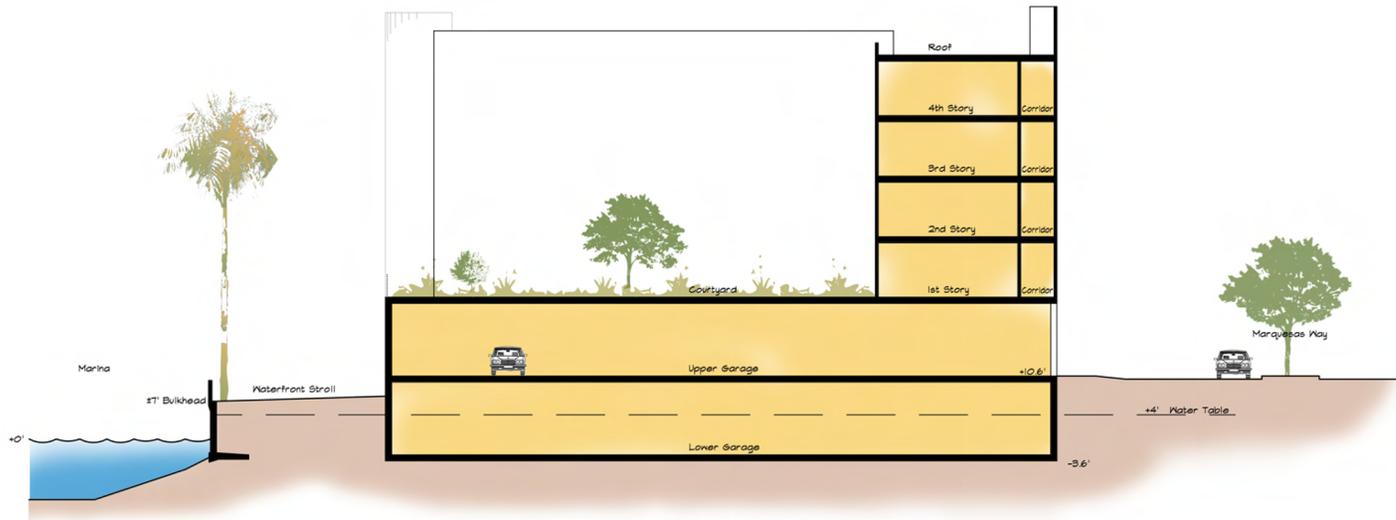
Building Elevations: Residential Units – Parcel 10R



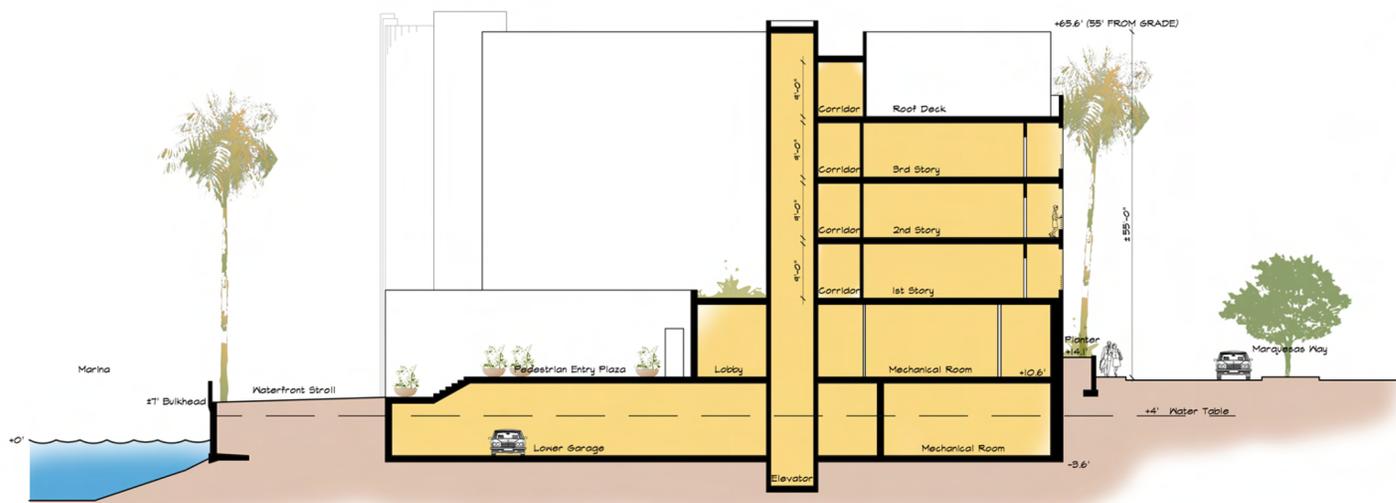
SOURCE: Thomas P. Cox: Architects, Inc. – October 2005, Impact Sciences, Inc. – June 2005

FIGURE 3.0-9

Building Elevations: Residential Units – Parcel FF



Section A



Section B

Building Height Information

Bldg 1 (Mole Waterfront)	55'
Bldg 2 (Mole Waterfront)	55'
Bldg 3 (Non-Mole Waterfront)	60'
Bldg 4 (Mole Waterfront)	55'



SOURCE: Thomas P. Cox: Architects, Inc. – October 2005

FIGURE 3.0-10

Building Cross Sections: Residential Units

3.1.3.1.2 Boat Anchorage: Neptune Marina Project (Parcel 10R)

The proposed Neptune Marina Anchorage, a component part of the Neptune Marina Parcel 10R project, is illustrated in **Figure 3.0-11, Parcel 10R Marina Site Plan**. Within Basin B, a new anchorage would be developed waterside of Buildings 1, 2, and 3 (Parcel 10R) and would be constructed concurrent with the apartment buildings. The existing 198-boat space anchorage would be removed and replaced with 174 new slips and end-tie spaces (a net reduction of 24 spaces). The new marina includes 5 spaces compliant with Americans with Disabilities Act (ADA) requirements. A total of 150 of the 174 proposed spaces are 34 feet or less, with 24 spaces accommodating boats 35 feet in length or more. Maximum slip length would be 40 feet. A summary of the new marina adjacent to Parcel 10R is provided in **Table 3.0-2, Proposed Space Sizes and Quantities (Excluding Public-Serving Spaces)**. Parking is provided in structures below Building 1, 2, and 3.

**Table 3.0-2
Proposed Space Sizes and Quantities (Excluding Public-Serving Spaces)**

Length	Regular	End Ties	ADA	Total	Total Length
24 Feet	9			9	216'
26 Feet	3			3	78'
28 Feet	10			10	280'
30 Feet	71	7	1	79	2,370'
32 Feet	5			5	160'
34 Feet	38	4	2	44	1,496'
38 Feet	2			2	76'
40 Feet	18	2	2	22	880'
TOTAL	156	13	5	174	5,556'

The new marina would replace the existing anchorage facilities with docks and spaces meeting current State of California Department of Boating and Waterways Guidelines for space widths and federal requirements for ADA compliance through use of an ADA gangway and ramp system, which would service a range of space sizes. It is anticipated that the new docks would be constructed with current marina industry technology and materials (possibly a proprietary concrete dock system, with all new pre-stressed concrete guide piles and served with a new utility distribution system for power, water, cable, and phone connections).

ADA requirements and modern boat dimensions (wider beam widths) necessitate the 24-space reduction defined above. ~~Current ADA requirements and analysis of modern boat dimensions are provided in~~

~~Appendix 3.0~~ In the anchorage, all utility lines would be concealed under the deck. As shown in **Figure 3.0-11**, the anchorage design utilizes seven gates and gangways to access the docks from the landside. Gate access would be electronically controlled.

To promote clean water boating, sewage pump-out would be located in a central location that would serve the entire anchorage. Oversized storage facilities (dock boxes) would be provided at the anchorage to better serve recreational boaters.

3.1.3.1.3 Woodfin Suite Hotel and Timeshare Resort Project

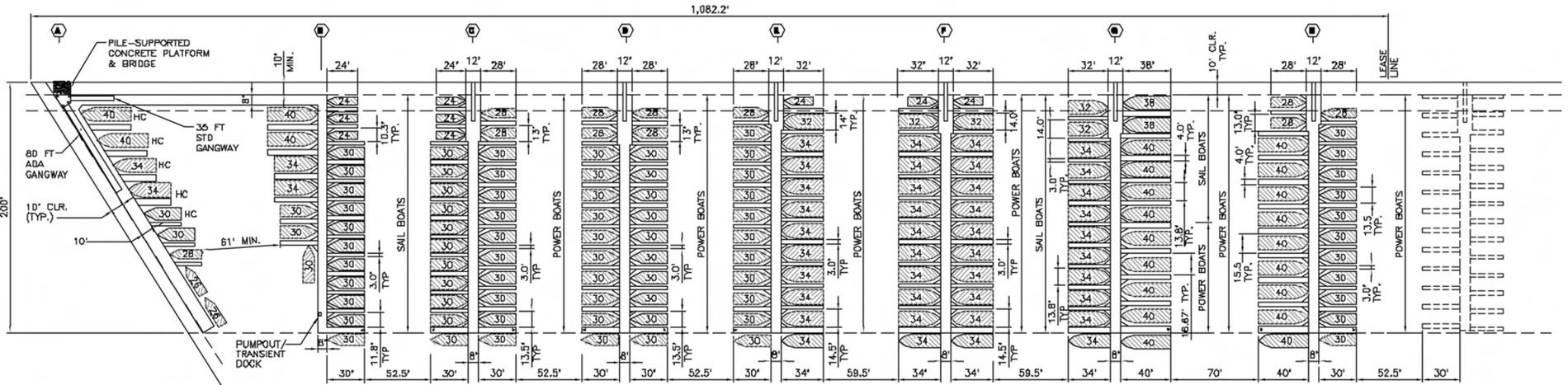
Figure 3.0-12, Site Plan: Woodfin Resort Hotel and Timeshare Resort, provides a conceptual illustration of the proposed Woodfin Suite Hotel and Timeshare Resort Project. The project is situated on the northern portion of Parcel 9U and consists of a 19-story building with 288 hotel and timeshare suites and an assortment of accessory patron- and/or visitor-serving uses, including meeting rooms, a restaurant and bar/lounge, an exercise room, a spa, an outdoor pool, and associated hotel operations space, such as the lobby, hallways, elevator shafts, mechanical rooms, offices, and laundry, maintenance and custodial facilities. The building would also feature an outdoor terrace and a large third floor deck with a pool, both of which would overlook the waters of the marina. In total, 360 parking spaces would be provided in a six-level parking garage, with one level below grade.

The intent of the site plan was to concentrate development on the northern portion of the project site and preserve the southern portion of Parcel 9U as a restored public wetland and upland park. All ground floor uses would be accessible to the public. It is intended that the ground floor of the hotel, the adjacent pedestrian promenade, the wetland park, and the public-serving boat spaces combine to create an interactive public node.

Consistent with the certified LCP and past CCC approvals, height of the hotel/timeshare resort structure would not exceed 225 feet (exclusive of appurtenant, screened roof-top equipment, parapets and architectural features) when measured from the finished grade. The structure would front Via Marina and would be located southeast of the intersection of Via Marina and Marquesas Way and northeast of the intersection of Via Marina and Tahiti Way.

3.1.3.1.3.1 Proposed Hotel/Timeshare Resort Building Layout

Floors one, two, and three of the hotel would include all non-residential areas of the buildings, including loading areas, hotel lobby and offices, a restaurant and bar, an exercise room, a spa, a pool, outdoor function areas, meeting rooms and a conference room/ballroom. Cross-sections of the project are



(SAIL/POWER BOATS) SINGLE WIDE SLIPS

OPTION 174

SCALE 1"=40'

OPTION 174 - BOAT COUNT

LENGTH	REGULAR	END TIES	ADA	TOTAL	TOTAL LF
24'	9			9	216'
28'	3			3	78'
28'	10			10	280'
30'	71	7	1	79	2370'
32'	5			5	160'
34'	38	4	2	44	1486'
38'	2			2	78'
40'	18	2	2	22	880'
TOTAL	156	13	5		
GRAND TOTAL				174	5558'

$9/174 \times 100 = 5\% \text{ 24' OR LESS}$
 $12/174 \times 100 = 7\% \text{ 28' OR LESS}$
 $22/174 \times 100 = 13\% \text{ 28' OR LESS}$
 $101/174 \times 100 = 58\% \text{ 30' OR LESS}$
 $106/174 \times 100 = 61\% \text{ 32' OR LESS}$
 $150/174 \times 100 = 86\% \text{ 34' OR LESS}$

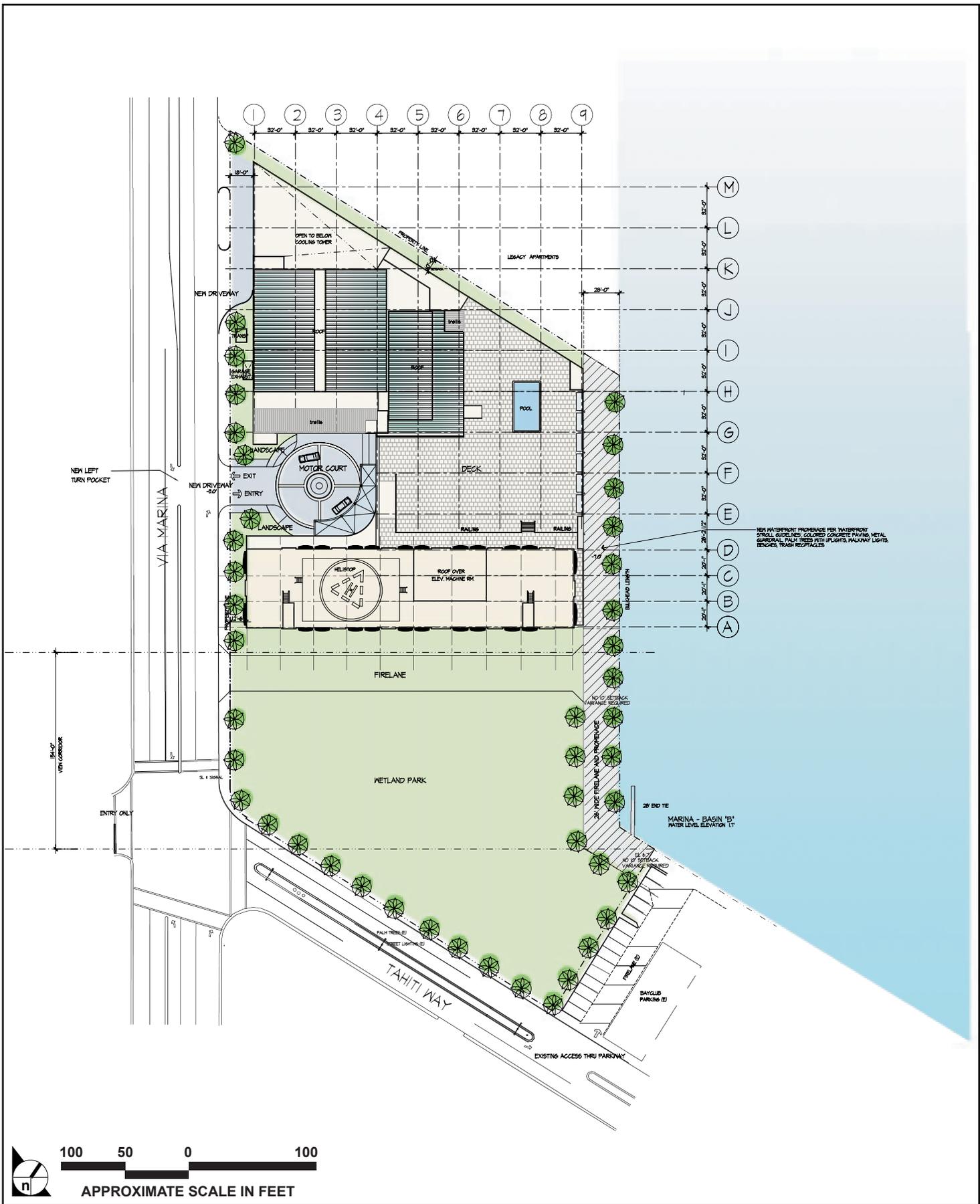
AVERAGE BOAT SIZE = 31.94'



SOURCE: Thomas P. Cox: Architects, Inc. - March 2006

FIGURE 3.0-11

Parcel 10R Marina Site Plan



SOURCE: Gin Wong Associates – February 2006

FIGURE 3.0-12

Site Plan: Woodfin Suite Hotel and Timeshare Resort

illustrated on **Figures 3.0-13, Cross Sections: Woodfin Suite Hotel and Timeshare Resort**, and **3.0-14, Cross Sections: Woodfin Suite Hotel and Timeshare Resort**. Building elevations are shown on **Figure 3.0-15, Conceptual Building Elevations: Woodfin Suite Hotel and Timeshare Resort**.

The ground floor of the project would include the lobby and registration/reception area, elevator bays (four bays), the business center, hotel offices, a resort restaurant and bar, kitchen, sundry shop, meeting rooms and restrooms. The exterior of the ground floor of the hotel (**Figure 3.0-16, Ground Floor Plan: Woodfin Suite Hotel and Timeshare Resort**) would provide for resort ancillary uses consisting of outdoor dining areas, the motor court (drop-off and valet parking area), the entrance to the parking area, and service docks for truck loading. All ground floor uses would be accessible to the public. It is intended that the ground floor of the hotel, the adjacent pedestrian promenade, restored wetland and upland park and the public-serving boat spaces combine to create an interactive public node.

Second and third floor uses are illustrated on **Figure 3.0-17, Second and Third Floor Plans: Woodfin Suite Hotel and Timeshare Resort**. As shown, second floor uses would include a ballroom, meeting rooms, and banquet kitchen. The third floor of the building would contain an exercise room/spa that would open to the pool deck.

The tower portion of the building, incorporating portions of the second and third floors, and floors 4 through 19, would contain the 288 hotel and timeshare units. An example of the layout of these floors is presented in **Figure 3.0-18, Floor Plans Four through Nineteen: Woodfin Suite Hotel and Timeshare Resort**. Other uses on floors 4 through 19 would include the elevator lobby, a service lobby, and housekeeping rooms.

An emergency helistop is proposed on the roof of the hotel complex consistent with County Code requirements (Fire Code 1107.9). Other screened roof elements include mechanical equipment, chillers, cooling towers, a service lobby, elevator machine room, and an emergency generator and boiler.

3.1.3.1.3.2 Hotel and Timeshare Units

In total, 288 hotel and timeshare guest units are proposed as part of the project. There are three general types of units proposed for the building: hotel units, one-bedroom timeshare units and two-bedroom timeshare units. As proposed, there would be 152 conventional hotel suites, 68 one-bedroom timeshare units, and 68 two-bedroom timeshare units. Each hotel suite and timeshare unit would have one or two bedrooms, a sitting area, kitchenette and bathroom, and an exterior balcony.

All of the project's proposed 136 timeshare suites are intended and designed to be used on a temporary basis by guests. At this time, it is expected that stays in the timeshare units would be limited to no more

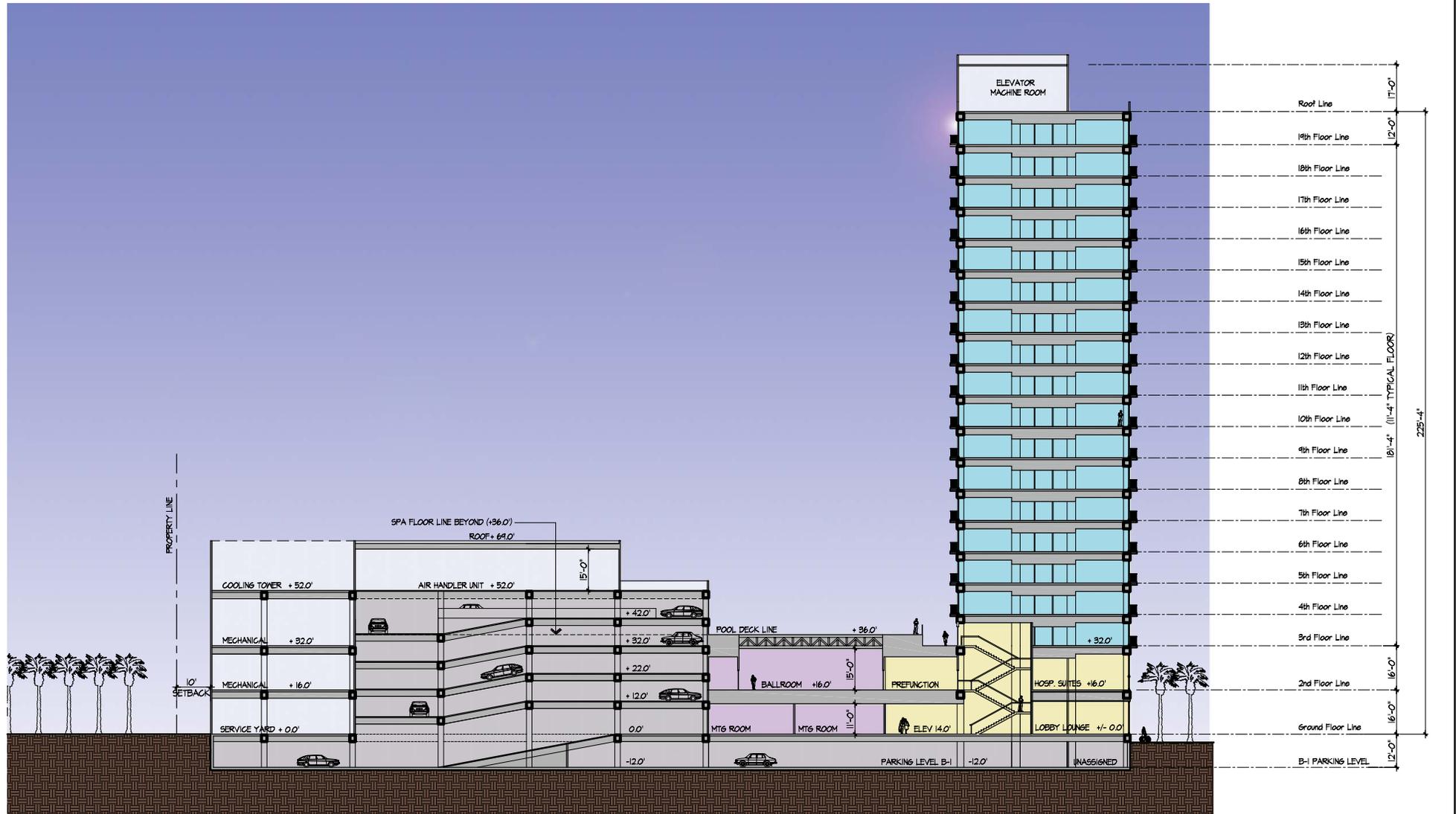
than four weeks annually and consecutively. Per Title 22 of the Los Angeles County Code, hotel stays would be limited to 30 consecutive days for any one stay. Moreover, the Woodfin Suite Hotel and Timeshare Resort will be a full-service facility, with a single set of support facilities (check-in desk, reception, restaurants, cocktail lounge, etc.) for both timeshare and hotel users. Therefore, there will be no distinction in terms of services between hotel patrons and timeshare patrons.

The Woodfin Suite Hotel and Timeshare Resort will enhance visitor-serving uses by providing much needed additional overnight accommodations through both the hotel and timeshare component, both of which are consistent with the LCP. The hotel and timeshare units are intended or designed to be indistinguishable and used on a temporary basis by guests. Some key operational aspects of the project include:

- The timeshare suites will not be in a separate tower from the hotel suites; rather, both the hotel and timeshare suites will be on same floors (4 through 19).
- Rental of both the timeshare suites and hotel suites will be handled in a similar manner by on-site management (electronic keys issued by the front desk, concierge services, housekeeping, and front-desk check-in/out).
- Timeshares will be made available to the general public through the hotel reservation system when not used by timeshare vacationers.
- Timeshare vacationers may make their unused timeshare suites available to the general public.
- Timeshare suites will be marketed through an exchange program and through the hotel, and will be rented at comparable rates to equivalent hotel suites.
- Timeshare suites will be sold in one-week intervals.
- Stays in the timeshare suites will be limited to no more than a total of four weeks annually.
- The Woodfin timeshare component will remain a commercial use and will comply with the timeshare laws governed by the California Department of Real Estate.

3.1.3.1.3.3 Guest and Visitor Amenities

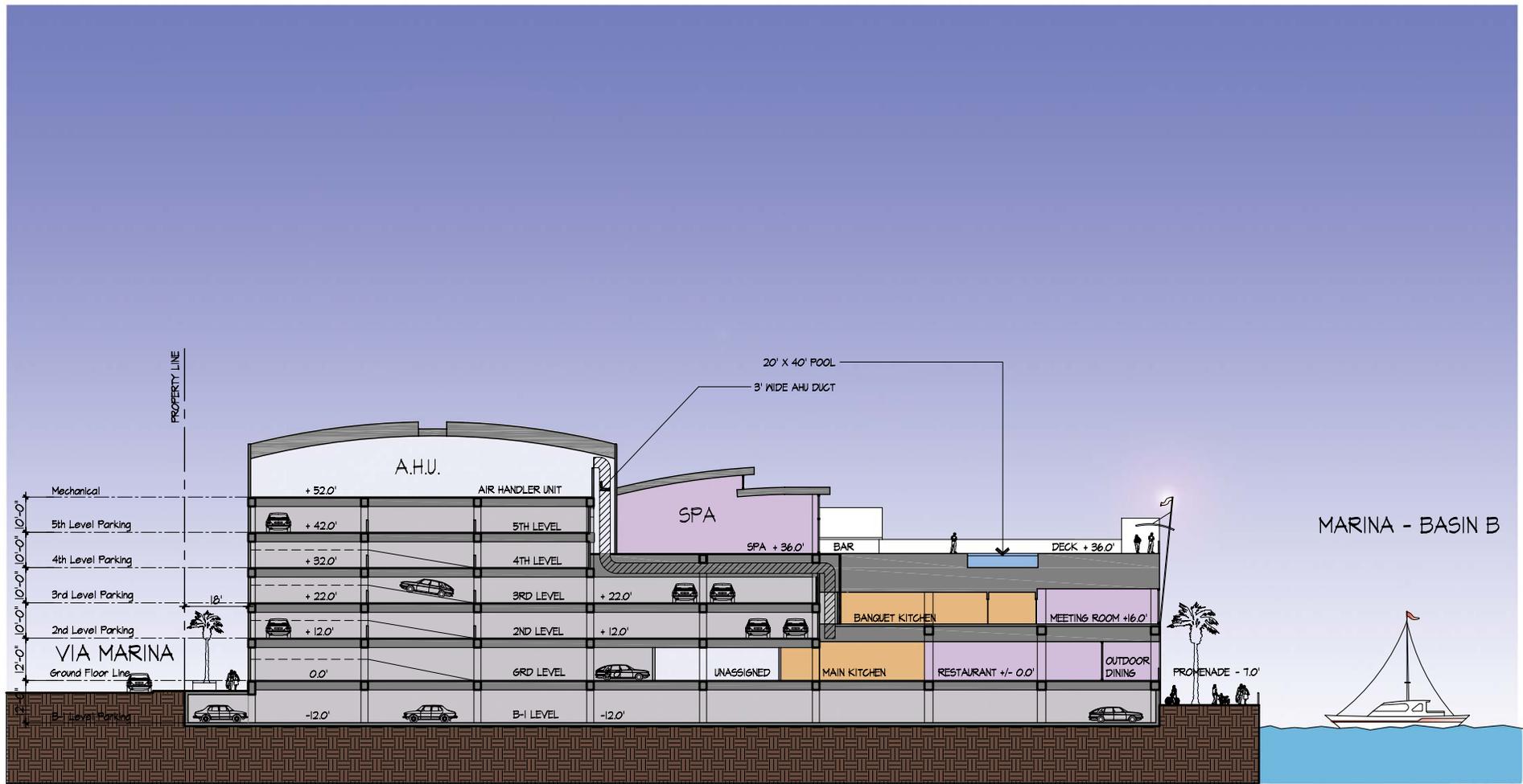
The Woodfin Suite Hotel and Timeshare Resort project would feature a variety of visitor-serving recreational amenities, including a restaurant and bar, a business center, meeting rooms, sundry shop, and exercise room/spa. Outdoor amenities would include pool facilities and a dining terrace overlooking the Waterfront Stroll Promenade and the Marina.



SOURCE: Gin Wong Associates – February 2006

FIGURE 3.0-13

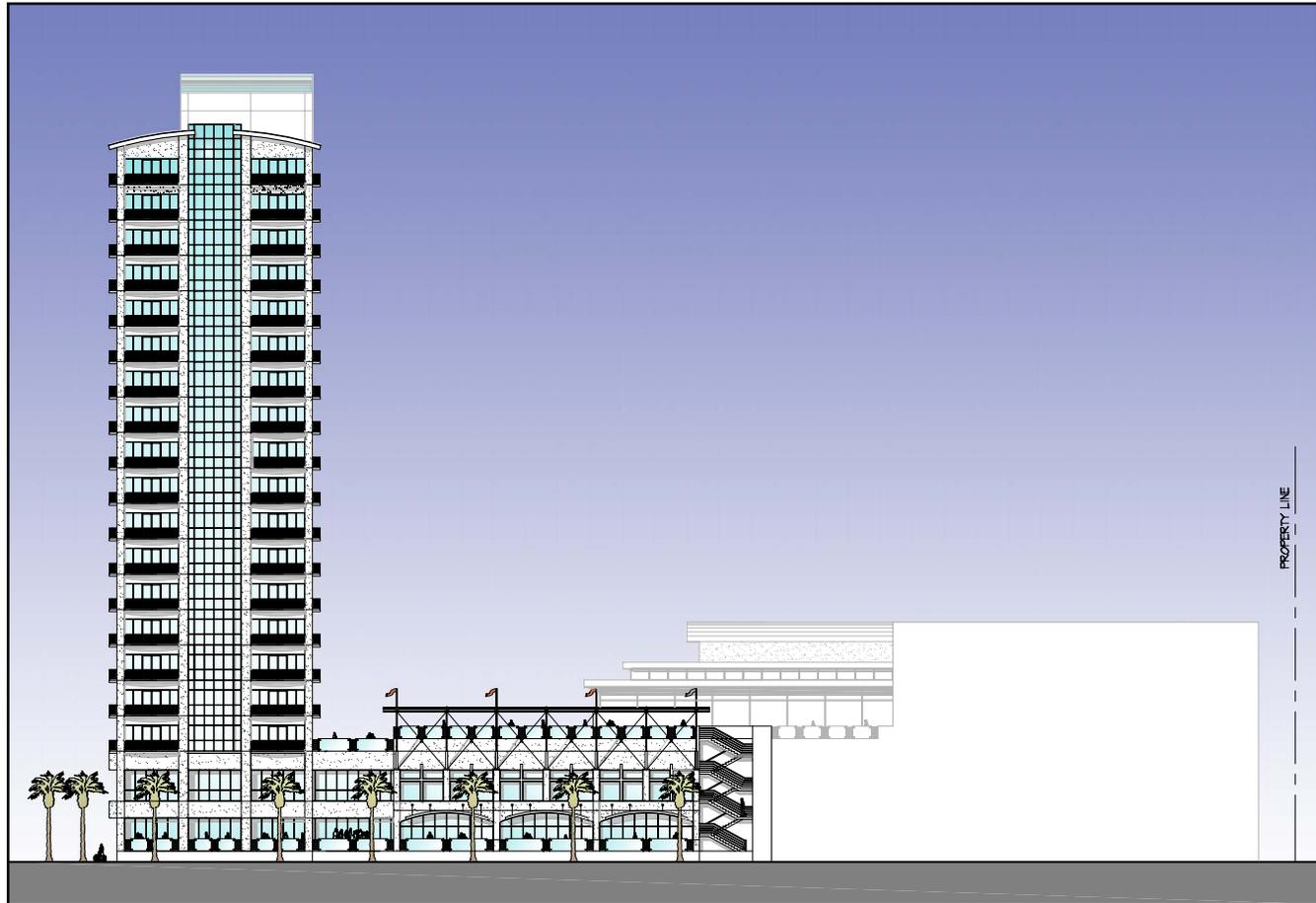
Cross Sections: Woodfin Suite Hotel and Timeshare Resort



SOURCE: Gin Wong Associates – February 2006

FIGURE 3.0-14

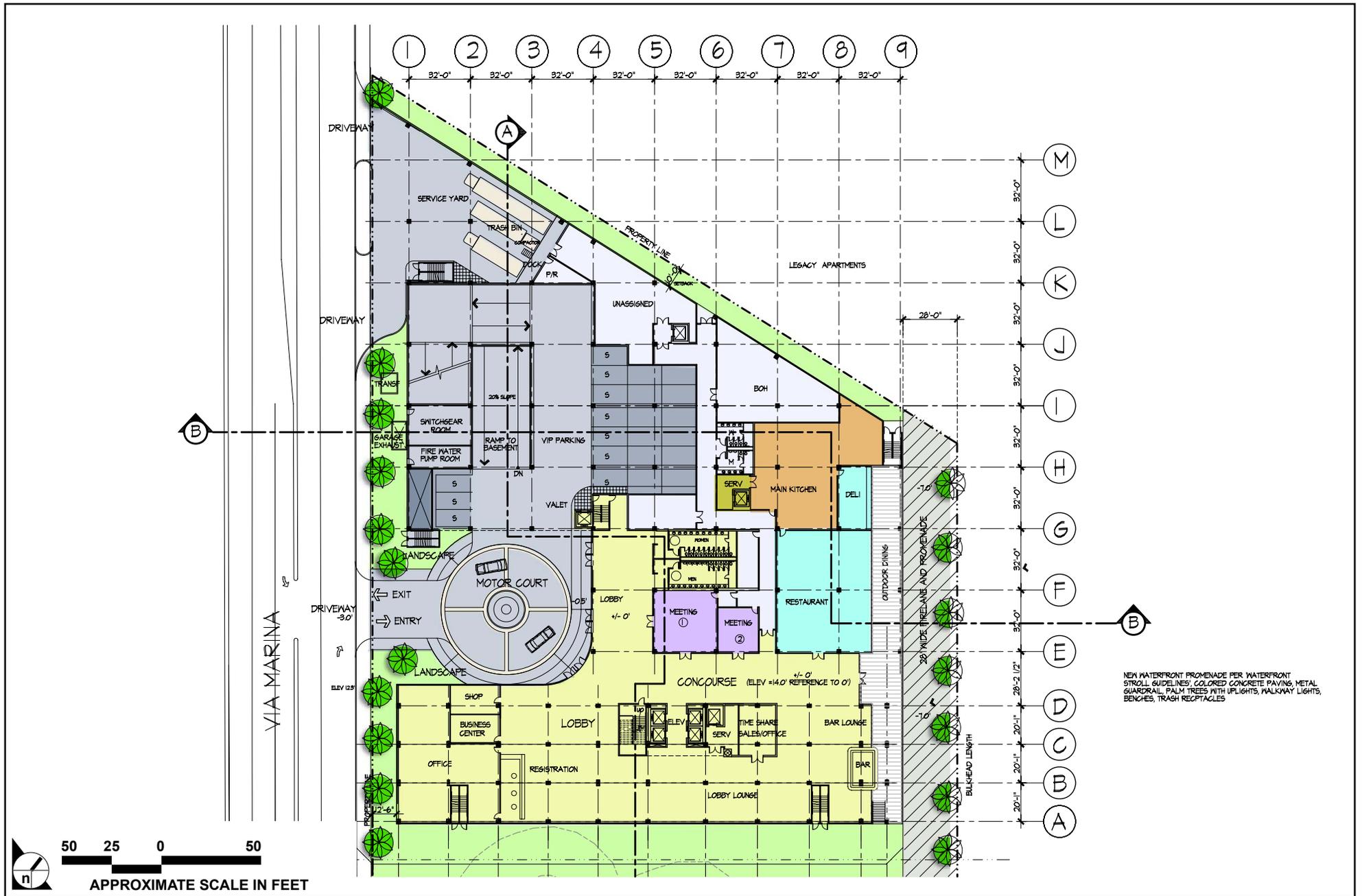
Cross Sections: Woodfin Suite Hotel and Timeshare Resort



SOURCE: Gin Wong Associates – 2006

FIGURE 3.0-15

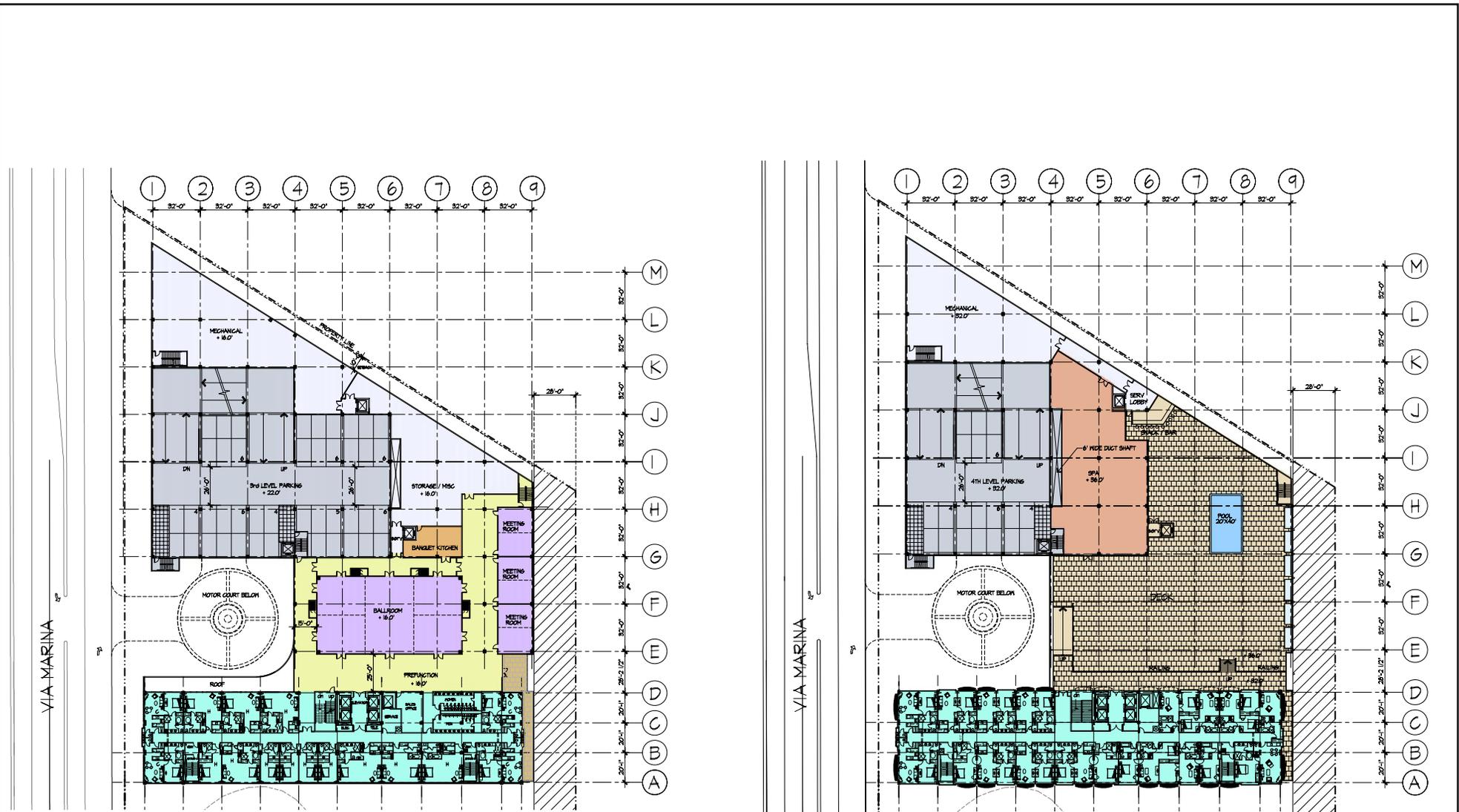
Conceptual Building Elevations: Woodfin Suite Hotel and Timeshare Resort



SOURCE: Gin Wong Associates - 2006

FIGURE 3.0-16

Ground Floor Plan: Woodfin Suite Hotel and Timeshare Resort



Second Floor Plan

Third Floor Plan



SOURCE: Gin Wong Associates – 2006

FIGURE 3.0-17

Second and Third Floor Plans: Woodfin Suite Hotel and Timeshare Resort



SOURCE: Gin Wong Associates – 2006

FIGURE 3.0-18

Floor Plans Four Through Nineteen: Woodfin Suite Hotel and Timeshare Resort

3.1.3.1.3.4 Public Amenities

A major feature of the project that unifies and integrates the hotel/timeshare resort with the Marina is the continuation of the Waterfront Stroll Promenade from Legacy Partners' Parcel 10R pProject across the entire waterfront extent of Parcel 9U. The Waterfront Stroll Promenade is an improvement to an existing narrow (approximately 8 feet) concrete sidewalk that occurs adjacent to the marina. A conceptual representation of this feature is presented in **Figure 3.0-19, Waterfront Stroll Promenade**. To be located along the waterside perimeter of the proposed hotel/timeshare resort and public wetland park at Parcel 9U, the 28-foot-wide public Waterfront Stroll Promenade will feature special color-patterned paving, landscaping, pedestrian seating and marina-styled fencing and lighting and would also serve as fire access. The length of the Waterfront Stroll Promenade on Parcel 9U is approximately 386 feet. The hotel/timeshare resort will feature landscaped planters and other features constructed immediately adjacent to but separated from the public Waterfront Stroll Promenade. Landscaped areas are also proposed along the western, eastern, and southern margins of the project and in various perimeter areas surrounding the hotel/timeshare resort structure. During project operation, public access to the Marina and the Waterfront Stroll Promenade will be available at all times along a walkway on the southeastern side of the building. This walkway would be treated with enhanced paving and landscaping similar to that of the Waterfront Stroll Promenade. Temporary closures to the promenade will occur during construction activities.

As stated, all ground floor uses of the hotel would be accessible to the public. It is intended that the ground floor of the hotel, the adjacent pedestrian promenade, the restored wetland and upland park and the public-serving boat spaces combine to create an interactive public node.

3.1.3.1.4 Access and Parking: Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

3.1.3.1.4.1 Neptune Marina: Parcels 10R and FF

For residents, vehicular access (**Figure 3.0-20, Neptune Marina Project Vehicular Access**) to and from the proposed residential components would be provided at 11 locations. Ten points of access are located off Marquesas Way (seven to the south and three to the north). The one remaining point of vehicular access is located along Via Marina south of Marquesas Way. For residential visitors, vehicular access to the interior portions of the project is via four signed entrances on Marquesas Way. New median cuts along Marquesas Way are proposed that will require the removal of up to nine trees landscape trees. Vehicular access for boaters and users of the anchorage is via one entrance on Via Marina (to the south). Pedestrian access to the public Waterfront Stroll Promenade is via a series of signed paved walkways between the buildings.

In each of the four proposed buildings, parking is provided in two-level garages built below each building. The lowest level of parking is entirely subterranean on the street side of the building while the upper level of parking would be built at ground level. All parking garages would be screened by architectural and landscaping features, primarily by terraced, landscaped planters along the street and by landscaping along the promenade.

A minimum of 1,150 parking spaces would be provided throughout the Neptune Marina Parcels 10R and FF. Parking for apartment residents, their guests and the anchorage boaters would be segregated. Among the three user types, residents would be provided parking within the two-level garages through the use of security gate enclosures provided at both levels in all four buildings. Parking for guests is provided within the garages of each building. A parking area for boaters and users of the anchorage is provided in the southern end of the garage in Building 3 (on Parcel 10R). **Table 3.0-3, Neptune Marina Project (Parcels 10R and FF), Description of Parking Facilities by Building**, shows the breakdown of parking spaces by building.

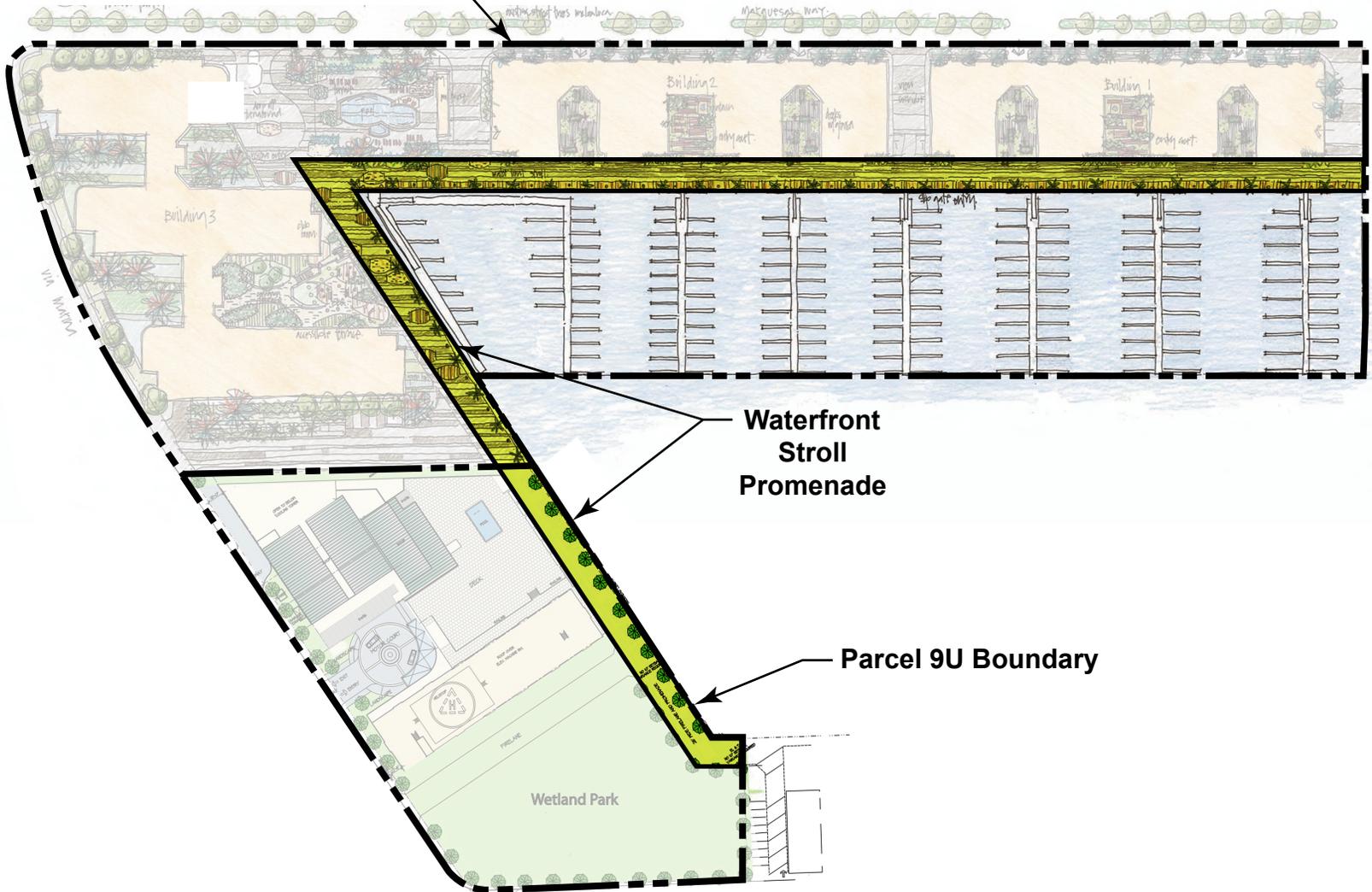
Table 3.0-3
Neptune Marina Project (Parcels 10R and FF)
Description of Parking Facilities by Building

Building	Resident Spaces	Guest Spaces	Boater Spaces	Total
I (10R)	189	28	0	217
II (10R)	189	28	0	217
III (10R)	299	44	131	474
IV (FF)	210	32	0	242
TOTAL	887	132	131	1,150

3.1.3.1.4.2 Woodfin Suite Hotel and Timeshare Resort

Vehicular access to and from the Woodfin Suite Hotel and Timeshare Resort Project would be taken from two locations along Via Marina (see **Figure 3.0-21, Vehicular Access: Woodfin Suite Hotel and Timeshare Resort**). One access point would provide an entry to the motor court and the parking garage. The second access point would be located north of the access to the motor court and would provide access to the service entry and loading docks. Project applicants associated with Parcels 10R and 9U have conceptually agreed that there will be a limited access easement for trucks entering the Woodfin Suite Hotel service area to pass over Parcel 10R at the street side (across from the fire lane) on the north side of 9U.

Parcel 10R Boundary



Waterfront
Stroll
Promenade

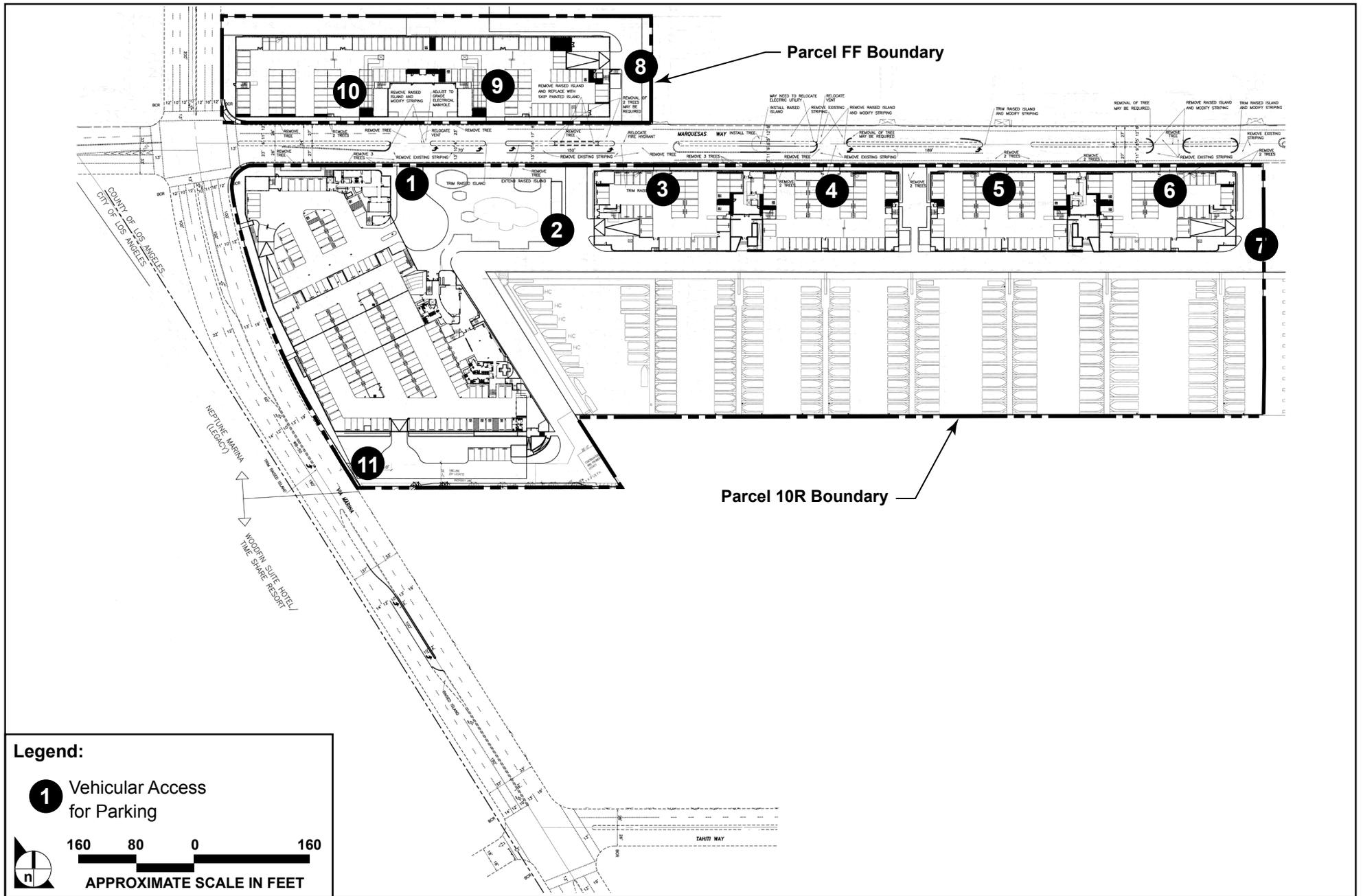
Parcel 9U Boundary



SOURCE: Thomas P. Cox: Architects, Inc. – April 2005

FIGURE 3.0-19

Waterfront Stroll Promenade



SOURCE: Crain and Associates - August 2006

FIGURE 3.0-20

Neptune Marina Project Vehicular Access

Parking for the Woodfin Suite Hotel and Timeshare Resort would be provided in a six-level parking structure connected to northern side of the hotel building. Five levels would be above and one level would be below finished grade. The first three levels of the garage would connect with the ground, second and third floors of the hotel building. Three-hundred-sixty parking spaces would be provided within this structure, 21 of which would be fee-based “self-parking” spaces open to the public and the remainder of which would be valet-managed parking spaces. One space would be dedicated to the restored wetland and upland buffer park.

3.1.3.1.5 View Corridors: Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

3.1.3.1.5.1 Neptune Marina: Parcels 10R and FF

As noted, during the public hearings for the 1996 major amendment to the LCP, the County and the CCC considered changes that would result from modified development standards allowing building heights up to 225 feet. Buildings of up to 225 feet (the maximum height allowed in the Marina under the certified LCP) are allowed on select parcels fronting on Marina “loop roads” Via Marina and Admiralty Way, but only when the proposed building height is accompanied with the provision of view corridors that guarantee views to the harbor. This requirement is consistent with Coastal Act Policy 30251, which requires that coastal development be sited in a manner that shall protect views of the coastal waters. Consistent with this policy, all development on waterfront parcels, regardless of the height of buildings developed thereon, shall provide a minimum unobstructed view corridor of 20 percent of the parcels’ water front to the boat basins. The potential impact of taller buildings causing sun shadow effects or affecting the wind patterns of the Marina are required to be evaluated for any potentially negative impact prior to such taller buildings being constructed.

The certified LCP sets forth a key urban design principal for the Marina calling for the implantation of a “modified bowl concept,” consisting of a skyline of taller buildings around the outer and northern edges of the Marina, with lower height buildings on the mole roads, with limited exception. Implementation of the concept is intended to enhance the Marina’s image and to guarantee that adequate sunlight and wind circulation continues over the Marina water basin (see Los Angeles County Code 22.46.1040). To implement the modified bowl concept, the LCP provides for building heights up to a maximum of 225 feet on select parcels when expanded view corridors comprising at least 40 percent of the parcels’ water frontage are provided. The trade-off for the additional building height (i.e., maximum of 225 feet) is the provision of larger public view corridors over the parcels (i.e., view corridor comprising no less than 40 percent of the parcel’s water frontage).

Consistent with the view corridor/building height relationship of the certified LCP, Neptune Marina Parcels 10R and FF incorporate five view corridors. Of the five view corridors, three corridors allow vistas of Marina del Rey Basin B from Marquesas Way (southerly), and one corridor allows vistas of Marina del Rey Basin C from Marquesas Way (northerly). The fifth view corridor allows vistas of Marina del Rey Basin B from Via Marina (easterly).

Provisions of the LCP tabulate the width of required view corridor based on the length of the parcel's water frontage and the proposed building height. Based on the length of the parcel's water frontage and a proposed building height of 55 feet for Buildings 1, 2 (Parcel 10R); and 4 (Parcel FF); and 60 feet for Building 3 (Parcel 10R); the LCP requires a total of 413 linear feet of view corridor for both parcels. As proposed, the Neptune Marina Parcels 10R and FF project would provide 449 linear feet of view corridor. As such, the residential project, as planned, is consistent with view corridor provisions of the Marina del Rey LCP that call for public and private views of the marina from perimeter roadways.

3.1.3.1.5.2 Woodfin Suite Hotel and Timeshare Resort (Parcel 9U)

The Woodfin Suite Hotel and Timeshare Resort Project incorporates one expansive view corridor ~~on that~~ over the southerly portion of Parcel 9U, ~~south of the hotel.~~ The primary view corridor allows vistas of Marina del Rey Basin B from Via Marina through the Parcel 9U public park/wetland. As set forth in the above discussion of the certified LCP's modified bowl urban design concept, based on the proposed 225-foot height of the hotel/timeshare resort structure (excluding appurtenant roof-top structures), a view corridor totaling 40 percent of the parcel length is required. For the 386-foot-long site, a minimum 154-foot-wide view corridor is required. The project plans for 154 linear feet of view corridor through the Parcel 9U public park/wetland situated south of the hotel/timeshare resort structure. Because the project provides the required 154 feet of public view corridor on Parcel 9U (the minimum required in this instance to achieve the proposed hotel structure height), the hotel/timeshare resort is consistent with provisions of the LCP that call for public and private views of the Marina from perimeter roadways. ~~However, the hotel and timeshare resort structure would also be substantially taller than the lower-height residential structures in the project vicinity that do not exceed three stories.~~

3.1.3.1.6 Infrastructure Improvements: Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

3.1.3.1.6.1 Neptune Marina Parcels 10R and FF

All infrastructure and utilities needed to serve the Neptune Marina Parcels 10R and FF are located on-site or in perimeter roadways. The project would construct or participate in the construction of all improvements necessary to serve the proposed project, including improvements to off-site facilities.

Improvements for Parcel 10R consist of a looped fire main connecting to an existing 12-inch main located along Marquesas Way at the easterly end of the project site and ~~a~~ the installation of and connection to a ~~new existing 12~~ existing 12-inch water main to replace the existing 12-inch water main located along Via Marina at the western end of the project. The ~~precise~~ alignment of the proposed ~~500 feet~~ main ~~has not been defined,~~ but would occur within the existing site boundaries/utility easement within Via Marina.

For Parcel FF, on-site improvements would consist of a looped fire main connecting to an existing 12-inch main located along Marquesas Way at the easterly end of the project site and the installation of and connecting to a ~~n-existing 12~~ new 12-inch water main to replace the existing 12-inch water main located along Via Marina at the western end of the project. The ~~precise~~ alignment of the proposed ~~170 feet~~ main ~~has not been defined,~~ but would occur within the existing utility easement within Via Marina/site boundaries.

Once off-site and on-site improvements are completed, the existing and proposed water mains would have the capacity to adequately serve the Neptune Marina Parcels 10R and FF. Planned off- and on-site improvements are described in detail in **Section 5.9, Water Service**, of this draft EIR.

Proposed sewer improvements for Parcel 10R would require the abandonment of approximately ~~1,046~~ 50 linear feet (466 feet within Parcel 10R, 130 feet within Parcel FF, and 54 feet within Marquesas Way right-of-way) of existing 10-inch sewer main and 240 linear feet of an existing 8-inch line. A new 8-inch and 10-inch sewer would be constructed to service the Neptune Marina Parcel 10R ~~and Neptune Marina Parcel FF.~~ The ~~precise~~ alignment of the proposed 10-inch main has not been defined, but would place about 500 linear feet within Marquesas Way and 160 linear feet within Via Marina; an additional 180 linear feet would occur within existing site boundaries of Parcel 10R. Approximately 710 linear of a new 8-inch sewer line would occur within the Parcel 10R boundaries along the bulk head. These improvements are described in detail in the **Section 5.8, Sewer Service**, of this draft EIR.

Other on-site improvements involve construction of the storm water drainage network and utility systems. All infrastructure would be designed and constructed in accordance with policies and standards defined by the County of Los Angeles Department of Public Works. A drainage study has been prepared and submitted for County approval.

3.1.3.1.6.2 Woodfin Suite Hotel and Timeshare Resort

All infrastructure and utilities needed to serve the Woodfin Suite Hotel and Timeshare Resort Project are located proximal to each project site in Via Marina and Tahiti Way. The project would construct or participate in the construction of all improvements necessary to serve its proposed uses, including improvements to off-site facilities. Improvements proposed for Parcel 9U consist of a new fire main

connecting to the existing 12-inch water main located on Tahiti Way. Given these improvements, the existing and proposed water mains would have the capacity to adequately service the project. However, approximately 570 feet of a new 18-inch diameter water main in Via Marina is planned to replace the existing 12-inch water main.

Proposed sewer improvements associated with project would require approximately 210 linear feet of new 8-inch sewer to service the Woodfin Suite Hotel and Timeshare Resort Project. The precise alignment of the proposed sewer has not been defined, but would occur within existing site boundaries. These improvements are discussed in detail in **Section 5.8** of this draft EIR. Other on-site improvements would involve the construction of the storm water drainage network, and utility systems. All infrastructure would be designed and constructed in accordance with the policies and standards set forth by the County of Los Angeles Department of Public Works.

3.1.3.1.7 Construction Program: Neptune Marina Project

An overall construction schedule for Neptune Marina Parcels 10R and FF and the Woodfin Suite Hotel and Timeshare Resort project is provided in **Table 3.0-4, Neptune Marina Woodfin Suite Hotel and Timeshare Resort Project – Construction Assumptions**, below. In addition, the total amount of cut, fill, and soil export is defined. The public-serving boat spaces are anticipated to be completed in January 2011.

It is expected that public access to the Waterfront Stroll Promenade would be closed during construction. As shown above, the Waterfront Stroll Promenade would be closed ~~33~~30 months in association with development of Parcel 10R, ~~24~~24 months in association with development of Parcel FF, ~~24~~30 months in association with development of Parcel 9U and 12 months in association with development of the restored public wetland and upland buffer. Pedestrian access would be routed along Via Marina and Marquesas Way during project construction. The project construction will result in excess cut from grading operations that will require export of soil to a solid waste facility (Puente Hills Landfill). As depicted in **Figure 5.3-6, Truck Haul Route**, the haul route for trucks carrying the export materials extends north on Via Marina to Washington Boulevard, then east on Lincoln Boulevard and south on the Marina Freeway.

**Table 3.0-4
Neptune Marina Woodfin Suite Hotel and Timeshare Resort Project
Construction Assumptions**

Project	Demolition Period (months)	Grading Period (months)	Construction Period (months)	Total Construction Time (months)	Operational Date	Cut/Fill/Soil Export (cubic yards)
Parcel 10R	2	3 4	28 24	33 30	Sept 2012 November 2013	340 cy fill 112 124,000-650 cy cut 112 124,000-650 cy export
Parcel FF	0.5	3 2	17 1.5	21 24	Sept 2012 October 2013	35 cy fill 29 31,600 cy cut 29 31,600 cy export
Parcel 9U	0	3 3	21 27	24 30	Jan 2011 November 2013	0 cy fill 38 44,000 cy cut 36 42,200 cy export
Wetland Park	0	3	9	12	Jan 2011 October 2012	4,500 cy fill 2,700 cy cut no export

Note:: Assumes that with the exception of the wetland park, all projects would commence construction following project approval no earlier than January 2009. The wetland park would commence construction approximately one year after the initiation of construction on Parcel 9U.

3.1.3.1.7.1 Demolition of Existing Landside Uses: Neptune Marina Parcels 10R and FF

Six months prior to any demolition activity, the property management company will prepare a notice that will be sent to all residential tenants occupying the Neptune Marina Parcel 10R site informing tenants of the proposed project's timing of construction. The management company will, at the time of notice, provide all interested tenants lease availability information for other Marina del Rey properties it currently manages. The management company will coordinate with other Marina del Rey property management companies to collect information for interested tenants on rental options in the Marina area. To further assist tenants, the Neptune Marina management company will schedule an on-site lease fair to provide Marina del Rey specific rental availability information to all interested tenants.

Prior to the commencement of demolition, appropriate testing for asbestos containing materials and lead-based paint within the existing structures will be completed. Abatement of identified materials would occur prior to building demolition. The initial stage of demolition requires that construction crews disconnect and remove all utilities. A variety of equipment would be employed during the demolition

phase including cranes, tractors, pneumatic hammers, drills, and similar types of equipment. Debris would be trucked from the site for disposal at unclassified landfills that accept these waste materials including, but not limited to, ~~the Azusa Land Reclamation Co. Landfill in Azusa, Nu Way Live Oak and Reliance Pit No. 2 Landfills in Irwindale, Sunshine Canyon, Long Beach Southeast Resource Recovery (SERRE), Peck Road, or Reliance Pit #2 Landfills~~ or other appropriate landfills located within reasonable hauling distance from the project site, which may be located outside Los Angeles County. Building materials containing asbestos and lead based paint, if any, would be handled, transported, and disposed of in accordance with applicable laws and regulations prior to building removal.

3.1.3.1.7.2 Demolition of Existing Anchorage: Neptune Marina Parcel 10R.

Similar to the process followed for tenants of the existing apartment buildings, six months prior to any demolition activity associated with the existing anchorage, the management company will prepare a notice that will be sent to all boat space tenants informing tenants of the proposed project's timing of construction. The management company will, at the time of notice, provide all boat owners space availability information for the 16 other anchorages and the associated dock masters that occur within Marina del Rey. To further assist boat owners, the management company will schedule a meeting that would provide boat owners information regarding available dock space at other marinas proximal to Marina del Rey and appropriate contact points.

Concurrent with the landside demolition and construction activities for the Neptune Marina Parcel 10R, the existing Neptune Marina boat anchorage would be removed. Prior to dock and space demolition, utilities would be disconnected and all utility lines and surface dock attachments would be removed. Construction crews would work from the docks and from small boats using small mechanical hand tools to disassemble the docks into manageable pieces that can be floated to the seawall and removed from the water by a landside crane.

Once the majority of boat spaces and main walks have been removed, work would commence on the extraction of concrete guide piles. Guide piles would be removed utilizing clamping devices suspended from a crane on a floating barge, transferred to another barge, and transported by sea to a disposal site. To reduce marina sediments being stirred up during guide pile extraction, standard measures of surrounding the guide piles with the steel sheath would be used.

A debris boom would also be installed around all waterside construction areas to capture and control floating debris, and debris catchers would be utilized in places where falling debris is unavoidable. During pile removal, floating siltation curtains would be employed around the work area to reduce

and/or prevent sediment from crossing the curtains into surrounding waters. Water quality impacts associated with demolition of the existing marina are addressed in **Section 5.3, Hydrology and Drainage**.

Basins within the study area would remain open during demolition work. Navigational aids, buoys, and lights would be installed, as per US Coast Guard requirements, prior to demolition activity to ensure safe access within all channels of the small-craft harbor.

3.1.3.1.7.3 Demolition: Woodfin Suite Hotel and Timeshare Resort

Given that Parcel 9U is currently vacant, no demolition is required. Site clean-up and minor fine grading would be required prior to the initiation of grading activities.

3.1.3.1.7.4 Construction of Proposed Landside Uses: Neptune Marina Parcels 10R and FF

Following demolition of the existing improvements, excavation for the parking garages would commence. It is expected that construction of the parking garage would require de-watering during excavation. During construction, de-watering wells and pumps would be placed as needed to draw down the water table as necessary. If necessary, groundwater would be pumped to settling basins, filtered, and then pumped to the existing storm water drain system. These actions will require the applicant to obtain a separate National Pollutant Discharge Elimination System (NPDES) Permit for Ground Water Discharge from the Regional Water Quality Control Board (RWQCB). This permit ensures that water ultimately discharged to the small-craft harbor meets all NPDES requirements for suspended solids, organic material, and other water quality parameters. Permanent de-watering is not proposed. Water quality impacts associated with demolition of the existing marina are addressed in **Section 5.3, Hydrology and Drainage**.

Once excavation is complete, foundations would be constructed and framing of the proposed project would begin upon completion of the parking garage. Equipment and materials during construction would be stored on site in a construction-staging area as described below.

Construction Phasing and Staging: If Parcels 10R and FF receive simultaneous approval, then construction will commence as defined below.

Parcel FF will be used for parking and staging during landside demolition of improvements on Parcel 10R. Upon completion of the demolition phase, Parcel FF will be used for parking and staging during construction of the foundation system on Parcel 10R.

Upon completion of the foundation system construction on Parcel 10R, the same type of construction will commence on Parcel FF and any parking and/or staging that need to be moved will be temporarily re-located to Parcel 10R.

Upon completion of the foundation system on Parcel FF, shoring, de-watering, excavation, and garage construction operations will commence on Parcel 10R. Upon completion of this work on Parcel FF, all parking and staging will be re-located back to Parcel FF.

Parking structures on Parcel 10R will be completed in the following sequence: Building 3, Building 2, followed by Building 1. Upon completion of these structures, shoring, de-watering, excavation, and garage construction will commence on Parcel FF for Building 4. During this sequence of construction, staging will be provided on Parcel 10R at the pool and view corridor/drive aisle locations. Off-site parking may be required.

While garage construction commences on Parcel FF, framing operations will commence on Parcel 10R. As noted above, staging can be accomplished on Parcel 10R at the pool and view corridor locations, but off-site parking may be required unless vehicles are allowed to park within the completed garage structures at Building 1, 2, or 3.

Upon completion of the garage construction on Parcel FF, staging of materials will be re-located to the elevated courtyards on Building 4 and view corridor/drive aisle locations at Parcel FF to allow commencement of the pool and drive aisle construction on Parcel 10R. All construction parking will be in designated parking structures.

3.1.3.1.7.5 Construction of Proposed Anchorage: Neptune Marina Parcel 10R

The new Neptune Marina Anchorage (inclusive of private boat spaces situated adjacent to Parcel 10R and public-serving spaces situated adjacent to Parcel 9U) would be constructed concurrently with construction of the landside improvements on the site. All dock floatation elements would be pre-manufactured off site and trucked to the project site. Sections of the dock system would be assembled on land and hoisted onto the water for final assembly. A barge with crane and diesel hammer would be used to install the new guide piles. Utilities would then be installed in addition to accessories such as dock boxes, cleats, rub strips, etc. The gangway ramps to access the docks would be constructed concurrently. A debris boom would be installed around all waterside construction areas to capture any control floating debris, and debris catchers would be utilized in places where falling debris is unavoidable.

3.1.3.1.7.6 Construction of Woodfin Suite Hotel and Timeshare Resort

Construction of the Woodfin Suite Hotel and Timeshare Resort Project would not be phased. Construction is anticipated to take 24 months, beginning no earlier than ~~January 2009~~ May 2011. Given this schedule, anticipated buildout of the project would occur ~~in at the end 2011-2013~~ at the earliest.

Following minor fine grading necessary to clear the project site, excavation for the parking garages would commence. Construction of the parking garage may require de-watering during excavation. During construction, de-watering wells and pumps would be placed as needed to draw down the water table as necessary. If necessary, groundwater would be pumped to settling basins, filtered, and then pumped to the existing storm water drain system. These actions will require the applicant to obtain a separate NPDES Permit for Ground Water Discharge from the RWQCB. This permit ensures that water ultimately discharged to the small-craft harbor meets all NPDES requirements for suspended solids, organic material, and other water quality parameters. Permanent de-watering is not proposed.

Once excavation is complete, the entire basement would be constructed, as well as shoring for the basement walls. After construction of the basement, the westerly portion of the basement would be used for material staging for the tower. The tower crane to be used for steel erection and material hauling would then be erected in the low rise building area (north end of Parcel 9U).

After the high-rise steel is fully erect, steel work on the low-rise building would be completed. During this phase on construction, delivery of the material to the site will occur parallel to the site on Via Marina. The promenade deck facing the marina will be built last, when the hotel tower frame is erected. After construction of the hotel and promenade deck is completed, then construction of the wetland park would be initiated. Staging for the construction of the wetland park will be done on the designated "park" property outside of the existing wetland area.

3.1.3.1.8 Wetland Restoration: Neptune Marina Project

With the change from "Open Space" " to "Residential" on Parcel FF, which would be developed with an apartment building, a restored wetland and public upland park would be constructed on the southern 1.46 acres of Parcel 9U. A public-serving anchorage adjacent to the park as described below is also included as a public recreational amenity. Consistent with project objectives, it is intended that the ground floor of the hotel, the adjacent pedestrian promenade, the restored wetland and upland park and the public-serving boat spaces combine to create an interactive public node. Legacy Partners will fund 50 percent of the development costs associated with construction of the restored wetland and public upland park and 100 percent of the public-serving anchorage, while Woodfin Suite Hotels, LLC will fund the remaining 50 percent of the wetland and upland park (development costs only). Construction of the

wetland park will be shared between the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project lessees. ~~operation~~ Operation and maintenance of the park would be the responsibility of the County of Los Angeles Department of Beaches and Harbors.

The restored wetland and public upland park will consist of a newly established muted tidal wetland in the southern portion of the park, surrounded by an upland buffer, portions of which could be used as public open space. The muted tidal wetland area will be approximately 0.47 acre in size; the minimum buffer, as measured from the edge of the salt marsh will be 25 feet. The upland buffer will be planted with appropriate transitional vegetation. A protective fence will be installed in a location and manner deemed appropriate for the biological and visitor functions. In the upland buffer, appropriate interpretive signage will be installed to enhance the visitor experience. Turf block areas would provide a sturdy space for group lectures, seating for visitors bringing lawn chairs for bird watching etc., and maintenance vehicles.

Expanded and enhanced seasonal pond habitat with fringing riparian scrub would be planted within the enhanced wetland area. These plant species would replace the non-native species currently found on site. The proposed seasonal pond habitat and fringing riparian scrub would be planted in zones of appropriate wetness. Variations in microtopography within the basin will allow for establishment of mosaic of seasonal pond habitat with associated fringing riparian scrub.

To provide seawater to the wetland based on tidal influence, a tidal exchange pipe would connect the wetland with the westernmost portion of Marina del Rey Basin B. At this time, it is anticipated that the pipe would be placed in an excavated trench and the pipe would pass through the existing seawall.

No lighting shall be permitted. No parking within the park is to be permitted. Monitoring of the vegetation for five years is an integral part of the wetland proposal. A wetland restoration plan is included as **Appendix 35.05**.

Provisions of the LCP allow the parkland beneath the hotel/timeshare resort's view corridor within the wetland park as appropriate compensation for the loss of the designated Parcel FF open space. The view corridor requirements of the Marina del Rey Specific Plan specify that such corridors maintain an unobstructed view of the bulkhead edge, masts, and horizon to pedestrians and passing motorists. Thus, it is the air space above the land that falls within the view corridor and not the land itself. Parking lots are expressly allowed beneath required view corridors per the LCP, provided that the required views are maintained. A project may satisfy parking requirements beneath a required view corridor, and, therefore, open space land uses may also be satisfying the view corridor requirement.

The Marina del Rey Specific Plan requires that new residential development provide compensatory recreational facilities to offset use of existing Marina park and recreational facilities. The Specific Plan expressly provides mitigation credit for public parkland inclusion. It also provides credit for those portions of public view corridors not designated for public access. Thus, the Specific Plan expressly allows view corridors to satisfy more than one regulatory requirement.

In addition, it is consistent with the California Environmental Equality Act for a single mitigation measure to address more than one impact. For example, a traffic demand management plan can reduce vehicle trips, parking demand, mobile emissions, and mobile noise impacts. Similarly, the wetland park and view corridor described above can address potential project impacts with respect to wetlands, open space, public recreation, and compatibility with land use plans.

3.1.3.1.9 Public Boat Spaces Adjoining Parcel 10R and 9U Neptune Marina Project

Legacy Partners will also fund and develop a public-serving anchorage to adjoin the Parcel 9U bulkhead. This anchorage would contain approximately 524 lineal feet of new public dock area (it is estimated that the public anchorage would provide berthing for between 7 and 11 transient vessels, depending on the vessels' size, inclusive of a dinghy berthing area at the northerly end of the anchorage). As planned, this project component would result in the construction of public dock space accommodating between seven and 11 boats plus dinghy moorage. The anchorage would provide four sewage pumpout stations with a single sewage pump that would drain to the existing sewer system. A plan illustrating the location and arrangement of these spaces is provided on **Figure 3.0-22, Public-Serving Boat Slip Plan**. These new public spaces would be compliant with ADA and new California Department of Boating and Waterways safety requirements.

3.1.3.1.10 Green Building Program

The County of Los Angeles has recently enacted a suite of three ordinances—Green Building, Drought-Tolerant Landscaping and Low Impact Development—designed to reduce long-term environmental impacts that will save on both water and energy costs; these ordinances became effective on January 1, 2009. Both the Neptune Marina Apartments and Anchorage and the Woodfin Hotel Suite and Timeshare Resort projects will comply with the provisions of the County's new Green Building and Drought-Tolerant Landscaping ordinances; however, the projects are exempt from the County's new Low-Impact Development (LID) ordinance, because the projects had received the Department of Beaches & Harbors' Design Control Board's conceptual approval prior to the January 1, 2009 effective date of the LID ordinance. With the incorporation of certain design features, the projects will benefit from a reduction in energy consumption of at least 15 percent, consistent with the requirements of the Green Building

ordinance. The following project design features will be incorporated into the final building plans: alternative transportation considerations such as encouraging bicycle transit and fuel efficient vehicles; restore wetland habitat within dedicated open space area; reduce stormwater runoff through incorporation of best management practices; use of roofing materials with high solar reflectance index; water efficient landscaping through use of drought-tolerant species and smart irrigation controllers; use of high efficient toilets; use of energy efficient equipment and appliances; use of non-ozone depleting refrigerants; incorporation of recycled and rapidly renewable building materials; monitoring of ventilation systems; development of indoor air quality management plans; use of low-emitting volatile organic compound materials (e.g., in sealants and paints); and provision of individual control for lighting and comfort control systems.

3.1.3.2 Overview of Site Plan: Neptune Marina Parcel 10R

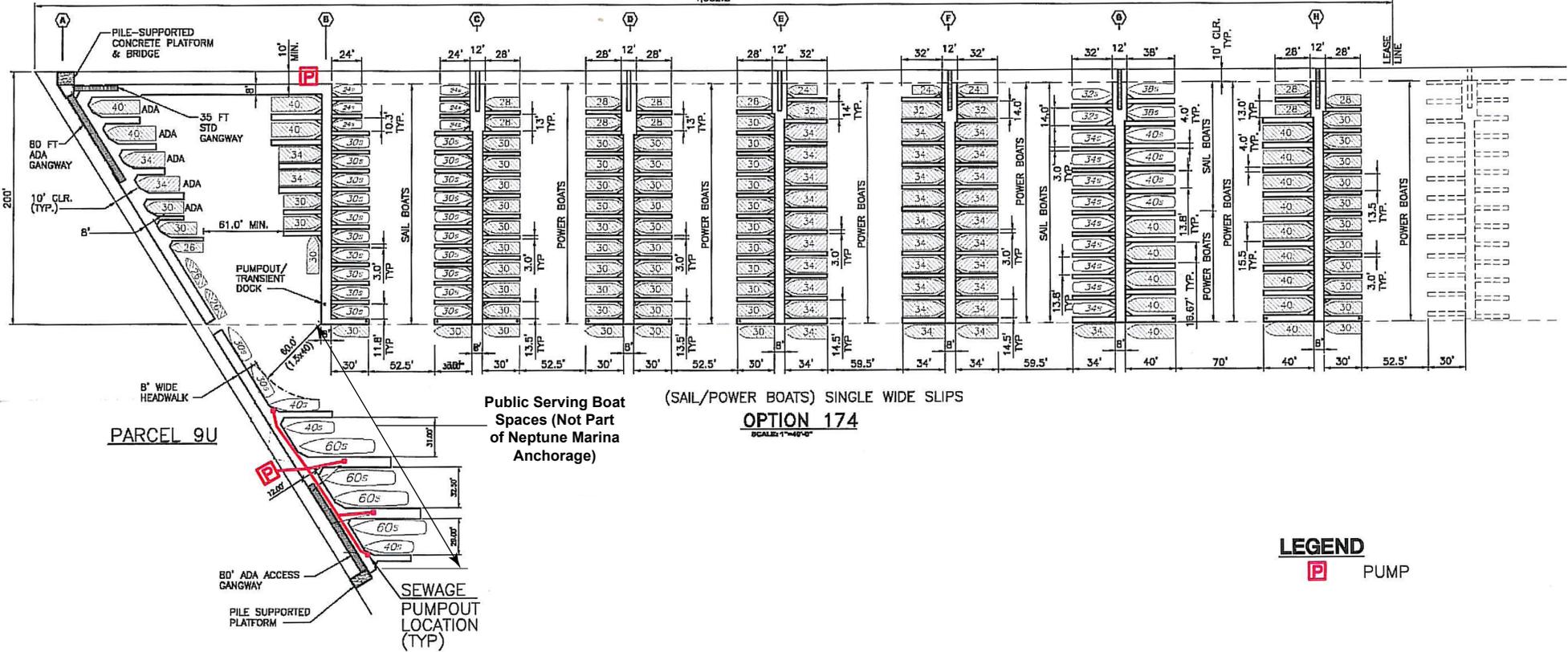
Figure 3.0-23, Site Plan: Neptune Marina Parcel 10R, illustrates a conceptual site plan for the proposed Neptune Marina Parcel 10R. The Neptune Marina Parcel 10R includes development on both the landside and waterside portions of Marina del Rey Parcel 10R. The landside component of the proposed project consists of a 400-unit, multi-family apartment community comprised of three structures. These structures front Marquesas Way and Via Marina and are located southeast of the intersection of those two marina streets.

Emphasis has been placed on a design that balances public and private views of the marina and enhancement of the pedestrian experience adjacent to the water. A major feature of the project that unifies and integrates the residential and adjacent marina is a pedestrian walkway between the buildings and the anchorage, the "Waterfront Stroll Promenade." Located along the waterside perimeter of marina Basin B, the 28-foot-wide Waterfront Stroll Promenade would feature color-patterned paving, landscaping, pedestrian seating and marina-styled fencing and lighting. The entire length of the Waterfront Stroll Promenade would be open to the public. The length of this feature adjacent to the southern and northern portions of the project site is approximately 1,437 feet. The proposed project would feature landscaped planters and other features constructed immediately adjacent to the public Waterfront Stroll Promenade and would also function as a fire lane.

A total of three, four-story wood-framed structures (Building 1, 2, and 3) would house the 400 proposed residential units, with parking provided in two-level parking garages below the residences. Structure height would not exceed 55 feet for Buildings 1 and 2, and would not exceed 60 feet for Building 3 (exclusive of appurtenant, screened roof-top equipment) when measured per County standards.

PARCEL 10R

1,082.2'



PARCEL 9U

Public Serving Boat Spaces (Not Part of Neptune Marina Anchorage)
 (SAIL/POWER BOATS) SINGLE WIDE SLIPS
OPTION 174
 SCALE: 1"=40'-0"

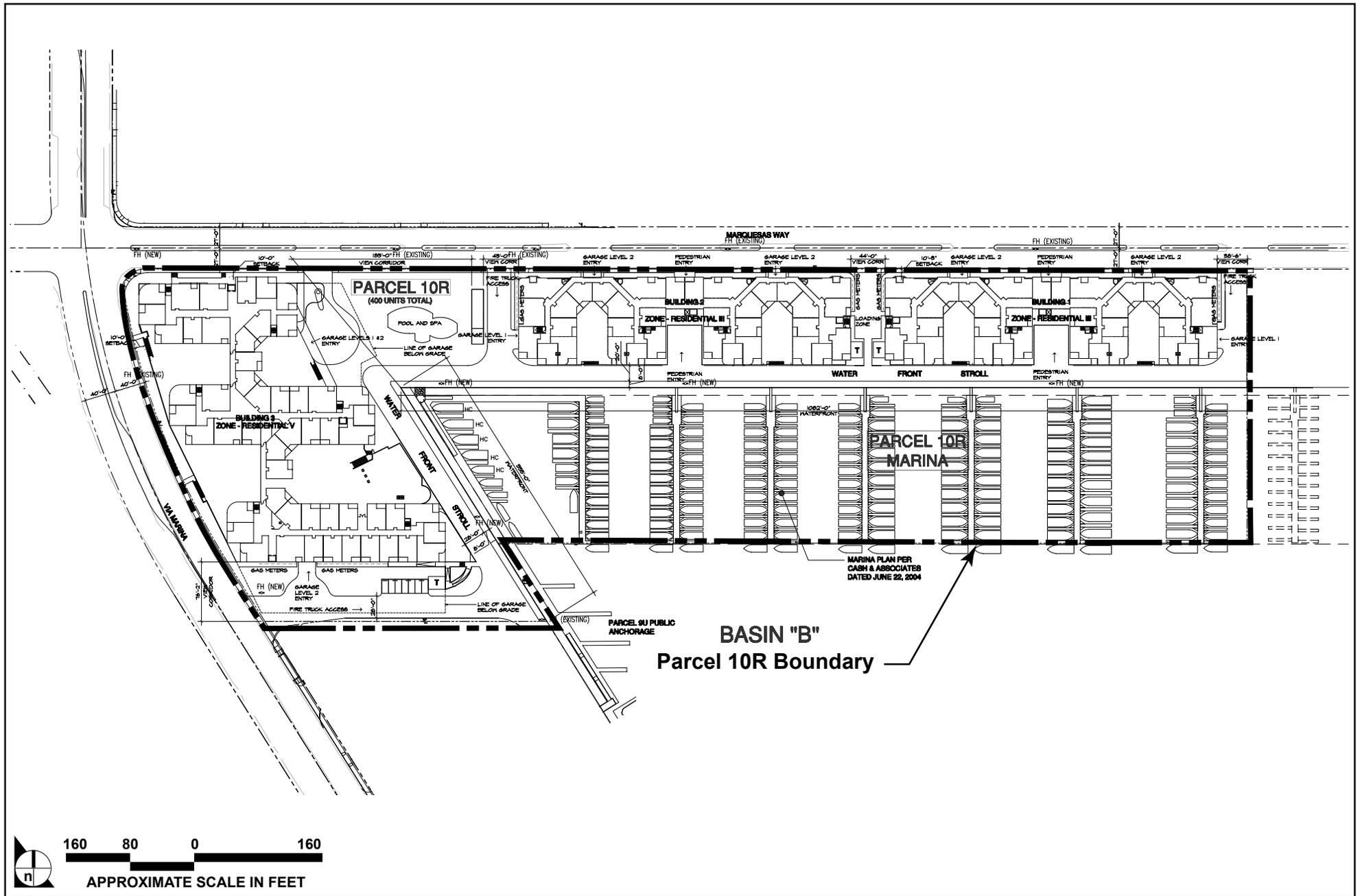
LEGEND
 PUMP



SOURCE: C&A Architects. - May 2009

FIGURE 3.0-22

Public-Serving Boat Slip Plan



SOURCE: Thomas P. Cox: Architects, Inc. – August 2008

FIGURE 3.0-23

Site Plan: Neptune Marina Parcel 10R

The waterside portion of the project involves the construction of a new modern boat anchorage. The anchorage would provide users water and electrical service and a sewage pump out station. The 161 proposed boat slips are wide enough to accommodate modern boat design and boats of up to 40 feet. Larger boats could potentially be accommodated at 13 proposed end-tie spaces (161 + 13 = 174 total marina spaces).

The Neptune Marina Parcel 10R would, therefore, consist of 400 residential dwelling units and 174 boat spaces. As there are 136 existing apartments and 198 boat spaces presently on site, completion of the proposed project would result in a net increase of 264 apartment units and a net reduction of 24 boat spaces.

3.1.3.2.1 Residential Units: Neptune Marina Parcel 10R

As proposed, the Neptune Marina Parcel 10R consists of three new residential structures each being four stories above two levels of parking (**Figure 3.0-12**). Within the three structures, 400 residential units are proposed that include rental apartment and rental townhome units. The design of the residential component of the project emphasizes a relationship to the waterfront and was conceptually approved by the DCB on June 29, 2006. Apartment building orientations have been configured to ensure direct pedestrian access to the Waterfront Stroll Promenade, a portion of which fronts on the newly constructed Neptune Marina Anchorage. There are multiple points for the public to have unimpeded access to the Waterfront Stroll Promenade and the marina. The apartment structures have been separated to the maximum extent feasible to allow for unobstructed view corridors. The various vehicular, non-vehicular and fire access entries on the property would also provide pedestrian access to the promenade and are located between buildings. All access points would be treated with enhanced paving and landscaping open to the Waterfront Promenade Stroll.

One- and two-bedroom apartment and townhome rental units are proposed in 11 different floor-plan configurations. As defined above, 400 residential units are planned. Of these, 246 are one-bedroom apartment units (62 percent of the total) in four different floor-plan configurations; 70 are two-bedroom apartment units (18 percent of the total) in two different floor-plan configurations; and 84 are two-bedroom townhomes (21 percent of the total) in five different floor-plan configurations. **Table 3.0-5, Neptune Marina Parcel 10R – Description of Proposed Residential Units by Type**, provides a breakdown of the number of residential units by product type and their approximate size.

Table 3.0-5
Neptune Marina Parcel 10R
Description of Proposed Residential Units by Type

Type of Unit	Quantity Proposed	Size of Unit (sq. ft.)
1-Bedroom Apartment; Type A-1	146	716
1-Bedroom Apartment; Type A-2	48	650
1-Bedroom Apartment; Type A-3	48	849
1-Bedroom Apartment; Type A-4	4	745
2-Bedroom Apartment; Type B-1	42	1,122
2-Bedroom Apartment; Type B-2	28	1,282
2-Bedroom Townhome; Type T-1	20	1,359
2-Bedroom Townhome; Type T-1b	8	1,543
2-Bedroom Townhome; Type T-1c	10	1,529
2-Bedroom Townhome; Type T-2	20	1,691
2-Bedroom Townhome; Type T-3	26	1,653
TOTAL	400	

Figure 3.0-4 through **Figure 3.0-6** provide illustrations of conceptual floor plans for each of the three structures that comprise the Neptune Marina Parcel 10R. As stated above, the proposed new waterfront community would consist of three, four-story Type V, 1-hour, fully sprinklered, wood-framed residential buildings, which would be, constructed over a two-level parking garage. Structures are designed with open-air courtyards and perimeter landscaping which is incorporated into the public Waterfront Stroll Promenade. As noted, structure height would not exceed 55 feet for Buildings 1 and 2, and would not exceed 60 feet for Building 3 (exclusive of appurtenant, screened roof-top equipment) measured per County standards. **Figure 3.0-8** provides representative conceptual building elevations, while **Figure 3.0-10** illustrates representative conceptual building cross sections for each proposed structure.

3.1.3.2.2 Access and Parking: Neptune Marina Parcel 10R

For residents, vehicular access (**Figure 3.0-20**) to and from the proposed residential development would be taken from eight locations. Seven points of access are located off Marquesas Way and one point of vehicular access is located along Via Marina south of Marquesas Way. For residential visitors, vehicular access to the interior portions of the project is via three signed entrances on Marquesas Way. Vehicular access for boaters and users of the anchorage is via one entrance on Via Marina (to the south). Pedestrian

access to the public Waterfront Stroll Promenade is via a series of signed paved walkways between the buildings.

In each of the three proposed buildings, parking is provided in two-level garages built below each building. The lowest level of parking is entirely subterranean on the street side of the building while the upper level of parking would be built at ground level. All parking garages would be screened by architectural and landscaping features, primarily by terraced, landscaped planters along the street and by landscaping along the promenade.

A total of 908 parking spaces would be provided throughout the Neptune Marina Parcel 10R. Parking for apartment residents, their guests and the anchorage boaters would be segregated. Among the three user types, residents would be provided parking within the two-level garages through the use of security gate enclosures provided at both levels in all three buildings. Parking for guests is provided within the garages of each building. A parking area for boaters and users of the anchorage is provided in the southern end of the garage in Building 3 (Parcel 10R). **Table 3.0-6, Neptune Marina Parcel 10R – Description of Parking Facilities by Building**, shows the breakdown of parking spaces by building.

**Table 3.0-6
Neptune Marina Parcel 10R
Description of Parking Facilities by Building**

Building	Resident Spaces	Guest Spaces	Boater Spaces	Total
I (10R)	189	28	0	217
II (10R)	189	28	0	217
III (10R)	299	44	131	474
TOTAL	677	100	131	908

3.1.3.2.3 Boat Anchorage: Neptune Marina Parcel 10R

The proposed Neptune Marina Anchorage is situated to the waterside of Buildings 1, 2 and 3 and would be constructed concurrent with the apartment buildings. The existing 198-space anchorage would be removed and replaced with 174 new spaces (a net reduction of 24 spaces). A more complete description of the proposed Neptune Marina Anchorage is provided under heading 3.1.3.1.2.

3.1.3.2.4 Amenities: Neptune Marina Parcel 10R

The residential component of the project would feature a variety of recreational amenities, including the following: a recreational lounge, game room, business center, and restrooms. In addition to these facilities, the residential component of the project would include offices for the harbormaster and leasing offices. A more complete description of project amenities is provided under heading 3.1.3.1.1.

3.1.3.2.5 View Corridors: Neptune Marina Parcel 10R

The Neptune Marina Parcel 10R incorporates four view corridors. Of the four view corridors, three corridors allow vistas of Marina del Rey Basin B from Marquesas Way (southerly). The fourth view corridor allows vistas of Marina del Rey Basin B from Via Marina (easterly).

Provisions of the certified LCP tabulate the area of required view corridor based on the length of the parcel's water frontage and the proposed building height. Within Parcel 10R (based on the length of the parcel's water frontage and a proposed building heights of 55 and 60 feet), the LUP requires 360 linear feet of view corridor. As proposed, the project would provide 389 linear feet. As such, the project, as planned on Parcel 10R, is consistent with view corridor provisions of the Marina del Rey Land Use Plan that call for public and private views of the marina from perimeter roadways.

3.1.3.2.6 Infrastructure Improvements: Neptune Marina Parcel 10R

All infrastructure and utilities needed to serve the Neptune Marina Parcel 10R are located on site or in perimeter roadways. The project would construct or participate in the construction of all improvements necessary to serve the proposed project, including improvements to off-site facilities.

Water improvements consist of a looped fire main connecting to an existing 12-inch main located along Marquesas Way at the easterly end of the project site and a connection to an existing 12-inch water main located along Via Marina at the western end of the project. Once off-site and on-site improvements are completed, the existing and proposed water mains would have the capacity to adequately serve the Neptune Marina Parcel 10R. Planned off- and on-site improvements are described in detail in **Section 5.9, Water Service**, of this draft EIR.

Proposed sewer improvements would require the abandonment of approximately ~~1,044,660~~ linear feet within Parcel 10R and 54 feet within Marquesas Way right-of-way of existing 10-inch sewer main and 240 linear feet of an existing 8-inch line within Parcel 10R. Approximately 500 linear feet within Marquesas Way and 160 linear feet within Via Marina ~~600 linear feet~~ of new 10-inch sewer would be constructed to service the project. An additional 180 linear feet of new 10-inch line and approximately

~~710 linear of a new 8-inch sewer line. The precise alignment of the proposed main has not been defined,~~ but would occur within existing site boundaries of Parcel 10R. These improvements are described in detail in **Section 5.8, Sewer Service**, of this draft EIR.

Other on-site improvements involve construction of the storm water drainage network and utility systems. All infrastructure would be designed and constructed in accordance with policies and standards defined by the County of Los Angeles Department of Public Works.

3.1.3.3 Overview of Site Plan: Neptune Marina Parcel FF

Figure 3.0-24, Site Plan: Neptune Marina Parcel FF, illustrates a conceptual site plan for the proposed Neptune Marina Parcel FF. The Neptune Marina Parcel FF includes development on the landside portion of Marina del Rey Parcel FF. The landside component of the proposed project consists of a 126-unit, multi-family apartment community comprised of one structure. The structure fronts Marquesas Way and Via Marina and is located northeast of the intersection of those two marina streets. It is important to note that implementation of Components 4 and 5, or other equivalent mitigation, are associated with the approval of development on the Neptune Marina Parcel FF (Component 2).

Emphasis has been placed on a design that balances public and private views of the marina and enhancement of the pedestrian experience adjacent to the water. A major feature of the project that unifies and integrates the residential and adjacent marina is a pedestrian walkway between the buildings and the existing marina, the "Waterfront Stroll Promenade." Located along the waterside perimeter of marina Basins C, the 28-foot-wide Waterfront Stroll Promenade would feature color-patterned paving, landscaping, pedestrian seating and marina-styled fencing and lighting. The entire length of the Waterfront Stroll Promenade would be open to the public and is connected to the existing unimproved marina walkway system. The length of this feature adjacent to the northern portion of the project site is approximately 200 feet in length. The proposed project would feature landscaped planters and other features constructed immediately adjacent to the public Waterfront Stroll Promenade.

One four-story wood-framed structure (Building 4) would house 126 proposed residential units, with parking provided in two-level parking garages below the structure. Structure height would not exceed 55 feet (exclusive of appurtenant, screened rooftop equipment, parapets and architectural features) when measured from finished grade elevations along Via Marina and Marquesas Way.

The Neptune Marina Parcel FF would, therefore, consist of 126 residential dwelling units. The project site is currently developed with an underutilized surface parking lot. Therefore, completion of the proposed project would result in a net increase of 126 apartment units.

3.1.3.3.1 Residential Units: Neptune Marina Parcel FF

As proposed, the Neptune Marina Parcel FF consists of one new residential structure being four stories above two levels of parking. Within the structure, 126 residential units are proposed that include apartment and townhome rental units. The design of the residential component of the project emphasizes a relationship to the waterfront with views to both Basins B and C within Marina del Rey. Apartment building orientations have been configured to provide pedestrian access to the Waterfront Stroll Promenade. There are multiple points for the public to have unimpeded access to the Waterfront Stroll Promenade and the marina. All drive aisles into the project provide views between the proposed buildings to the marina. The various vehicular, non-vehicular, and fire access entries on the property would also provide pedestrian access.

One- and two-bedroom apartment and townhome rental units are proposed in nine different floor-plan configurations. As defined above, 126 residential units are planned. Of these, 84 are one-bedroom apartment units (67 percent of the total) in four different floor-plan configurations; 18 are two-bedroom apartment units (14 percent of the total) in two different floor-plan configurations; and 24 are two-bedroom townhomes (19 percent of the total) in three floor-plan configurations. **Table 3.0-7, Neptune Marina Parcel FF – Description of Proposed Residential Units by Type**, provides a breakdown of the number of residential units by product type and their approximate size.

Figure 3.0-7 provides an illustration of the conceptual floor plan that comprises the Neptune Marina Parcel FF. As stated above, the proposed new waterfront community would consist of one, four-story Type V, 1-hour, fully sprinklered, wood-framed residential building which would be constructed over a two-level parking garage. The structure is designed with an open-air courtyard and perimeter landscaping that is incorporated into the public Waterfront Stroll Promenade. Structure height would not exceed 55 feet (exclusive of appurtenant, screened rooftop equipment) measured per County standards. **Figure 3.0-9** provides a representative building elevation, while **Figure 3.0-10** illustrates a representative building cross section.

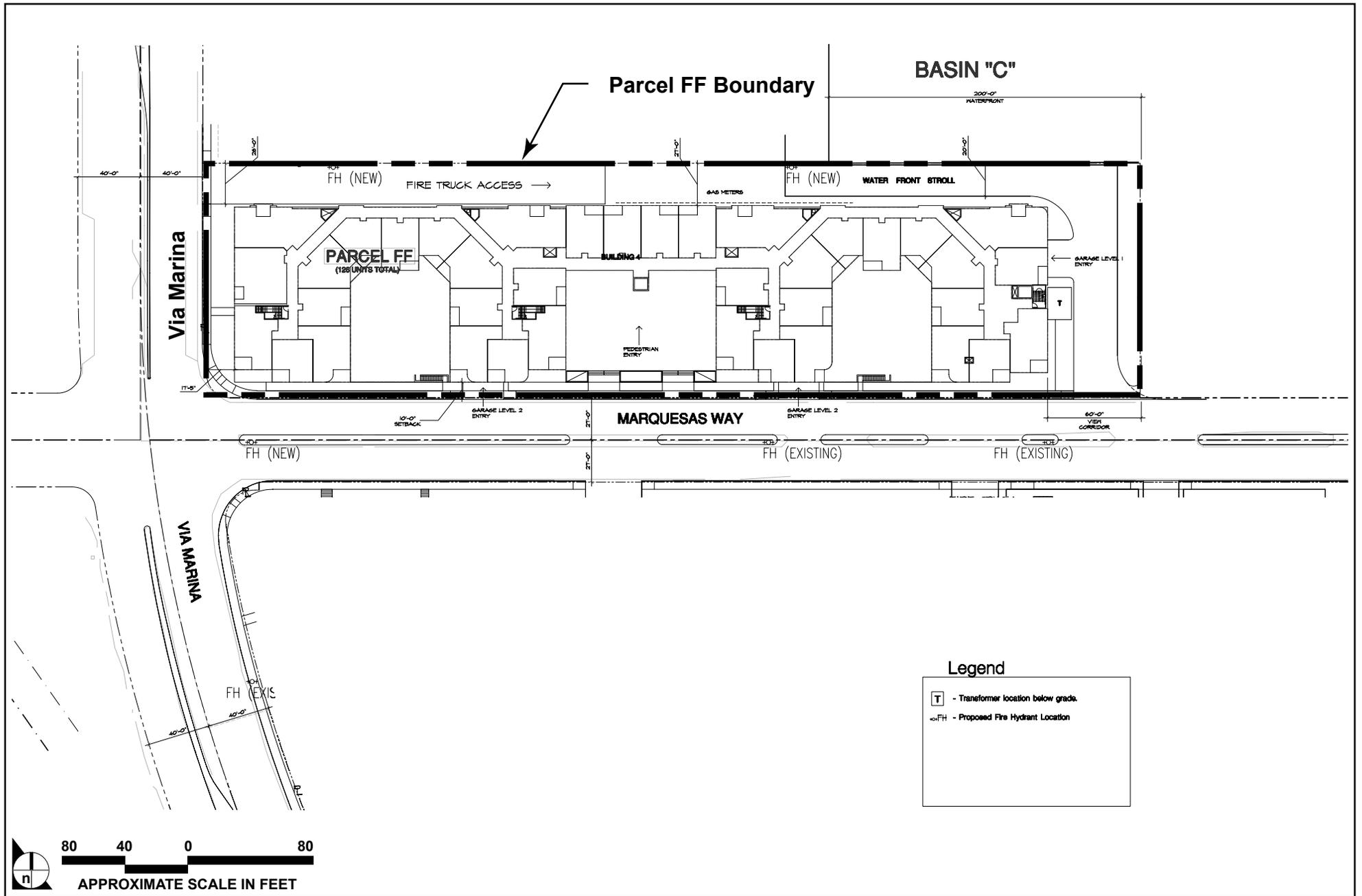


FIGURE 3.0-24

Site Plan: Neptune Marina Parcel FF

Table 3.0-7
Neptune Marina Parcel FF
Description of Proposed Residential Units by Type

Type of Unit	Quantity Proposed	Size of Unit (sq. ft.)
1-Bedroom Apartment; Type A-1	50	716
1-Bedroom Apartment; Type A-2	16	650
1-Bedroom Apartment; Type A-3	16	849
1-Bedroom Apartment; Type A-4	2	745
2-Bedroom Apartment; Type B-1	4	1,122
2-Bedroom Apartment; Type B-2	14	1,282
2-Bedroom Townhome; Type T-1	8	1,359
2-Bedroom Townhome; Type T-2	8	1,691
2-Bedroom Townhome; Type T-3	8	1,653
TOTAL	126	

Note: All project units are rental units.

3.1.3.3.2 Access and Parking: Neptune Marina Parcel FF

For residents, vehicular access (**Figure 3.0-20**) to and from the proposed residential development would be taken from three locations located off Marquesas Way. For visitors, vehicular access to the interior portions of the project is via signed entrances on Marquesas Way. Pedestrian access to the public Waterfront Stroll Promenade is via a series of signed paved walkways between the buildings.

In the proposed building, parking is provided in two-level garages built below the residences. The lowest level of parking is entirely subterranean on the street side of the building while the upper level of parking would be built at ground level. All parking garages would be screened by architectural and landscaping features, primarily by terraced, landscaped planters along the street and by landscaping along the promenade.

A total of 242 parking spaces would be provided throughout the Neptune Marina Parcel FF in the structured parking garage. Parking for apartment residents and their guests would be segregated. Among the two user types, residents would be provided parking within the two-level garages through the use of security gate enclosures. Parking for guests is provided in non-gated areas within the garage.

Table 3.0-8, Neptune Marina Parcel FF – Description of Parking Facilities by Building, shows the breakdown of parking spaces in the proposed project.

Table 3.0-8
Neptune Marina Parcel FF
Description of Parking Facilities by Building

Building	Resident Spaces	Guest Spaces	Boater Spaces	Total
IV (FF)	210	32	0	242
TOTAL	210	32	0	242

3.1.3.3 Amenities: Neptune Marina Parcel FF

The residential component of the project would feature a variety of recreational amenities, including the following: a recreational lounge, game room, business center, and restrooms. A more complete description of project amenities is provided under heading 3.1.3.1.1.

3.1.3.4 View Corridors: Neptune Marina Parcel FF

The Neptune Marina Parcel FF incorporates a view corridor at the eastern end of the proposed structure (Building 4). View corridors allow vistas of Marina del Rey Basin C from Marquesas Way (northerly). Based on the length of the parcel's water frontage and a proposed building height of 55 feet, the LUP requires 53 linear feet of view corridor. As proposed, the project provides 60 linear feet. As such, the project as proposed on Parcel FF is consistent with view corridor provisions of the Marina del Rey Land Use Plan that call for public and private views of the marina from perimeter roadways.

3.1.3.5 Infrastructure Improvements: Neptune Marina Parcel FF

All infrastructure and utilities needed to serve the Neptune Marina Parcel FF are located on site or in perimeter roadways. The project would construct or participate in the construction of all improvements necessary to serve the proposed project, including improvements to off-site facilities.

Water improvements would consist of a looped fire main connecting to an existing 12-inch main located along Marquesas Way at the easterly end of the project site and connecting to an existing 12-inch water main located along Via Marina at the western end of the project. Once off- and on-site improvements are completed, the existing and proposed water mains would have the capacity to adequately serve the

Neptune Marina Parcel FF. Planned off- and on-site improvements are described in detail in the **Section 5.9, Water Service**, of this draft EIR.

Proposed sewer improvements would require the ~~abandonment of approximately 1,040 linear feet of connecting of a sewer lateral to an existing 10-inch sewer main within the boundaries of Parcel FF. In addition, approximately 130 linear feet of existing 10-inch sewer main within Parcel FF would be abandoned. Approximately 600 linear feet of new 10 inch sewer would be constructed to serve the Neptune Marina Parcel FF. The precise alignment of the proposed main has not been defined, but would occur within existing site boundaries.~~ These improvements are described in detail in **Section 5.8, Sewer Service**, of this draft EIR.

Other on-site improvements involve construction of the storm water drainage network and utility systems. All infrastructure would be designed and constructed in accordance with policies and standards defined by the County of Los Angeles Department of Public Works.

3.1.3.4 Overview of Site Plan: Woodfin Suite Hotel and Timeshare Resort

Figure 3.0-25, Site Plan: Woodfin Suite Hotel and Timeshare Resort, illustrates a conceptual site plan for the proposed Woodfin Suite Hotel and Timeshare Resort. The project consists of a 19-story building with 288 hotel and timeshare units (a minimum of 152 hotel suites and 136 timeshare suites), meeting rooms, a restaurant and bar, a spa, an exercise room with a pool, and associated hotel operations space, such as the lobby, hallways, elevator shafts, mechanical rooms, offices, and laundry, maintenance and custodial facilities. The building would also feature an outdoor terrace and a large third floor deck with a pool, both of which would overlook the waters of the marina. The project includes a six-level parking garage adjoining the hotel/timeshare structure to the north (five parking levels above ground and one parking level underground), designed to accommodate up to 21 “self-park” parking spaces and 339 valet-only parking spaces (total of 360 parking spaces provided on site).

The intent of the site plan was to concentrate development on the northern portion of the project site and preserve the southern portion of Parcel 9U as a wetland park and adjacent upland buffer. All ground floor uses would be accessible to the public. It is intended that the ground floor of the hotel, the adjacent pedestrian promenade, the wetland park, and the public-serving boat spaces combine to create an interactive public node.

Consistent with the certified LCP, the height of the hotel/timeshare structure would not exceed 225 feet (exclusive of appurtenant, screened rooftop equipment, parapets and architectural features) when measured from finished grade elevations along Via Marina. The structure would front Via Marina and

would be located south of the intersection of Via Marina and Marquesas Way and north of the intersection of Via Marina and Tahiti Way.

3.1.3.4.1 Proposed Hotel/Timeshare Resort Building Layout

Floors one, two and three of the hotel/timeshare resort structure would include all non-residential areas of the buildings, including loading areas, hotel lobby and offices, a restaurant and bar, a spa, an exercise room with a pool, outdoor function areas, meeting rooms and a large conference room/ballroom. Cross sections of the project are illustrated on **Figures 3.0-13 to 3.0-15**.

The ground floor of the project would include the lobby and registration/reception area, elevator bays (four bays), the business center, hotel/timeshare offices, a hotel restaurant and bar, kitchen, sundry shop, meeting rooms and restrooms. The exterior of the ground floor of the hotel/timeshare structure (**Figure 3.0-16**) would provide for hotel/timeshare ancillary uses consisting of outdoor dining areas, the motor court (drop-off and valet parking area), the entrance to the parking area, and service docks for truck loading. All ground floor uses would be accessible to the public. It is intended that the ground floor of the hotel/timeshare resort, the adjacent pedestrian promenade, restored wetland and upland park and the public-serving boat spaces combine to create an interactive public node.

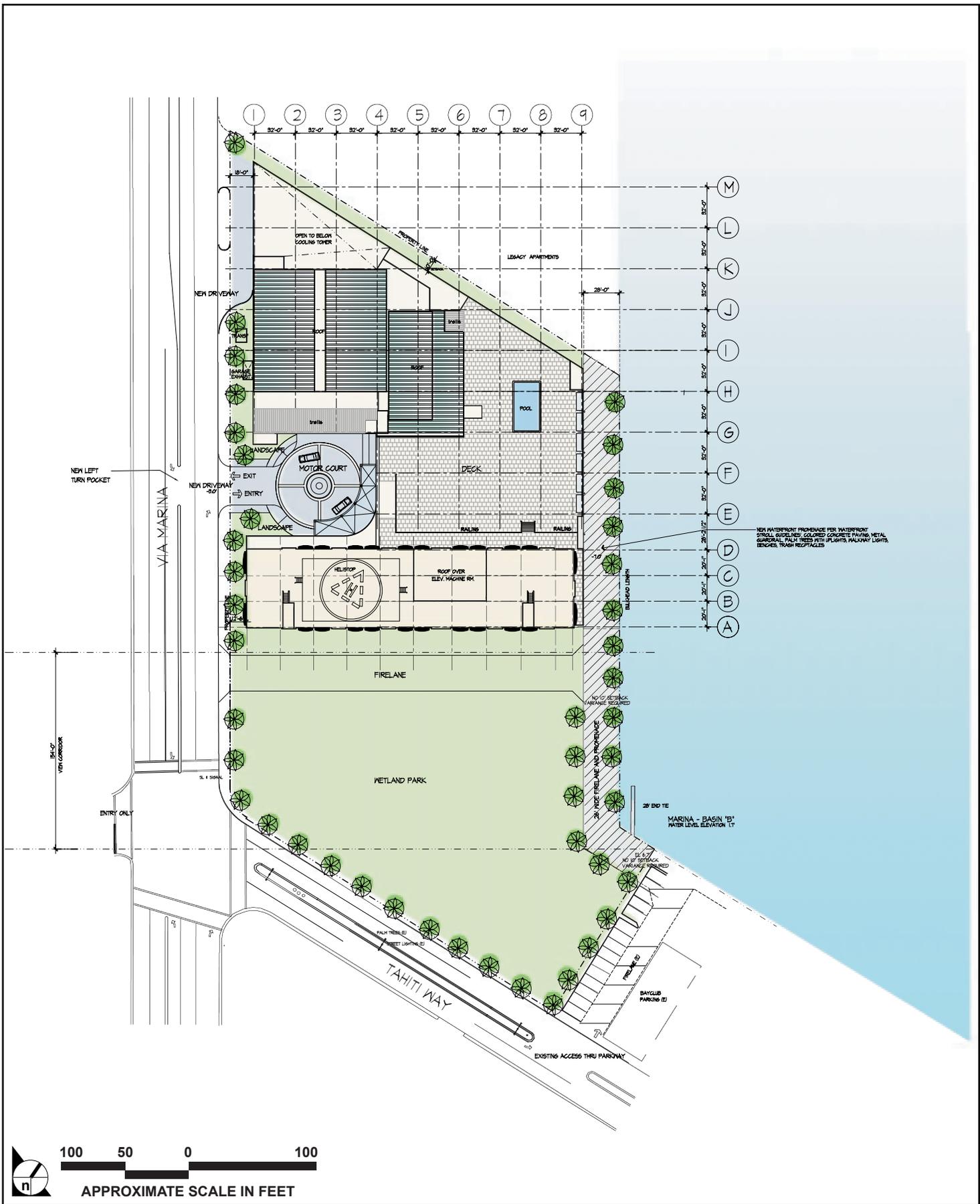
Second floor uses are illustrated on **Figure 3.0-17**. As shown, second floor uses would include a ballroom, meeting rooms, and banquet kitchen. The third floor of the building would contain an exercise room/spa that would open to the outdoor pool deck.

The hotel/timeshare portion of the building would incorporate portions of the second and third floors and floors 4 through 19. An example of the layout of these floors is presented in **Figure 3.0-18**. Other uses on floors 4 through 19 would include the elevator lobby, a service lobby, and housekeeping rooms.

An emergency helistop is proposed on the roof of the hotel/timeshare high-rise structure consistent with County Code requirements (Fire Code 1107.9). Other screened roof elements include mechanical equipment, chillers, cooling towers, a service lobby, elevator machine room, and an emergency generator and boiler.

3.1.3.4.2 Hotel and Timeshare Units

In total, 288 overnight residential units are proposed as part of the project. There are three general types of unit proposed for the building: hotel units, one-bedroom timeshare units and two-bedroom timeshare units. As proposed, there would be 152 hotel units, 68 one-bedroom timeshare units and 68 two-bedroom timeshare units. Each hotel and timeshare unit would have one to two bedrooms, a sitting area, kitchenette and bathroom, and an exterior balcony.



SOURCE: Gin Wong Associates – February 2006

FIGURE 3.0-25

Site Plan: Woodfin Suite Hotel and Timeshare Resort

All of the project's proposed 136 timeshare suites are intended to and are designed to be used on a temporary basis by guests. Moreover, the Woodfin Suite Hotel and Timeshare Resort will be a full-service facility, with a single set of support facilities (check-in desk, reception, restaurants, cocktail lounge, etc.) for both timeshare and hotel users. Therefore, there will be no distinction in terms of services between hotel patrons and timeshare patrons.

The Woodfin Suite Hotel and Timeshare Resort will enhance visitor-serving uses by providing much needed additional overnight accommodations through both the hotel and timeshare component. Some key operational aspects of the project include:

- The timeshare suites will not be in a separate tower from the hotel suites; rather, both the hotel and timeshare suites will be on same floors (4 through 19).
- Rental of both the timeshare suites and hotel suites will be handled in a similar manner by on-site management (electronic keys issued by the front desk, concierge services, housekeeping, front-desk check-in/out).
- Timeshares will be made available to the general public through the hotel reservation system when not used by timeshare vacationers.
- Timeshare suites will be marketed through an exchange program and through the hotel, and will be rented at comparable rates to equivalent hotel suites.
- Timeshare suites will be sold in one week intervals.
- Stays in timeshare suites will be limited to no more than a total of four weeks annually.
- The Woodfin timeshare component will remain a commercial use and will comply with the timeshare laws governed by the California Department of Real Estate.

3.1.3.4.3 Access and Parking: Woodfin Suite Hotel and Timeshare Resort

Vehicular access to and from the Woodfin Suite Hotel and Timeshare Resort Project would be taken from two locations (refer to **Figure 3.0-21**). One access point located on Via Marina would provide an entry to the motor court and the parking garage. The second access point is also located along Via Marina (north of access to the motor court) that provides access to the service entry and loading docks.

Parking for the Woodfin Suite Hotel and Timeshare Resort would be provided in a six-level parking structure located north of the hotel/timeshare building. Five floors would be above and one floor would be below finished grade. The first three floors of the garage would connect with the ground, second and third floors of the hotel/timeshare building. The parking garage is designed to accommodate up to 21 fee-based "self-park" parking spaces open to the public and 339 valet-only parking spaces (total of 360 parking spaces provided on-site).

3.1.3.4.4 Amenities: Woodfin Suite Hotel and Timeshare Resort

3.1.3.4.4.1 Guest and Visitor Amenities

The Woodfin Suite Hotel and Timeshare Resort project would feature a variety of patron- and visitor-serving recreational amenities, including a restaurant and bar, a business center, meeting rooms, sundry shop, and exercise room/spa. Outdoor amenities would include pool facilities and a dining terrace overlooking the Waterfront Stroll Promenade and the Marina.

3.1.3.4.4.2 Public Amenities

A major feature of the project that unifies and integrates the hotel/timeshare resort with the Marina is the continuation of the Waterfront Stroll Promenade from Legacy Partners' project across the entire waterfront extent of Parcel 9U. Located along the waterside perimeter of the proposed hotel/timeshare resort and planned adjacent public wetland park project at Parcel 9U, the 28-foot-wide public Waterfront Stroll Promenade will feature special color-patterned paving, landscaping, pedestrian seating and marina-styled fencing and lighting and would also serve as fire access. The length of the Waterfront Stroll Promenade on Parcel 9U is approximately 386 feet. The hotel/timeshare structure will feature landscaped planters and other features constructed immediately adjacent to the public Waterfront Stroll Promenade. Landscaped areas are also proposed along the western, eastern, and southern margins of the project and in various perimeter areas surrounding the hotel/timeshare structure. Public access to the Marina and the Waterfront Stroll Promenade will be available along a walkway on the southeastern side of the building. This walkway would be treated with enhanced paving and landscaping similar to that of the Waterfront Stroll Promenade. As defined above, all ground floor uses would be accessible to the public. It is intended that the ground floor of the hotel, the adjacent pedestrian promenade, the wetland park, and the public-serving boat spaces combine to create an interactive public node.

3.1.3.4.5 View Corridors: Woodfin Suite Hotel and Timeshare Resort

The Woodfin Suite Hotel and Timeshare Resort Project (Parcel 9U), incorporates one view corridor on Parcel 9U, south of the hotel. The primary view corridor allows vistas of Marina del Rey Basin B from Via Marina through the Parcel 9U public park/wetland. Per the LCP, based on the proposed 225-foot height of the hotel structure (excluding appurtenant rooftop structures), a view corridor totaling 40 percent of the length of the site is required. For the 386-foot-long site, a minimum 154-foot-wide view corridor is required. The project plans for 154 linear feet of view corridor through the Parcel 9U public park/wetland to be situated to the south of the proposed hotel/timeshare resort structure. Because the project provides the required 154 feet of public view corridor on Parcel 9U (the minimum required in this instance to

achieve the proposed hotel/timeshare structure height), the project is consistent with provisions of the LCP that call for public and private views of the Marina from perimeter roadways.

3.1.3.4.6 Infrastructure Improvements: Woodfin Suite Hotel and Timeshare Resort

All infrastructure and utilities needed to serve the Woodfin Suite Hotel and Timeshare Resort Project are located proximal to each project site. The project would construct or participate in the construction of all improvements necessary to serve their proposed uses, including improvements to off-site facilities. Improvements proposed for Parcel 9U consist of a new fire main connecting to the existing 12-inch water main located on Tahiti Way. Given these improvements, the existing and proposed water mains would have the capacity to adequately service the project.

Proposed sewer improvements associated with project would require approximately 210 linear feet of new 8-inch sewer to service the Woodfin Suite Hotel and Timeshare Resort Project. The precise alignment of the proposed main has not been defined, but would occur within existing site boundaries. Other on-site improvements would involve the construction of the storm water drainage network, and utility systems. All infrastructure would be designed and constructed in accordance with the policies and standards set forth by the County of Los Angeles Department of Public Works.

3.1.3.5 Overview of Site Plan: Restored Wetland and Public Upland Park

3.1.3.5.1 Overview: Wetland Restoration/Public Open Space Area

Accompanying the change of "Open Space" designated land use of Parcel FF, which would be developed with an apartment building, negating the ability to potentially develop Parcel FF with a future public park, Legacy Partners Neptune Marina, LP, will help to fund the development of a public wetland and upland park of approximately 1.46 acres within the southern portion of Parcel 9U (Legacy Partners will fund 50 percent of the development costs associated with construction of the wetland and upland park, while Woodfin Suite Hotels, LLC will fund the remaining 50 percent of these development costs). A wetland restoration plan has been prepared and is attached in full as **Appendix 35.50**. The wetland park will consist of a newly established muted tidal wetland area in the southern portion of the park, surrounded by an upland buffer (**Figure 3.0-26, Conceptual Wetland Mitigation Plan**). The muted tidal wetland area shall be approximately 0.47 acre in size, while the upland buffer shall be 0.99 acre and planted in appropriate transitional vegetation. A protective fence shall be installed in a location and manner deemed appropriate for the biological and visitor functions. In the upland buffer, appropriate interpretive signage will be installed to enhance the visitor experience. Turf block areas would provide a sturdy space for group lectures, seating for visitors bringing lawn chairs for bird watching etc., and maintenance vehicles.

Expanded and enhanced seasonal pond habitat with fringing riparian scrub would be planted within the enhanced wetland area. These plant species would replace the non-native species currently found on site. The proposed seasonal pond habitat and fringing riparian scrub would be planted in zones of appropriate wetness. Variations in microtopography within the basin will allow for establishment of mosaic of seasonal pond habitat with associated fringing riparian scrub.

No lighting or parking will be permitted within the park. Parking for park visitors will be conveniently located within the adjacent hotel/timeshare resort's parking area (as noted, up to 21 fee-based self-parking spaces will be provided within the hotel/timeshare resort project, for use by the public). Until the hotel is built, a temporary parking lot would be allowed on the hotel portion of Parcel 9U in a non-paved area. Monitoring of the vegetation for five years is an integral part of the wetland proposal.

3.1.3.5.2 Infrastructure Improvements: Wetland Restoration Area/Public Open Space Area

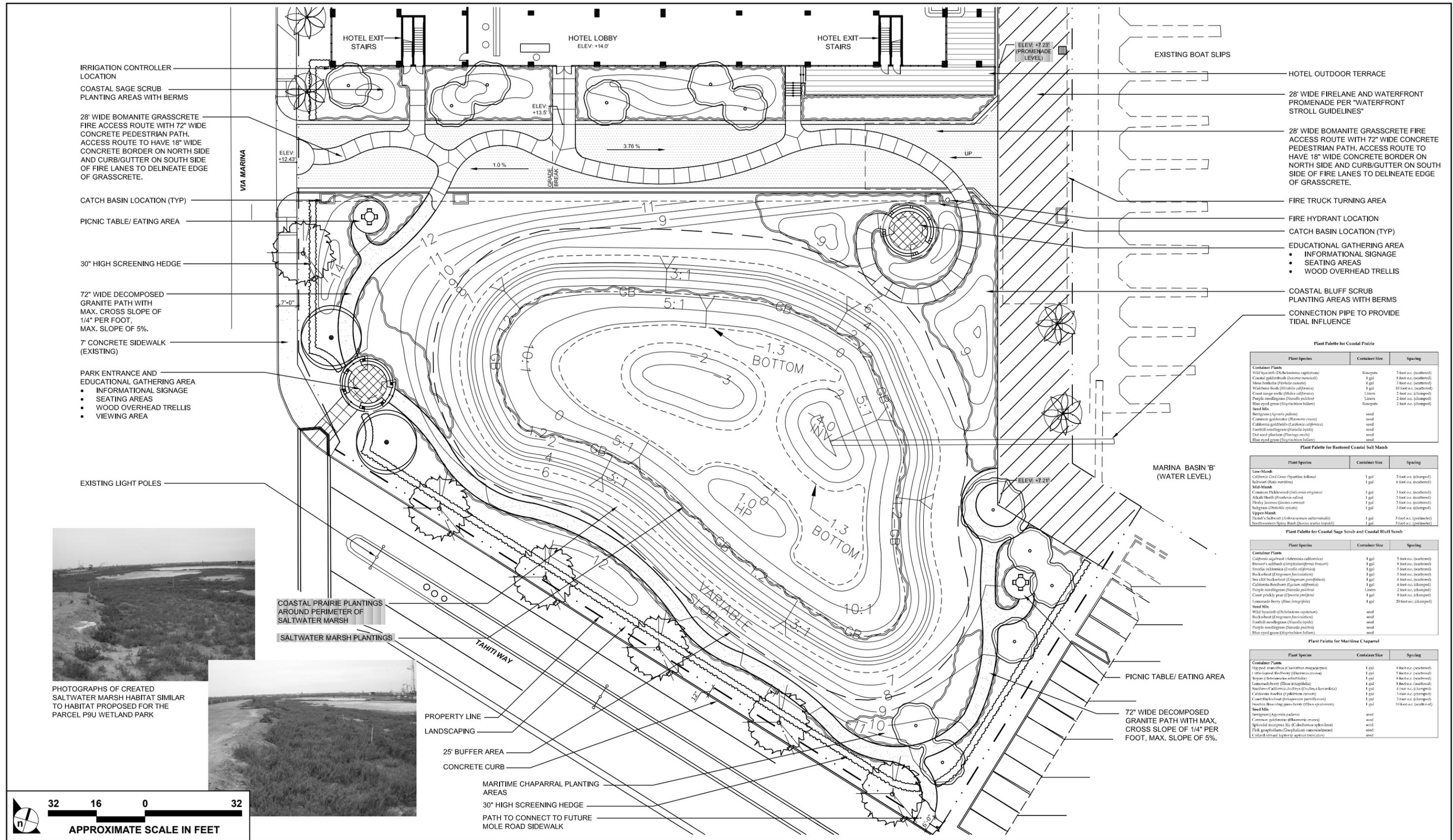
All infrastructure and utilities needed to serve the wetland restoration/public open space area are located on site or in perimeter roadways. The project would construct or participate in the construction of all improvements necessary to serve the proposed project, including improvements to off-site facilities.

3.1.3.5.3 Construction Program: Wetland Restoration Area/Public Open Space Area

Construction of the wetland restoration area/public open space area would occur concurrently with development proposed on Parcel FF and prior to removal of the existing wetland on parcel 9U. As the project site Parcel 9U is vacant, no demolition is required. Construction of the project is anticipated to take 12 months to complete. Given this schedule, anticipated buildout of the project would occur in January of 2011.

3.1.3.6 Project Overview: Public Boat Spaces

To further compensate for the inability to potentially develop a public park on Parcel FF in the future, as a result of developing the parcel with an apartment building, Legacy Partners will fund and develop a public-serving anchorage to adjoin the Parcel 10R and 9U bulkhead. This anchorage would comprise approximately 49,000 square feet or 1.12 waterside or submerged acres in the southwestern portion of Basin B, and would contain approximately 524 lineal feet of new public dock area (it is estimated that the public anchorage would provide berthing for between 7 and 11 transient vessels, depending on the vessels' size, inclusive of berthing for dinghies at the northern end of the anchorage). The new public boat anchorage, which would be compliant with ADA and Department of Boating and Waterways standards, will constitute a significant public boater-serving amenity, as no such public anchorage currently exists within the westerly "residential" portion of Marina del Rey. The anchorage would provide four sewage pumpout stations with a single sewage pump that would drain to the existing sewer system.



SOURCE: Glenn Lukos Associates - July 2008

FIGURE 3.0-26

Conceptual Wetland Mitigation Plan

3.1.4 Project Applications

Section 15124(d)(b) of the *State CEQA Guidelines* indicates that the project description shall include a list of permits and other approvals required to implement the project. A listing, by project component, of project applications required by the County of Los Angeles Department of Regional Planning is below.

Neptune Marina Parcel 10R

- Amendment to the Marina del Rey Land Use Plan
- Coastal Development Permit (CDP)
- Coastal "Approval in Concept" (for Parcel 10R anchorage component) for separate CDP from the Coastal Commission
- Conditional Use Permit
- Variance

Neptune Marina Parcel FF

- Amendment to the Marina del Rey Land Use Plan
- Coastal Development Permit
- Conditional Use Permit
- Variance

Woodfin Suite Hotel and Timeshare Resort

- Coastal Development Permit
- Conditional Use Permit
- Parking Permit
- Tentative Tract Map
- Variance

Wetland Restoration

- Coastal Development Permit

Public-Serving Anchorage

- Coastal "Approval in Concept" for a separate CDP from the Coastal Commission

3.1.5 Decision-Making Agencies

Section 15124(d)(a) of the *State CEQA Guidelines* indicates that the project description shall include a list of agencies that are expected to use the EIR in their decision making. Agencies are limited to the County of Los Angeles and the California Coastal Commission.

5.0 EXISTING CONDITIONS, PROJECT IMPACTS, AND MITIGATION MEASURES

PURPOSE

Section 5.0 of this ~~draft~~ Recirculated Draft EIR provides information on the project's existing conditions, the impact potential, pertinent mitigation measures, and cumulative issues. The existing conditions component defines the environmental conditions that currently exist on and near the project site(s); project impacts are defined as the project's effects on the existing environment. Mitigation measures are designed to reduce a project's impact potential. Each mitigation measure is identified as either one that is proposed as part of the project or one that is recommended by this EIR. Technical topics addressed in the EIR were defined by the Lead Agency. The purpose of this section is to inform readers of the type and magnitude of the project's environmental impact and how such impacts would affect the existing environment.

Section 5.0 of this draft EIR describes existing conditions on and near the **Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project** site. Due to the different types of permits required and Lead and Responsible Agency actions (reference **Section 3.0, Project Description**), four levels of impact analysis are provided in **Section 5.0**. Each of the six technical sections of this recirculated document (i.e., traffic, noise, air quality, visual resources, ~~quality, etc.~~ sewer and solid waste services), analyzes impacts associated with the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project. This analysis is followed by individual analysis of impacts associated with the Neptune Marina Project Parcel 10R, Neptune Marina Project Parcel FF, Woodfin Suite Hotel/Timeshare Resort, a Wetland Park, and between nine-7 and 11 public-and transient-serving boat spaces adjacent to Parcel 9U.

SUMMARY

The Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project ~~“proposed project” or “project”~~ site is located in an urbanized area. Proposed development on the site and existing development in nearby off-site areas contain a variety of land uses, some of which are considered noise sensitive. Increases in noise of less than 3 decibels as measured on an A-weighted scale (dB(A)) Community Noise Equivalent Level (CNEL) are not usually perceptible to the human ear. However, changes from 3 to 5 dB(A) may be noticed by some individuals who are sensitive to changes in noise.

Construction noise would affect nearby noise sensitive residential uses ~~proximal to the site~~ and noise sensitive uses along the proposed haul route. Exterior noise levels during site construction of up to ~~94-100~~ dB(A) could be experienced at some noise sensitive ~~receptor locations~~ uses that would have with direct lines of sight to ~~the construction site~~ pile driving. Noise levels generated ~~from the project during construction stages~~ would periodically exceed County standards for exterior noise levels during the workday. To mitigate construction noise, all construction activities would comply with the County of Los Angeles Plans and Policies for noise control Noise Control Ordinance (Ordinance No. 11773) ~~so that~~ construction noise would be limited to normal working hours when many residents in the Marina del Rey area ~~are~~ would be away from their homes. Nevertheless, construction noise would represent a temporary, but significant impact, as noise levels would periodically exceed County standards, even after mitigation.

During project operation, it is not anticipated that interior noise levels on or off the project site would exceed County standards. The primary source of noise during project operation would be ~~associated with vehicular project traffic, which could affect off-site noise sensitive uses along nearby roadways~~. Operation of the proposed project would introduce an additional 3,104 daily vehicle trips ~~to on local roadways situated proximal to the project site~~ (1,017 ~~45~~ trips from the Neptune Marina Apartments - Parcel 10R, 499 trips from the Neptune Marina Apartments - Parcel FF, and 1,538 trips from the Woodfin Suite Hotel and Timeshare Resort - Neptune Marina Parcel 9U, and the balance of the trips from the wetland park and public boat slips). Off-site noise level increases generated by proposed project traffic would be ~~up to 2~~ less than 3.0 dB(A) CNEL. The largest change in noise levels would occur along Marquesas Way east of Via Marina along the project frontage. However, this increase would not be audible and would not exceed the off-site mobile source community noise significance threshold ~~of significance and would be below the level of human perception~~. Therefore, no significant on- or off-site noise impacts would occur as a result of project operation.

Noise level increases attributable to traffic generated by cumulative development would be less than 3 dB(A) CNEL at all modeled locations. Receptors within 50 feet of Marquesas Way would experience the greatest cumulative

~~traffic noise increase; however, this increase would not be audible and would not exceed the community noise significance threshold of 3.0 dB(A) have the largest change, where noise levels as a result of traffic generated by cumulative development would increase from 53.8 dB(A) to 56.7 dB(A), an increase of 2.9 dB(A). This increase would not exceed the off-site mobile source thresholds of significance for this analysis and would be below the level of human perception. Therefore, no significant off-site cumulative noise impacts would occur as a result of cumulative projects development. However, cumulative noise impacts during construction would be significant and the project's contribution to these cumulative impacts would be cumulatively considerable.~~

5.2.1 INTRODUCTION

5.2.1.1 Characteristics of Noise

Noise is usually defined as unwanted sound. It is an undesirable by-product of human society's normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment.

Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). The human ear does not respond uniformly to sounds at all frequencies, being less sensitive to very low and high frequencies than to medium frequencies that correspond with human speech. In response, the A-weighted noise level (or scale) has been developed. ~~This A-weighted sound level, referenced in units of dB(A),~~ It corresponds better with people's subjective judgment of sound levels. ~~This A-weighted sound level is called the "noise level" referenced in units of dB(A).~~ Because noise is measured on a logarithmic scale, a doubling of sound energy results in a 3 dB(A) increase in noise levels. ~~However, changes~~ Changes in a community noise level of less than 3 dB(A) are not typically ~~noticed~~ perceived by the human ear.¹ Changes from 3 to 5 dB(A) may be noticed by some individuals who are sensitive to changes in noise. A 5 dB(A) increase is readily noticeable, while the human ear perceives a 10 dB(A) increase in sound level to be a doubling of sound.

Noise sources are classified in two forms: (1) point sources, such as stationary equipment ~~or individual motor vehicles~~; and (2) line sources, such as a roadway with a large number of point sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6 dB(A) for each doubling of distance from the source to the receptor at acoustically "hard" sites and 7.5 dB(A) at

¹ ~~California Department of Transportation, *Technical Noise Supplement; A Technical Supplement to the Traffic Noise Analysis Protocol* (Sacramento, California: October 1998), p. N-41. Highway Noise Fundamentals, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 81.~~

acoustically “soft” sites.² For example, a 60 dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be ~~54~~ 54 dB(A) at 100 feet from the source and 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively.³ Sound levels can also be attenuated by man-made or natural barriers and elevational differences, as illustrated in **Figure 5.2-1, Noise Attenuation Barriers**. Solid walls, berms, or elevation differences typically reduce noise levels by 5 to 10 dB(A).⁴ The noise attenuation provided by typical structures in California is provided below in **Table 5.2-1, Outside to Inside Noise Attenuation**.

**Table 5.2-1
Outside to Inside Noise Attenuation**

Building Type	Noise Reduction - dB(A)	
	Open Windows	Closed Windows ¹
Residences	12	25
Schools	12	25
Churches	20	30
Hospitals/Convalescent Homes	17	25
Offices	17	25
Theaters	20	30
Hotels/Motels	17	25

Note:¹ As shown, structures with closed windows can attenuate exterior noise by a minimum of 25 to 30 dB(A).

Source: Transportation Research Board, National Research Council, Highway Noise: A Design Guide for Highway Engineers, National Cooperative Highway Research Program Report 117, Source: Highway Noise Fundamentals, p. 117.

When assessing community reaction to noise, there is an obvious need for a scale that averages varying noise exposures over time and quantifies the results in terms of a single number descriptor. Several scales have been developed that address community noise levels. Those that are applicable to this analysis are

² California Department of Transportation, Technical Noise Supplement; A Technical Supplement to the Traffic Noise Analysis Protocol (Sacramento, California: October 19980, p. N-27. ~~bid., p. 97.~~ A "hard" or reflective site does not provide any excess ground-effect attenuation and ~~is characteristic of~~ typically includes asphalt, concrete, smooth bodies of water, and very hard packed soils. An acoustically "soft" or absorptive site is ~~characteristic of normal earth and most ground with vegetation~~ characterized by plowed farmland, grass, crops, soft sand, etc.

³ California Department of Transportation, Technical Noise Supplement; A Technical Supplement to the Traffic Noise Analysis Protocol (Sacramento, California: October 19980, p. N-27. ~~bid.~~

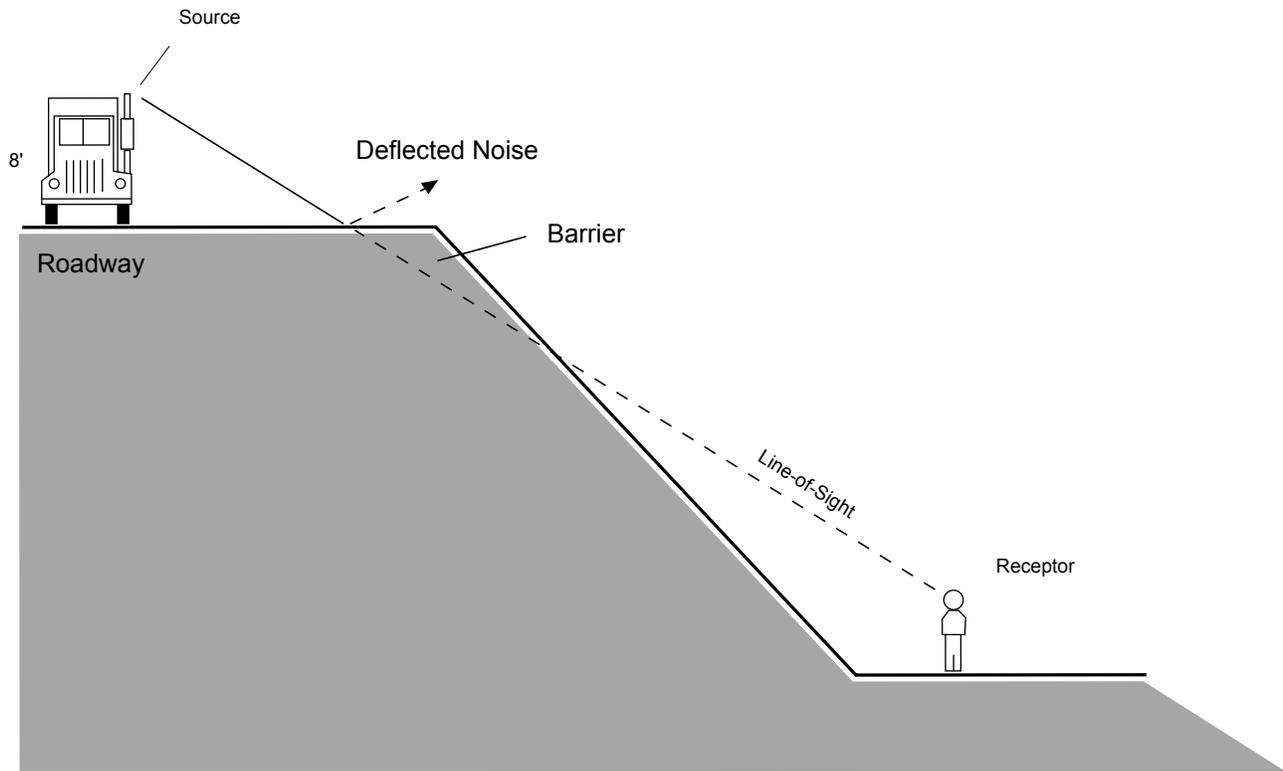
⁴ Highway Noise Mitigation (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 18.

the Equivalent Noise Level (L_{eq}) and CNEL. L_{eq} is the average A-weighted sound level measured over a given time interval. L_{eq} can be measured over any period but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods. CNEL is another average A-weighted sound level measured over a 24-hour period and is adjusted to account for some individual's increased sensitivity to noise levels during the evening and nighttime hours. A CNEL noise measurement is obtained after adding 5 dB to hourly sound levels occurring during the evening hours from 7:00 PM to 10:00 PM and 10 dB to hourly sound levels occurring during the nighttime hours from 10:00 PM to 7:00 AM. The additional five and 10 dB "penalties" decibels are applied to account for peoples' increased sensitivity during the evening and nighttime hours. ~~For example, the logarithmic effect of these additions is that a 60 dB(A) 24-hour L_{eq} would result in a measurement of 66.7 dB(A) CNEL.~~

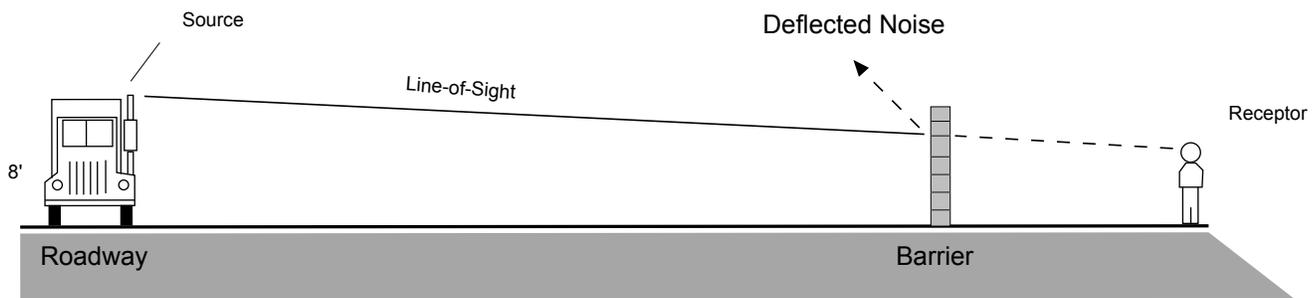
5.2.1.2 Characteristics of Vibration

Vibration is a unique form of noise in that its energy is carried through structures and the earth, whereas noise is carried through the air. Thus, vibration is generally felt and heard. Some vibration effects can be caused by noise; for example, the rattling of windows from 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, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.~~

In general, vibration can be described in terms of displacement, velocity or acceleration. For the purpose of this analysis, vibration will be described in terms of velocity. The peak particle velocity (PPV) or the root mean square (RMS) velocities are usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak of the vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. Units for PPV and RMS are described in inches per second. Vibration in terms of velocity can also be described in a decibel notation — the purpose of which is to compress the range of numbers required to describe vibration. **Figure 5.2-2, Typical Levels of Ground-Borne Vibration**, identifies typical groundborne vibration levels in decibels, RMS velocity amplitude, and PPV.



"Barrier Effect" Resulting from Differences in Elevation.



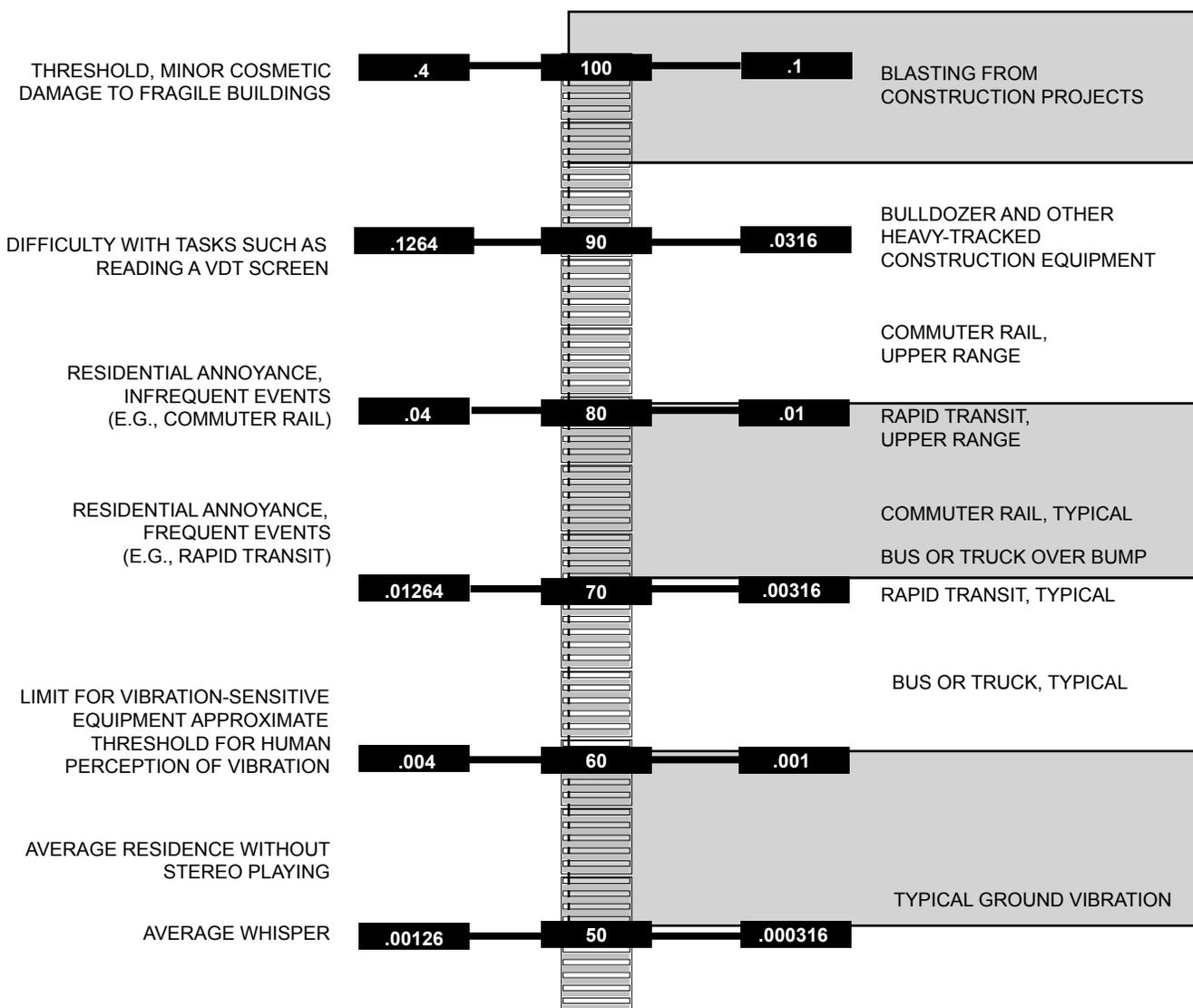
"Barrier Effect" Resulting from Typical Soundwall.

SOURCE: Impact Sciences, Inc. – May 2005

FIGURE 5.2-1

Noise Attenuation Barriers

HUMAN/STRUCTURAL RESPONSE	PPV AMPLITUDE IN INCHES ¹ PER SECOND	VELOCITY LEVEL IN VdB	RMS VELOCITY AMPLITUDE IN ² INCHES/SECOND	TYPICAL SOURCES 50 FEET FROM SOURCE
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¹ PPV is typically a factor 1.7 to 6 times greater than RMS vibration velocity. A factor of 4 was used to calculate noise levels.

² Vibration levels in terms of velocity levels are defined as: $V=20 \times \log_{10} (a/r)$
 V = velocity levels in decibels
 a = RMS velocity amplitude
 r = reference amplitude (accepted reference quantities for vibration velocity are 1×10^{-6} inches/second in the United States)

FIGURE 5.2-2

Typical Levels of Ground-Borne Vibration

The effect of vibration on structures and individuals varies depending on soil type, ground strata and receptor location. Sensitivity to vibration varies from person to person. Peak velocities of 0.01 inch per second RMS are not generally noticeable, while velocities of 0.1 inch per second RMS can be ~~troublesome~~ an annoyance to persons near the vibration source. Traffic-related vibrations and typical construction vibrations pose no threat to buildings and structures.⁵ However, there is potential for architectural damage during continuous pile driving at a PPV somewhere between 0.2 and 2.0 inches/second.⁶ ~~Damage to structures can occur above 0.04 inches per second RMS.~~

5.2.1.3 Noise Analysis Purpose and Methodology

5.2.1.3.1 Purpose of Analysis

The purpose of this noise analysis is twofold: (1) to evaluate the project in terms of design to ensure that the proposed land uses are planned appropriately from a noise perspective; and (2) to evaluate the noise impact of the project during both construction and operation on the surrounding (off-site) area.

5.2.1.3.2 Analysis Methodology

Analysis of the existing and future noise environments presented in this EIR section is based on technical reports, noise monitoring, and noise prediction modeling. Existing stationary noise data are identified based on reviews of available technical reports and noise monitoring. Noise level monitoring was conducted by Impact Sciences, Inc. using a Brüel and Kjær Type 2237 controller Integrating Sound Level Meter and a Larson Davis Model 720 Integrating Sound Level Meter. Both meters satisfy the American National Standards Institute (ANSI) for general environmental noise measurement instrumentation. Future noise levels for stationary activities and equipment were estimated based on available technical reports and literature cited in this EIR section. Noise modeling procedures involved the calculation of existing and future vehicular noise levels along individual roadway segments in the vicinity of the project site. This was accomplished using the Federal Highway Administration's *Highway Noise Prediction Model* (FHWA-RD-77-108). This model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site conditions. Average vehicle noise rates (energy rates) utilized in the FHWA ~~Model~~ model have been modified to reflect average vehicle noise rates

⁵ California Department of Transportation, *Transportation Related Earthborne Vibrations (Caltrans Experiences)*, Technical Advisory, Vibration TAV-02-01-R9601 (Sacramento, California: California Department of Transportation, February 20, 2002), p. 10.

⁶ California Department of Transportation, *Transportation Related Earthborne Vibrations (Caltrans Experiences)*, Technical Advisory, Vibration TAV-02-01-R9601 (Sacramento, California: California Department of Transportation, February 20, 2002), p. 12.

identified for California by the California Department of Transportation (Caltrans).⁷ Caltrans data show that California automobile noise is 0.8 to 1 dB(A) louder than national levels and that medium and heavy truck noise is 0.3 to 3 dB(A) quieter than national levels.⁸ Traffic volumes utilized as data inputs to the noise prediction model were calculated based on information provided by Crain & Associates, the project traffic engineer, and are consistent with the analysis provided in **Section 5.7, Traffic/Access**, of this EIR.

The primary concern regarding on-site noise is to determine whether on-site noise levels are compatible with proposed on-site land uses and land uses surrounding the site. In addition to evaluating on-site noise, this section also evaluates off-site post-project noise conditions at noise-sensitive locations along roadways that would accommodate project traffic. Noise sensitive locations would be those with planned and existing noise-sensitive uses, or those uses that would be most sensitive to an increase in noise levels. Noise sensitive locations are defined as residential uses, transient lodging, schools, libraries, ~~churches~~ places of worship, hospitals, day care centers and nursing homes. At these locations, noise levels were modeled both with and without the project's traffic volumes to determine whether or not project-related traffic would significantly increase noise levels at these locations.

5.2.2 PLANS AND POLICIES

In advance of presenting the existing and future noise environments and the thresholds of significance utilized in this document, plans and policies which pertain to the noise and vibration conditions affecting and affected by the proposed project were reviewed and are discussed below. These plans and policies include (1) the County of Los Angeles General Plan Noise Element, (2) the Los Angeles County Code, (3) the State of California, Department of Health Services, Environmental Health Division Guidelines for Noise and Land Use Compatibility, and (4) the California Noise Insulation Standards of 1988.

~~the County of Los Angeles Noise Control Ordinance (Ord. 11773 and 11778; Section 12.08 of the County Code); (2) the State California Environmental Quality Act (CEQA) Guidelines, Appendix G, Significant Effects; (3) The Los Angeles General Plan Noise Element; and (4) the State of California, Department of Health Services, Environmental Health Division Guidelines for Noise and Land Use Compatibility.~~ 5.2.2.1 County of Los Angeles General Plan Noise Element

The ~~general~~ General plan ~~Plan~~ Noise Element outlines basic goals and policies for the County and its constituent municipalities to follow. It states as a general goal that noise mitigation costs should be

⁷ Rudolf W. Hendriks, *California Vehicle Noise Emission Levels*, (Sacramento, California: California Department of Transportation, January 1987), NTIS, FHWA/CA/TL-87/03.

⁸ Ibid.

assessed to the producers of the noise. Policy 16 of the Noise Element states that the ~~county~~ County should “encourage cities to adopt definitive noise ordinances and policies that are consistent throughout the county.” The Noise Element does not prescribe any specific standards for acceptable noise or vibration levels. Because the Marina del Rey area is in unincorporated Los Angeles County, the specific and applicable noise standards are addressed in the County Noise Control Ordinance (County Code Section 12.08). The Noise Control Ordinance prescribes standards for point ~~and stationary~~ source noise and construction-related noise, as well as general standards for vibration. The County Code does not regulate noise or vibration of motor vehicles. Vehicular noise is regulated under California Vehicle Code, Division 12, Chapter 5, Article 2.5, Sections 27159-27207. The vehicle code defines motor vehicle as “a [self-propelled] device by which any person or property may be propelled, moved, or drawn upon a highway.”

5.2.2.2 County of Los Angeles Noise Control Ordinance (For Point ~~and Stationary~~ Source Noise)

The County Noise Control Ordinance (County Code Section 12.08) provides standards for both interior and exterior noise standards and sets guidelines for a variety of activities. Section 12.08.390 identifies exterior point source noise standards ~~for stationary and point noise sources, and specific~~ specifies noise restrictions, exemptions and variances for ~~exterior point or stationary noise sources~~ these noise sources.⁹ Several of these standards are applicable to the project and are discussed below.

The County Noise Control Ordinance (Section 12.08.390) states that exterior point source noise levels ~~caused by stationary or point noise sources~~ shall not exceed the levels identified below in **Table 5.2-2, County of Los Angeles Exterior Point Source Noise Standards for Stationary and Point Noise Sources**, or ~~the a percentage of the~~ ambient noise level,¹⁰ whichever is greater.

~~The~~ For interior noise levels, the Noise Control Ordinance (Section 12.08.400 ~~of the County Code~~) also states that no activity in a multi-family dwelling unit can cause the interior noise levels (resulting from outside point or stationary sources) within multi-family residential units shall not in a neighboring unit to exceed 45 dB(A) Leq between 7:00 AM and 10:00 PM and 40 dB(A) Leq between 10:00 PM and 7:00 AM. with windows in their normal seasonal configuration. Conventional construction of buildings with the inclusion of fresh air supply systems or air conditioning will normally ensure that interior noise levels are acceptable (reference Table 5.2-1 for noise reduction provided by conventional construction techniques).

⁹ All vehicles of transportation (with a few exceptions) that operate in a legal manner within the public right-of-way, railway, or air space, or on private property are exempt from the standards of the Noise Control Ordinance. These vehicles are regulated by the state.

¹⁰ Ambient noise level is defined as the existing background noise level at the time of measurement or prediction.

The table also includes the County's standards for acceptable exterior noise levels near receptor properties. The exterior noise standards in Table 5.2-2 do not apply to construction activities.

Table 5.2-2
County of Los Angeles Exterior Point Source Noise Standards for ~~Stationary and Point Noise Sources~~

Noise Zone	Designated Noise Zone		Exterior Noise Level dB(A) L_{eq} ¹
	Land Use (Receptor Property)	Time Interval	
I	Noise Sensitive Area ²	Anytime	45
II	Residential Properties	10:00 PM to 7:00 AM	45
		7:00 AM to 10:00 PM	50
III	Commercial Properties	10:00 PM to 7:00 AM	55
		7:00 AM to 10:00 PM	60
IV	Industrial Properties	Anytime	70

Source: County of Los Angeles Noise Control Ordinance, County Code Section 12.08.390.

¹ **Standard No. 1** shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable noise level; or, if the ambient L_{50} exceeds the forgoing level, then the ambient L_{50} becomes the exterior noise level for Standard No. 1.

Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable noise level from Standard No. 1 plus 5 dB(A); or, if the ambient L_{25} exceeds the forgoing level, then the ambient L_{25} becomes the exterior noise level for Standard No. 2.

Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 5 minutes in any hour. Standard No. 3 shall be the applicable noise level from Standard No. 1 plus 10 dB(A); or, if the ambient $L_{8.3}$ exceeds the forgoing level, then the ambient $L_{8.3}$ becomes the exterior noise level for Standard No. 3.

Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 1 minute in any hour. Standard No. 4 shall be the applicable noise level from Standard No. 1 plus 15 dB(A); or, if the ambient $L_{1.7}$ exceeds the forgoing level, then the ambient $L_{1.7}$ becomes the exterior noise level for Standard No. 4.

Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from Standard No. 1 plus 20 dB(A); or, if the ambient L_0 exceeds the forgoing level, then the ambient L_0 becomes the exterior noise level for Standard No. 5.

² Not defined in the County Noise Ordinance. To be designated by the County Health Officer.

5.2.2.3 County of Los Angeles Noise Control Ordinance (For Construction Noise)

The County Noise Control Ordinance (~~County Code~~ Section 12.08.440) identifies specific restrictions regarding construction noise. The operation of equipment used in construction, drilling, repair, alteration or demolition work is prohibited between weekday hours of 7:00 PM to 7:00 AM and anytime on Sundays or legal holidays if such noise would create a noise disturbance across a residential or

commercial real-property line.¹¹ The Noise Control Ordinance further states that the contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in **Table 5.2-3, County of Los Angeles Construction Equipment Noise Restrictions**. All mobile and stationary internal-combustion-powered equipment and machinery ~~is are~~ also required to be equipped with suitable exhaust and air-intake silencers in proper working order.

5.2.2.4 Los Angeles County Code Vibration Guidelines (Section 12.08.560)

The County Code prohibits the operation or permission of operation of any device that creates vibration above the vibration perception threshold (motion velocity of 0.01 in/sec over the range of 1 to 100 hertz) at or beyond the property boundary on private property, or at 150 feet from the source if on a public space or public right of way. These ~~regulations/guidelines~~ apply to impacts associated with both project construction and operation, ~~but do not apply to motor vehicles, which are regulated by the state.~~

**Table 5.2-3
County of Los Angeles Construction Equipment Noise Restrictions**

Residential Structures	Single-Family Residential	Multi-Family Residential	Commercial¹
Mobile Equipment: Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:			
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	75 dB(A) L _{eq}	80 dB(A) L _{eq}	85 dB(A) L _{eq}
Daily, 8:00 PM to 7:00 AM and all day Sunday and legal holidays	60 dB(A) L _{eq}	64 dB(A) L _{eq}	70 dB(A) L _{eq}
Stationary Equipment: Maximum noise level for repetitively scheduled and relatively long-term operation (periods of ten days or more) of stationary equipment:			
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	60 dB(A) L _{eq}	65 dB(A) L _{eq}	70 dB(A) L _{eq}
Daily, 8:00 PM to 7:00 AM and all day Sunday and legal holidays	50 dB(A) L _{eq}	55 dB(A) L _{eq}	60 dB(A) L _{eq}
Business Structures			
Mobile Equipment: Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment:			
Daily, including Sunday and legal holidays, all hours		85 dB(A) L _{eq}	

Source: County of Los Angeles Noise Control Ordinance, County Code Section 12.08.440.

¹ Refers to residential structures within a commercial area. This standard does not apply to commercial structures.

¹¹ Noise disturbance is not defined in the Noise Control Ordinance. The County Health Officer has the authority to define and determine the extent of a noise disturbance on a case-by-case basis.

5.2.2.5 California Department of Health Services (~~For Operational Mobile Source Noise~~)

The County exempts all vehicles of transportation (with a few exceptions) that operate in a legal manner ~~within the public right-of-way, railway, or air space, or on private property, from the standards of the Noise Control Ordinance. The County has no adopted ordinance regulating individual motor vehicle noise levels. These are regulated by the state.~~ The State of California, Department of Health Services, Environmental Health Division has published recommended guidelines for ~~mobile source~~ noise and land use compatibility. Each jurisdiction is required to consider these guidelines when developing its general plan noise element and determining the acceptable noise levels within its community. The County of Los Angeles defers to these guidelines when assessing a land use's compatibility ~~with motor vehicle noise sources~~ with the existing or predicted noise environment. These guidelines are illustrated in **Figure 5.2-3, Land Use Compatibility Guidelines for Noise**.

Based on these guidelines, Los Angeles County typically considers an exterior noise level of 60 dB(A) CNEL to be ~~an normally acceptable level~~ for conventionally built single-family, duplex and mobile homes (~~normally acceptable noise levels~~). Exterior noise levels up to 65 dB(A) CNEL are ~~typically~~ considered normally acceptable for multi-family units and transient lodging without any special noise insulation requirements. Between these values and 70 dB(A) CNEL, exterior noise levels for both single-family and multi-family units are ~~typically~~ considered conditionally acceptable only if the buildings ~~are conditioned to include noise insulation features (conditionally acceptable noise levels)~~. An exterior noise level of 70 dB(A) CNEL is typically the dividing line between ~~an conditionally acceptable~~ and normally unacceptable exterior noise environments for all noise sensitive uses, including schools, libraries, ~~churches~~ places of worship, hospitals, day care centers, and nursing homes ~~of conventional construction~~. Construction of noise-sensitive uses exposed to noise levels of 70 dB(A) CNEL or above is generally discouraged. Noise levels below 75 dB(A) CNEL are typically acceptable for office and commercial buildings, while levels up to 75 dB(A) CNEL are typically acceptable for industrial uses.

5.2.2.6 California Noise Insulation Standards

The California Noise Insulation Standards of 1988 (California Code of Regulations Title 24, Section 3501 et seq.) require that interior noise levels from exterior sources be reduced to 45 dB(A) or less in any habitable room of a multi-residential use facility (e.g., hotels, motels, dormitories, long-term care facilities, and apartment houses and other dwellings, except detached single-family dwellings) with doors and windows closed. Measurements are based on L_{dn} ¹² or CNEL. Where exterior noise levels exceed 60 dB(A)

¹² L_{dn} is another day/night weighted noise scale. Like CNEL, L_{dn} is a 24-hour L_{eq} with 10 dB(A) added during the nighttime hours (10:00 PM to 7:00 AM). It is, therefore, less restrictive than CNEL.

L_{dn}/CNEL, an acoustical analysis is required to show that the proposed construction will reduce interior noise levels to 45 dB(A) L_{dn}/CNEL.

5.2.3 EXISTING CONDITIONS

5.2.3.1 Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project - On-Site Noise Levels

The project site is located in an urban environment and is exposed to a variety of noise sources typical of such a setting. Visitor-serving commercial, hotel, boating and residential uses are the predominant uses in Marina del Rey. To characterize the ambient noise environment for noise sensitive land uses in the project area, both noise monitoring and noise prediction modeling were conducted. The existing ambient noise environment for specific roadway segments adjacent to various noise-sensitive locations was modeled using the FHWA Highway Noise Prediction Model off-site roadways was determined by calculating noise levels from vehicular traffic along specific roadway segments adjacent to various noise sensitive locations. Roadway segments evaluated are those that have been determined by the traffic study as being potentially affected by project related traffic.

Noise monitoring was also conducted at selected locations on Parcels 10R and FF and at off-site locations during midday hours (10:00 AM and 1:00 PM) on October 25, 2005. Monitoring on Parcel 9U was conducted at two on-site locations during the PM peak period (4:00 PM and 6:00 PM) on August 15, 2006. Consistent with County standards, noise readings were taken in L_{eq} 60-second periods with “A” frequency fast time weighting. Wind speeds during noise monitoring ranged from 5 to 7 miles per hour during monitoring on Parcels 10R and FF and 5 to 10 miles per hour during monitoring on Parcel 9U in August 2006. **Figure 5.2-4, Noise Monitoring Locations**, illustrates the locations of noise monitoring sites on each component of the project site.

5.2.3.1.1 Neptune Marina Apartments (Parcel 10R) and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

The project site is located in an urban environment and is exposed to a variety of noise typical of such a setting. Visitor-serving commercial, hotel, boating and residential uses are the predominant uses in Marina del Rey. Parcel 10R currently contains 136 apartment units whose residents produce noises generally associated with human activity. Residents of the current apartment buildings both generate and are the recipients of exposed to on-site noise from people talking, doors slamming, lawn care equipment operation, personal watercraft operation, stereos, and domestic animals, and traffic on adjacent roadways noises. These noises do not typically exceed County criteria for residential land uses. The majority of noise measured on-site was generated by traffic on the adjacent roadways.

As shown in **Figure 5.2-4**, monitoring was conducted at two locations on Parcel 10R. The first location (Map Location 1) is ~~located~~ on the western portion of the ~~project site parcel~~, approximately 50 feet east of Via Marina. The average 60-second L_{eq} at this location was recorded at 61.5 dB(A). Noise sources at the time of monitoring included ~~human conversations~~ ~~people talking~~ and occasional traffic.

The second noise monitoring location (Map Location 2) is on the eastern portion of the parcel, approximately 50 feet from the eastern property line. The average 60-second L_{eq} at this location was recorded at 57.6 dB(A). Noise sources at the time of monitoring included ~~human conversations~~ ~~people talking~~, occasional traffic and construction activity on the adjacent property to the east, and boat motors.

5.2.3.1.2 Neptune Marina Apartments (Parcel FF)

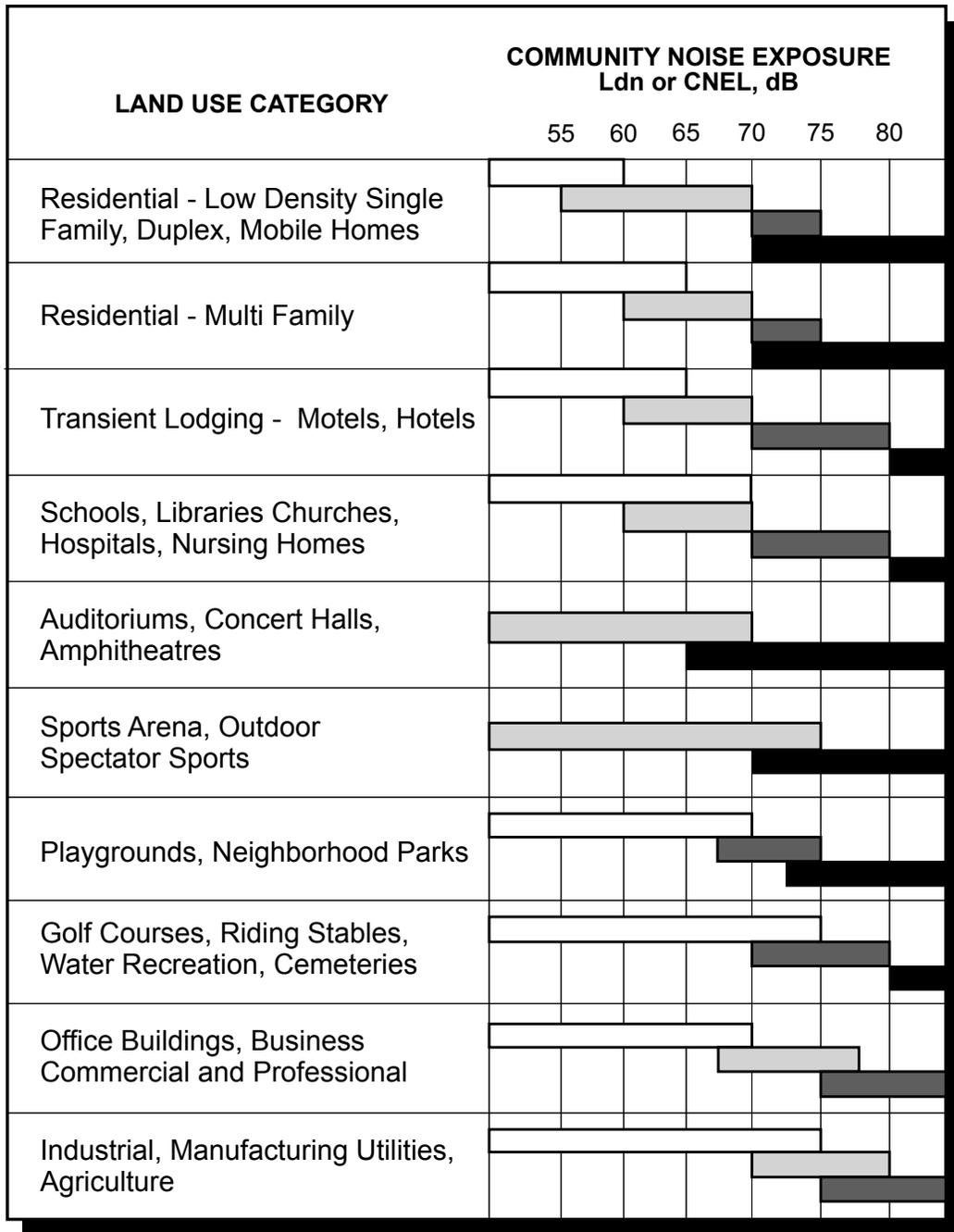
The only existing land use on Parcel FF is a 2-acre surface parking lot. Noise generated from the parking lot includes the starting of car engines, car alarms, doors shutting, people talking and car stereos. However, the majority of noise measured on site was generated by traffic from the adjacent roadways.

As shown in **Figure 5.2-4**, on-site monitoring was conducted at two locations on Parcel FF. The first location (Map Location 5) is ~~located~~ on the northwestern corner of the ~~project site parcel~~, near existing residential uses fronting Via Marina. The average 60-second L_{eq} at this location was recorded at 64.2 dB(A). Noise during the time of monitoring was dominated by traffic on Via Marina.

The second noise monitoring location (Map Location 4) is on the southwestern portion of the parcel, approximately 50 feet east of Via Marina and 50 feet north of Marquesas Way. The average 60-second L_{eq} at this location was recorded at 64.0 dB(A). Noise during the time of monitoring was dominated by traffic on Via Marina.

5.2.3.1.2 Woodfin Suite Hotel and Timeshare Resort (Parcel 9U)

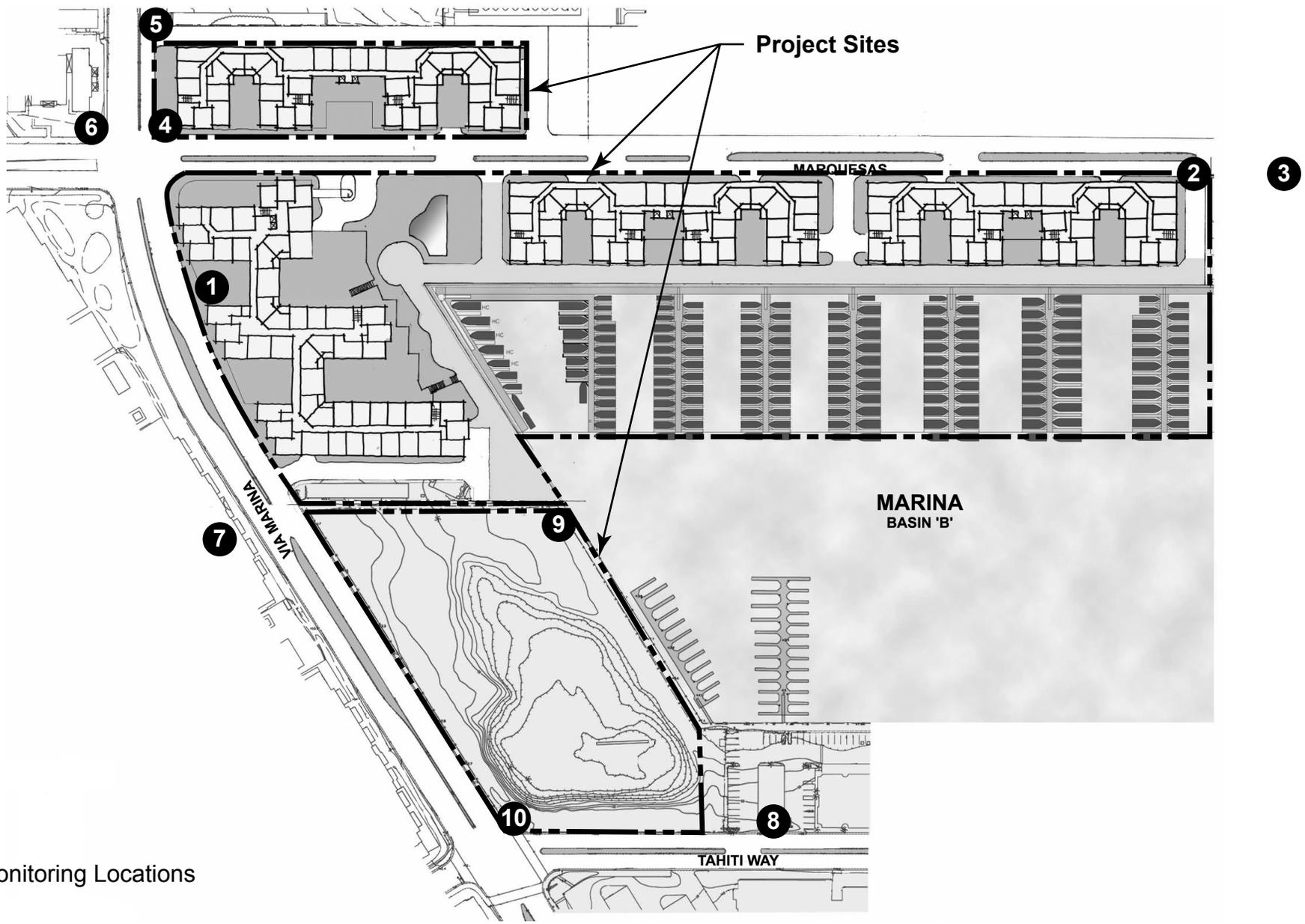
Parcel 9U is currently undeveloped and the primary source of ~~measured~~ ~~noise~~ ~~measured on site~~ was traffic on Via Marina and to a lesser degree on Tahiti Way. Noise was measured at two locations on Parcel 9U, represented by Map Locations 9 and 10 in **Figure 5.2-4**. The first monitoring location (Map Location 9) is located at the northeastern corner of Parcel 9U at the property boundary. ~~The first monitoring location (Map Location 9) is located at the northeastern corner of Parcel 9U.~~ The average 60-second L_{eq} at this location was recorded at 57.8 dB(A).



-  **NORMALLY ACCEPTABLE**
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
-  **CONDITIONALLY ACCEPTABLE**
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
-  **NORMALLY UNACCEPTABLE**
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise reduction features included in the design.
-  **CLEARLY UNACCEPTABLE**
New construction or development should generally not be undertaken.

SOURCE: California Department of Health, Office of Health Control, Guidelines for the Preparation and Content of Noise Elements of the General Plan, February 1976.

FIGURE 5.2-3



Legend:

X Monitoring Locations



APPROXIMATE SCALE IN FEET

SOURCE: Impact Sciences, Inc. – May 2005

FIGURE 5.2-4

Noise Monitoring Locations

The second noise monitoring location (Map Location 10) is located at the northeastern corner of Via Marina and Tahiti Way ~~or~~ (the southwestern corner of Parcel 9U). The meter was placed 50 feet from the centerline of both Via Marina and Tahiti Way. Noise readings were dominated by traffic along these roadways and the average 60-second L_{eq} at this location was recorded at 65.8 dB(A).

5.2.3.2 Off-Site Noise

As shown in **Figure 5.2-4**, additional noise readings were taken at four nearby noise-sensitive locations off site from the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project site and where noise sensitive uses are proximal. Readings were taken on October 25, 2005, between 10:00 AM and 1:00 PM.

Noise monitoring Location 3 is on Marquesas Way, approximately 100 feet east of the eastern boundary of the project site. The average 60-second L_{eq} at this location was recorded at 67.7 dB(A). Noise sources during monitoring included ~~human conversation people talking~~, traffic along Marquesas Way, and ~~new building construction activity on Parcel 12. The construction activity elevated the noise level measured. It is estimated that the average 60-second L_{eq} at this location now that construction is completed would now be closer to 63 to 64 dB(A), which is similar to the noise levels at monitoring locations 6, 7, and 8 discussed below.~~

Noise monitoring Location 6 is approximately 100 feet northwest of the project site, across Via Marina and near residential uses. The average 60-second L_{eq} at this location was recorded at 63.9 dB(A). Noise sources during monitoring included traffic and ~~human conversation people talking~~.

Noise monitoring Location 7 is situated approximately 100 feet west/southwest of the project site, across Via Marina. The average 60-second L_{eq} at this location was recorded at 63.9 dB(A). Noise sources during monitoring included ~~human conversation people talking~~, construction activity, and traffic along Via Marina.

Noise monitoring Location 8 is situated approximately 500 feet south of the project site, across Basin B on Tahiti Way. The average 60-second L_{eq} at this location was recorded at 62.8 dB(A). Noise sources during monitoring included ~~human conversation people talking~~ and traffic along Tahiti Way.

5.2.3.2.1 Modeled Off-Site Roadway Noise

Figure 5.2-5, Noise Sensitive Uses Along Studied Roadway Segments, identifies the location of noise sensitive uses along studied roadway segments. As shown, noise-sensitive receptors near the project site include residential uses on Washington Boulevard, Via Marina, Mindanao Way, Fiji Way and a hospital

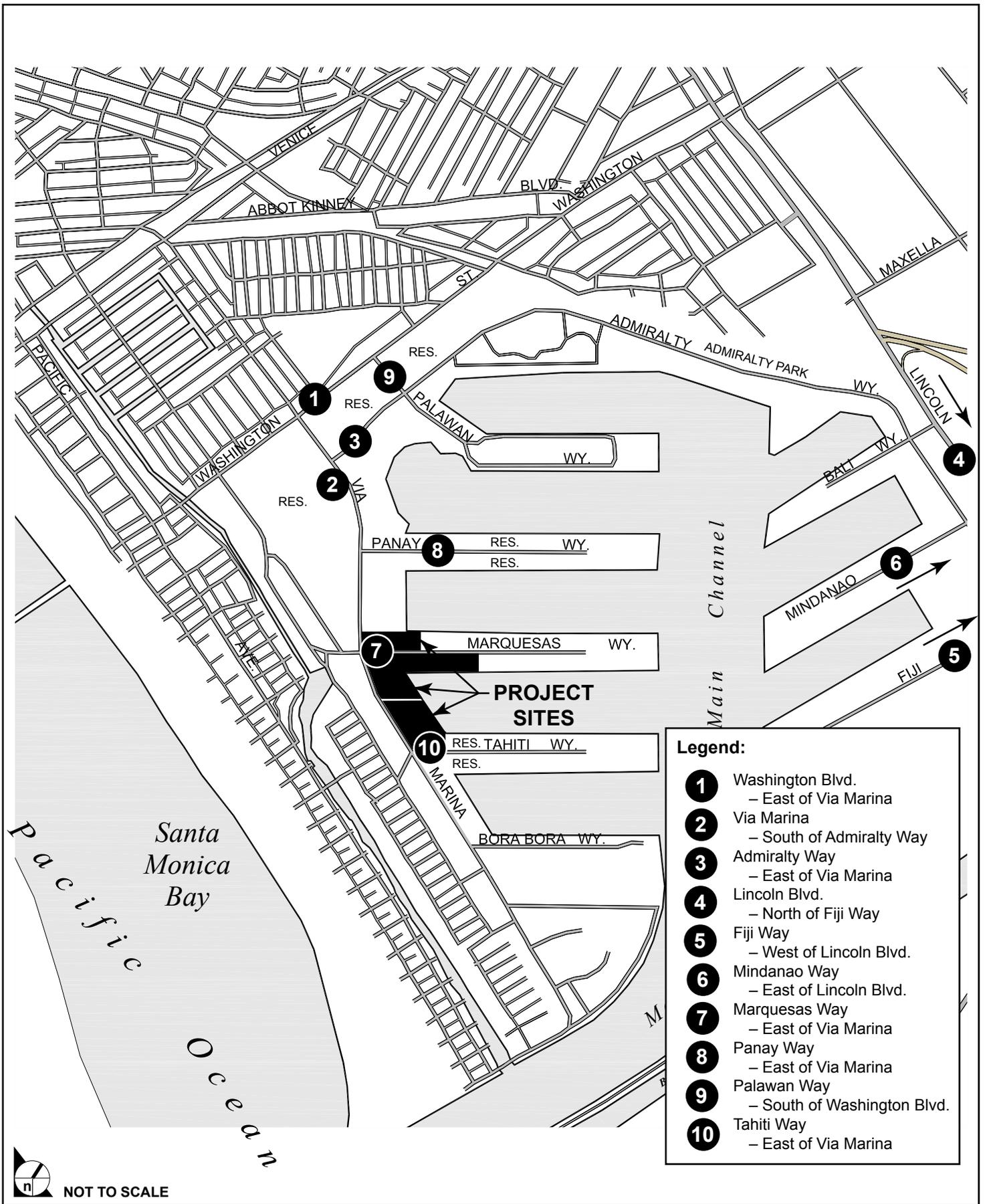
on Lincoln Boulevard. All of the noise sensitive uses are located a minimum of 50 feet from the centerline of the each roadway. Existing Modeled existing roadway noise levels are presented in **Table 5.2-4, Modeled Existing Off-Site Roadway Noise Levels at Noise-Sensitive Locations**. The noise levels have been calculated using the FHWA Highway Noise Prediction Model and based on the existing (2007) traffic volumes on the studied adjacent roadways within the project area using the FHWA Highway Noise Prediction Model. As shown, modeled existing roadway noise levels range from 53.8 dB(A) along Marquesas Way east of Via Marina to 71.7 dB(A) on Lincoln Boulevard north of Fiji Way.

Table 5.2-4
Modeled Existing Off-Site Roadway Noise Levels at Noise Sensitive Locations
Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

ROADWAY • Segment	Existing and Planned Noise Sensitive Land Uses	dB(A) CNEL
WASHINGTON BOULEVARD • east of Via Marina	Residential (50 feet)	67.9*
VIA MARINA • south of Admiralty Way	Residential (50 feet)	67.4*
ADMIRALTY WAY • east of Via Marina	Admiralty Park (50 feet)	69.2
LINCOLN BOULEVARD • north of Fiji Way	Daniel Freeman Hospital (50 feet)	72.5*
FIJI WAY • west of Lincoln Boulevard	Residential (50 feet)	66.3*
MINDANAO WAY • east of Lincoln Boulevard	Residential (50 feet)	66.2*
MARQUESAS WAY • east of Via Marina	Residential	56.0
PANAY WAY • east of Via Marina	Residential/Recreation	59.4
PALAWAN WAY • south of Washington Boulevard	Recreation	61.6
TAHITI WAY • east of Via Marina	Residential (50 feet)	56.5

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.

* Roadway segments which exceed normally acceptable levels under the County Land Use Compatibility Guidelines for Noise.



NOT TO SCALE

SOURCE: Impact Sciences, Inc. – June 2005

FIGURE 5.2-5

Noise Sensitive Uses Along Studied Roadway Segments

5.2.3.2.2 ~~Off-Site Roadway Calculation~~ Noise Prediction Methodology

~~To determine future off-site roadway noise levels from existing conditions, a variety of scenarios are presented in the impact discussion to clearly show~~ Using the FHWA Highway Noise Prediction Model, the following scenarios are evaluated in the impact analysis to determine the effect the project would have on surrounding sensitive receptors. The following is a brief summary of the scenarios that are presented for the proposed project, the individual parcels that make up the project, and cumulative conditions:

- ~~Existing Plus Project:~~ This scenario takes the CNEL levels described in Table 5.2-4 and adds the project contribution to the overall CNEL level. Depending on the size of the project and the particular roadway segment being analyzed, this scenario could have a range of higher noise levels to no increase in CNEL. The Existing Plus project scenario presents evaluates the noise impact of project traffic on the existing mobile source noise environment and the immediate effect implementation of the project would have on surrounding sensitive receptors.
- ~~Future Without Project:~~ This scenario evaluates the mobile source noise environment in the project area in 2013, the year presents the expected future noise environment at a horizon year when the project would be completed. Ambient traffic growth is factored into this scenario and resulting. For this project, 2011-2013 is the horizon year for implementation. These noise levels represent the future baseline for against which to compare the noise impact of the proposed project.
- ~~Future With Project:~~ This scenario evaluates the noise impact of project traffic on the future 2013 baseline scenario discussed above. This scenario takes the CNEL levels presented in the Future Without project scenario, in horizon year 2011-2013, and adds the project contribution. Similar to the Existing Plus project scenario, depending on the size of the project and the particular roadway segment being analyzed, the increase in expected noise levels could vary. The overall incremental noise increase in the Future With project as compared to the Existing Plus project scenario could differ. This is due to the ambient growth factor that is assumed in the Future Without project scenario. The additional growth through 2011-2013 in this calculation could increase the expected CNEL, depending upon location, assumed for the future. Therefore, it can be anticipated that the Future With project increment would be the same or slightly less more than the Existing Plus project increment due to additional growth surrounding the project site.
- ~~Future With Project and Related Projects:~~ This scenario looks at the cumulative noise conditions impacts from of the 2013 ambient traffic growth, plus traffic from surrounding projects that are either pending approval or have been approved for construction, plus traffic from the proposed project. The CNEL levels are calculated by factoring the expected noise levels from the proposed project and the expected noise levels from surrounding projects that are either pending approval or have been approved for construction. This noise level presents the expected future noise level in combination with a more precise list of expected development. scenario is the most representative of future noise conditions on the project site and in its vicinity.

5.2.4 ENVIRONMENTAL IMPACTS

5.2.4.1 Project Improvements

Implementation of the proposed project would result in the development of 526 residential dwelling units, a 19-story building with 288 hotel and timeshare suites and an assortment of accessory patron- and visitor- serving uses, 174 private and between 7 and 11 public-serving boat spaces, and a 1.46-acre public park that would include a 0.47-acre restored wetland and a 0.99-acre upland buffer. There are 136 existing apartments and 198 boat spaces presently on site. Therefore, completion of the proposed project would result in a net increase of 390 apartment units, 288 hotel and timeshare suites with accessory patron- and visitor- serving uses, a net decrease of up to 17 boat spaces, a 1.46-acre public park that includes a 0.47-acre restored wetland and a 0.99-acre upland buffer.

5.2.4.2 Thresholds of Significance

Based on Appendix G of the most recent update of the *State CEQA Guidelines*, impacts related to noise and vibration are considered significant if the project

- would result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance;
- would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or
- would result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

5.2.4.3 Impact Analysis

The applicable thresholds of significance are listed below followed by ~~analysis of the significance of any potential impacts~~ the noise impact analysis for the proposed project. Mitigation measures are also identified that would reduce or avoid potentially significant adverse impacts, ~~if applicable~~.

5.2.4.3.1 Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

5.2.4.3.1.1 Threshold: Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance?

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

Threshold: 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?

Threshold: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Analysis: The significance of noise impacts is based on both the Land Use Compatibility Guidelines for Noise identified in **Figure 5.2-3**, and typical community responses to changes in noise levels. Changes in the community noise level (CNEL) of less than 3 dB(A) ~~are would~~ not typically be noticed by the human ear. Changes from 3 to 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. Based on this information, ~~a significant noise impacts~~ would occur when an increase of 3 dB(A) CNEL or greater ~~in noise level would occur from~~ as a result of project-related activities.

Additionally, if proposed on-site uses are subject to point source noise levels originating on or off the project site that are above County Noise Control Ordinance standards (identified in **Tables 5.2-2 and 5.2-3**), a significant on-site noise impact would occur. Note that the County Noise Control Ordinance does not govern individual motor vehicles. These are governed by the state.

Construction Impacts: ~~The Each component of the project is proposed to be constructed in a single phase. Demolition and excavation activities on Parcels 10R and FF are expected to occur over a 5.5-month period beginning to occur over a two- to three-month period and are anticipated to begin in January May 2009 2011. Demolition Full of existing uses and construction of the new development on Parcel 10R project is anticipated to take 303 months to complete and would be completed by November 2013. Demolition and excavation on Parcel FF are expected to begin in October 2011; completion of new development on~~

~~that parcel is anticipated to be within 24 months, or by October 2013. Given this schedule, anticipated buildout of the project would occur in Sept 2011. Construction of the Woodfin Suite Hotel and Timeshare Resort (Parcel 9U) would take approximately 30 months, beginning in May 2011 with anticipated buildout of the parcel to occur at the end of 2013. Finally, construction of the wetland park and public-serving boat spaces is expected to primarily occur during 2012. Given this schedule, anticipated build out of the entire project would occur in November 2013.~~

~~In addition to construction on Parcels 10R, FE, and 9U, a new sewer line to serve the Parcel 10R development will be constructed in Marquesas Way and Via Marina, and approximately 1240 feet of water main would be installed within Via Marina to serve the project.~~

Construction of the proposed project would result in increases in ambient noise levels in the project area on an intermittent basis. This temporary increase in noise will likely be noticeable to nearby residents and on- and off-site employees, as well as visitors to Marina del Rey. It must be emphasized that noise levels would fluctuate depending on the construction activity, equipment type and duration of use, the distance between the noise source and receptor, and the presence or absence of noise attenuation barriers. ~~Construction activities will include the installation of a new sewer line main in Marquesas Way and Via Marina to serve the Parcel 10R development.~~

Construction of the project would involve the temporary use of heavy equipment, such as pile drivers, tractors (dozers), loaders, concrete mixers and cranes. Smaller equipment, such as jackhammers, pneumatic tools, saws and hammers, would also likely be used throughout the site during demolition and construction ~~stages~~.

The US Environmental Protection Agency (EPA) has compiled data regarding the noise-generating characteristics of specific types of construction equipment. Based on this data, **Table 5.2-5, Noise Levels of Typical Construction Equipment**, presents noise levels of typical construction equipment, which could be used on site during various phases of construction. As shown, noise levels generated by heavy equipment can range from approximately ~~68-76~~ dB(A) to noise levels in excess of 100 dB(A) when measured at 50 feet. However, much of this noise would diminish rapidly with distance from the construction site at a rate of approximately 6 dB(A) per doubling of distance.

**Table 5.2-5
Noise Levels of Typical Construction Equipment**

Equipment Type	Typical Equipment at 50 Feet (dB[A])	Quiet Equipment at 50 Feet (dB[A])¹
Air Compressor	81	71
Backhoe	85	80
Concrete Pump	82	80
Concrete Vibrator	76	70
Truck Crane	88	80
Dozer	87	83
Generator	78	71
Loader	84	80
Paver	88	80
Pneumatic Tools	85	75
Pile Driver	100	NA
Water Pump	76	71
Power Hand Saw	78	70
Shovel	82	80
Trucks	88	83

¹ Quieted equipment can be designed with enclosures, mufflers, or other noise-reducing features.

Based on a review of the site plan, construction activity would occur as close as 50 feet from existing ~~noise sensitive~~ residential uses (~~now under construction~~) located east of the project site. ~~These uses at these locations~~ could experience noise levels that reach ~~94-100 dB(A) for short time periods during pile driving,~~ and noise levels up to 88 dB(A) during other construction activities. Construction activity on the project site ~~would~~ could also occur as close as 125 feet from existing residential uses located west of the project site along Via Marina, resulting in noise levels of up to ~~85-82 dB(A)~~ at these sensitive receptors. These, as well as any other ~~locations-residences with that experience an an uninterrupted line of sight to the construction noise sources~~ ~~uninterrupted line of sight to the construction~~, could be temporarily exposed to exterior noise levels ~~which that~~ could exceed the County's Noise Control Ordinance standards for construction equipment as identified in **Table 5.2-3**. Therefore, construction noise is considered a temporary significant impact.

~~Construction noise would represent a short-term significant impact based on the potential to exceed County noise standards and the approximately near 30 month two and a half-year construction period.~~ Mitigation measures for ~~to reduce construction noise impacts are provided below.~~

Haul Route Noise Impacts: Project construction will require the use of heavy trucks to haul equipment and materials to the site, as well as transport debris and earth excavated during demolition of existing structures and grading of the site. ~~During the initial two months of demolition and excavation, as many~~

as 284 truck trips would arrive to and leave the site daily. During the remainder of the project construction, the number of truck trips would range from 70 to 194 trips per day (Crain & Associates, January 29, 2008).

Off-site sensitive receptors along the truck route that would have a direct line of sight to the trucks would experience temporary, instantaneous noise levels up to 88 dB(A) at 50 feet from the roadway. Receptors located further away would experience less noise due to their greater distance from the roadway and to any intervening topography and/or structures that may exist between them and the noise source. This noise impact would be temporary and instantaneous in nature as the trucks pass by the receptors. Truck traffic noise at the receptors would diminish rapidly as the trucks travel away from them.

To limit noise impacts associated with construction traffic on nearby land uses, truck haul routes have been established which route vehicles away from sensitive uses to the maximum extent feasible. As depicted in **Figure 5.2-6, Haul Route**, the haul route extends north on Via Marina to Washington Boulevard, then east on Lincoln Boulevard and south on the Marina Freeway.

To minimize potential neighborhood disruption and conflicts along the haul route, a construction traffic control plan will be developed for use during construction. The plan will identify all traffic control measures, signs and time limits to be implemented by the construction contractor ~~during the duration of demolition and construction activity~~ for the duration of construction. All vehicles will be staged either within the property or at designated areas as established by a County approved haul route plan. Measures likely to be used to reduce noise impacts include ~~limitations on the hours and days in which construction activity may occur. All vehicles will be staged either within the property lines or at designated areas as established by a County approved haul route plan.~~

In short, heavy duty truck traffic associated with this project would be intermittent throughout the workday, restricted to daytime hours, would primarily travel along highways and major arterials where few noise sensitive uses are located, would not traverse residential areas or travel past sensitive receptors for extended periods of time, and would generate noise levels comparable to existing vehicle noise along other major arterials in the area. Neither the County Noise Element nor the County Noise Control Ordinance have standards that apply to individual motor vehicles (these are regulated by the California Vehicle Code).

~~Trucks on average are expected to enter and leave the site on a daily basis over the construction period, but only during working hours. The trips associated with trucks traveling off-site are based on the URBEMIS 20022007 assumptions associated with proposed land uses proposed for the project. According to URBEMIS 20022007 calculations prepared for the project, trucks entering and exiting the site would~~

~~make approximately 42 round-trip 440 PCE 7.530 miles each trip during demolition and excavation. During site-grading, trucks entering and exiting the site would similarly travel approximately 20 up to 30 miles round-trip, and would make approximately 131 round-trip 440 PCE trips per day. The Los Angeles County Department of Public Works (LACDPW), Construction Division, limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. This reduces the impact on local residents by restricting most construction-based noise generation to hours when most residents are at work and not generally home. The number of truck trips traveling along the designated haul route will vary daily, depending on the nature of the construction activity. Employment of standard noise attenuation practices would be implemented as required by the LACDPW. However, as previously discussed, noise sensitive land uses located along the haul route are primarily residential in nature. Based on the information contained in **Table 5.2-5, sensitive receptors** uses within 50 feet of the haul route could experience temporary noise events ranging from 83 to 88 dB(A) from trucks, which exceeds County standards outlined above. Therefore, a temporary significant impact would result from trucks traveling to and from the project site along the haul route during the projected buildout of the project. Employment of standard noise attenuation practices would be implemented as required by the LACDPW (see Mitigation Measure 5.2-1).~~

~~Construction workers, who would generally arrive to the construction site at the beginning of the workday and leave at the end of the workday, would contribute to increases in peak and pre-peak hour traffic along roadways in the project study area. Construction worker traffic, which would be largely comprised of passenger vehicles and light pick-up trucks, would not represent a substantial percentage of peak hour volumes in the area and would not cause an audible increase in community noise levels. Therefore, noise from construction-worker traffic would be less than significant.~~

Vibration Impacts: The primary vibration source associated with development of the proposed project involves the potential use of pile drivers during foundation construction; ~~lesser severe~~ vibration impacts could result from the use of other heavy equipment on ~~the project site. There is also the potential for off-site vibration impacts from and off-site due to~~ haul trucks passing on streets adjacent to sensitive receptors. ~~Various types of construction equipment have been measured under a wide variety of construction activities; average source levels reported in terms of velocity levels are provided in **Table 5.2-6, Vibration Source Levels for Construction Equipment.** Although **Table 5.2-6** gives one level of vibration for each piece of equipment, it should be noted that there is a considerable variation in reported ground vibration levels from construction activities. Nonetheless, the values in the table represent a reasonable average of vibration levels for an array of equipment operating on a range of soil types and conditions.~~

Table 5.2-6
Vibration Source Levels for Construction Equipment

<u>Equipment</u>	<u>PPV at 25 ft (in/sec)</u>	<u>Approximate VdB at 25 ft.</u>
Pile Driver (impact)	upper range typical	1.518 0.644
Pile Driver (sonic)	upper range typical	0.734 0.170
Clam shovel drop (slurry wall)		0.202
Hydro mill (slurry wall)	in soil in rock	0.008 0.017
Large bulldozer		0.089
Caisson drilling		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small bulldozer		0.003

Source: Harris Miller Miller & Hanson, Inc., Noise and Vibration During Construction (www.hmmh.com/cmsdocuments/mit/cta/ETA_CH_12.pdf), p. 12-129. These data are based on U.S. Department of Transportation, Federal Transit Administration, data (1995).

~~Pile drivers are the pieces of construction equipment most likely to cause potential off site vibration impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone. Because the use of pile driving equipment is required for foundation construction, vibration impacts that would occur are considered significant and unavoidable, but temporary in type.~~

Pile driving could result in a maximum vibration level of 1.518 inches/second PPV at 25 feet. This level of vibration is above the perception threshold identified in Section 12.08.560 of the County Code (greater than 0.01 in/sec over the range of 1 to 100 Hertz), and is within the range for architectural damage risk, which is between 0.2 and 2.0 inches/second. Therefore, temporary groundborne vibration during pile driving would exceed the threshold of perception and would have the potential to cause damage to nearby structures. Pile driving vibration impacts would be significant. A certified structural engineer shall be retained to submit evidence that pile driving activities would not result in any structural damage to nearby structures (see Mitigation Measure 5.2-5).

A loaded heavy-duty haul truck can generate a level of vibration 0.076 inches/second PPV at 25 feet. The perception of truck traffic vibration would depend upon several factors, including road condition, vehicle speed, vehicle weight, vehicle suspension system, soil type and stratification, and distance between the truck and the receptor. Perceptible truck vibration would be intermittent and instantaneous as it would have a rapid onset and a rapid decay as the truck moves toward and away from the receptor. Section 12.08.560 of the County Code applies to any device, including motor vehicles, and, therefore, truck traffic vibrations exceed the threshold of significance and a significant impact can be concluded.

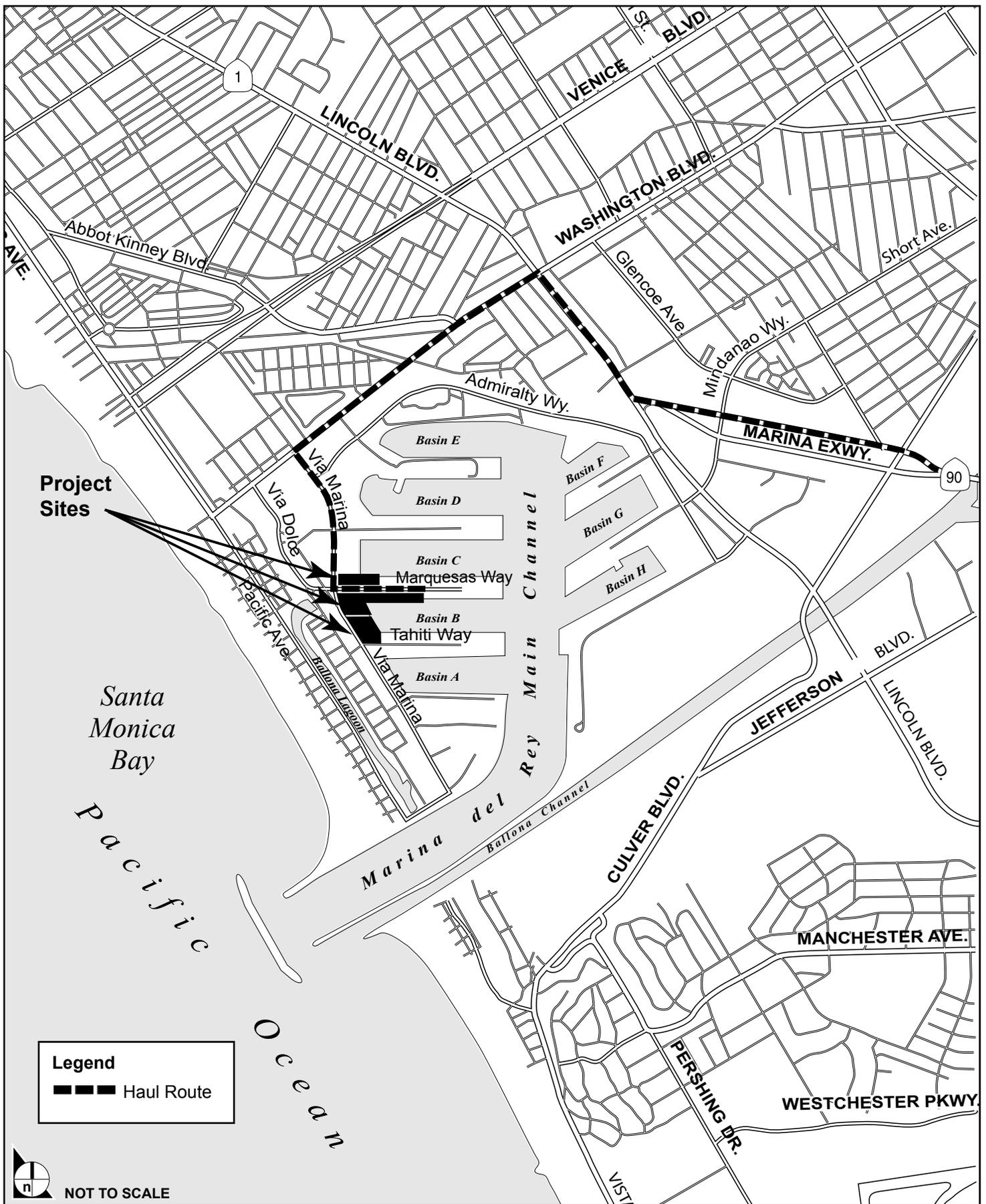
Operation Impacts; Point and Stationary Source Noise: ~~On-site residential uses are considered sensitive and could be affected by on- and off-site point source noise. Operation of the proposed project is expected to result in increased noise due to the net increase in resident population on the site and associated vehicular traffic, affecting both future on-site receptors and existing off-site receptors.~~

~~Point and stationary source noise experienced at noise at on- and off-site locations would consist of intermittent sounds associated with human activity, such as people talking, doors slamming, lawn care equipment operation, stereos, domestic animals, etc. Noise levels generated by these. These sources typically generate noise levels of between 52 to and 62 dB(A) CNEL. Such noises are typical of a residential areas and are comparable to the types and levels of noise presently experienced at the site and in the project area. All Off-site noise-sensitive receptors are located a minimum of 50 feet from the project site and it is expected that most of the point source noise generated on the site would during project operation on site will have attenuated attenuation and would, therefore, not have an a significant impact on these off-site receptors. As shown in Table 5.2-6, Predicted Future Off Site Roadway Noise Levels at Noise Sensitive Locations, Neptune Marina, the existing dB(A) CNEL measured at all monitoring locations exceed County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources for the applicable designated noise zone land use. The County Noise Control Ordinance states that exterior noise levels caused by stationary or point noise sources shall not exceed the levels identified in Table 5.2-2, or the ambient noise level,¹³ whichever is greater. Therefore, the levels monitored have become the standard. As stated in 5.2.1.1, Characteristics of Noise, changes in a community noise level of less than 3 dB(A) are not typically noticed by the human ear.¹⁴ As shown in Table 5.2-6, all expected noise increases resulting from the proposed project would be less than 3 dB(A). As a result, noise generated by point or stationary sources on the project site would be consistent with County of Los Angeles noise standards. Thus, noise impacts generated by the new residents located on the project site would not constitute a significant impact to on- or off-site receptors.~~

¹³ ~~Ambient noise level is defined as the existing background noise level at the time of measurement or prediction.~~

¹⁴ ~~Highway Noise Fundamentals, (Springfield, Virginia: US Department of Transportation, Federal Highway Administration, September 1980), p. 81.~~

Operation Impacts; Mobile Source Noise: Development of the project would increase the traffic volumes along local roadways. To evaluate potential noise impacts associated with increased vehicle trips, noise prediction modeling was conducted for ~~study-selected roadway segments adjacent to noise-sensitive land uses that could be affected by project traffic~~ roadway segments that are bordered by noise sensitive land uses. Roadway segments include Washington Boulevard east of Via Marina, Via Marina south of Admiralty Way, Admiralty Way east of Via Marina, Lincoln Boulevard north of Fiji Way, Fiji Way west of Lincoln Boulevard, Mindanao Way east of Lincoln Boulevard, Panay Way east of Via Marina, Tahiti Way east of Via Marina, Marquesas Way east of Via Marina and Palawan Way east of Via Marina. Roadway geometrics and traffic volumes ~~segments~~ were obtained from Crain and Associates, the preparers of the traffic study for the proposed project. Scenarios modeled for these roadways are (1) existing (2007) traffic volumes; (2) existing plus project traffic volumes; and (3) future (year ~~2011~~2013) traffic volumes plus project and without project. The results of the noise modeling are shown in ~~the~~ **Table 5.2-67, Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations.**



SOURCE: Impact Sciences, Inc. – May 2005

FIGURE 5.2-6

Haul Route

Table 5.2-6Z
Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations
Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

Roadway Segment	Sensitive Land Uses Distance from Roadway Centerline	Existing dB(A) CNEL	Existing Plus Project dB(A) CNEL	Increase in dB(A) CNEL	Significant Impact?	Future Without Project dB(A) CNEL	Future With Project dB(A) CNEL	Increase in dB(A) CNEL	Significant Impact?
Washington Blvd. (east of Via Marina)	Residential, 50 feet	67.9*	68.0*	0.1	NO	68.0*	68.1*	0.1	NO
Via Marina (south of Admiralty)	Residential, 50 feet	67.4*	68.0*	0.6	NO	67.6*	68.1*	1.5	NO
Admiralty Way (east of Via Marina)	Admiralty Park, 50 feet	69.2	69.4	0.2	NO	69.3	69.6	0.3	NO
Lincoln Boulevard (north of Fiji Way)	Daniel Freeman Hospital, 50 feet	72.5*	72.5*	0.0	NO	72.7*	72.7*	0.0	NO
Fiji Way (west of Lincoln)	Residential, 50 feet	66.3*	66.4*	0.1	NO	66.5*	66.5*	0.0	NO
Mindanao Way (east of Lincoln)	Residential, 50 feet	66.2*	66.5*	0.3	NO	66.4*	66.6*	0.2	NO
Marquesas Way (east of via marina)	Residential, 50 feet	56.0	57.3	1.3	NO	56.1	57.4	1.3	NO
Panay Way (east of Via Marina)	Residential, 50 feet	59.4	59.4	0.0	NO	59.5	59.5	0.0	NO
Palawan Way (south of Washington)	Recreation	61.6	61.6	0.0	NO	61.7	61.7	0.0	NO
Tahiti Way (east of Via Marina)	Residential, 50 feet	56.5	56.5	0.0	NO	56.7	56.7	0.0	NO

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.
 * Roadway segments which exceed normally acceptable levels under the Land Use Compatibility Guidelines for Noise.

~~Noise As shown, noise level increases attributable to project traffic under the second and third scenarios generated by cumulative development would be less than the 3 dB(A) CNEL threshold at all locations. As previously stated, increases of less than 3 dB(A) CNEL would not exceed the off-site mobile source thresholds of significance for this analysis and would not generally be perceptible to the human ear, while increases between 3 dB(A) and 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. Therefore, no significant off-site noise impacts would occur as a result of project operation when compared with existing conditions.~~

Conclusion:

Construction Impacts: Significant;

Haul Route Noise Impacts: Significant (temporary);

Vibration Impacts: Significant, especially during pile driving;

Operational Impacts; Point and Stationary Sources ~~Source Noise:~~ Less than significant;

Operational Impacts; Mobile Source Noise: Less than significant.

Mitigation Measures:

Existing Regulations and Standards Applicable to the project: ~~The LACDPW, Construction Division, Section 12.12.030 of the County Code~~ limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. The Los Angeles County Department of Health Services has the authority to restrict construction activities to between the hours of 7:00 AM and 7:00 PM and no time on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line. In addition, a haul route will be reviewed and approved by the County ~~in order to that would~~ limit neighborhood disturbance to the degree feasible. ~~A To further limit off-site construction noise impacts, a construction staging area for the storage of equipment and material will be identified located on the project site as far as feasible possible from existing residential uses/residences for the storage of equipment and material but will remain on the project site.~~ With regard to operations, all ~~stationary and point~~ sources of noise occurring on the project site must adhere to the requirements of ~~the County of Los Angeles Ordinance No. 11773, Section 12.08.390 of the County Code. Even with these measures in place, it would not be possible to reduce construction noise impacts within the standards set forth in the County Code, particularly during pile driving.~~

Mitigation Measures Recommended by the EIR:

- 5.2-1. All construction equipment, fixed or mobile, that is utilized on the site for more than two working days shall be in proper operating condition and fitted with standard factory ~~silencing features/mufflers, as feasible. Stationary source noises (such as generators and air compressors) within 100 feet of residential land uses shall be completely enclosed in temporary portable noise structures, such as a plywood fence or acoustic noise curtain. If determined necessary and feasible by the County of Los Angeles Building and Safety Division, temporary sound walls shall be constructed between the construction activity and nearby occupied residences. The sound walls shall be continuous with no breaks, and shall be of such height to break the line-of-sight to the first floor occupants of the nearby residences.~~ ~~To ensure that mobile and stationary equipment is properly maintained and meets all federal, state and local standards, the applicant shall maintain an equipment log. The log shall document the condition of equipment relative to factory specifications and identify the measures taken to ensure that all construction equipment is in proper tune and fitted with an adequate muffling device. The log shall be submitted to the Los Angeles Department of Public Works for review and approval on a quarterly basis.~~ ~~In areas where construction equipment (such as generators and air compressors) is left stationary and operating for more than one day within 100 feet of residential land uses, temporary portable noise structures, such as a plywood fence or noise curtain, shall be built. These barriers shall be located between the piece of equipment and sensitive land uses. As the project is constructed, the use of building structures as noise barrier would be sufficient. The County building official or a designee should spot check to ensure compliance.~~
- 5.2-2. All exterior construction activity, including grading, transport of material or equipment and warming-up of equipment, shall be limited to between the hours of 8:00 AM to 5:00 PM, except for concrete pours, and shall not occur during weekend periods unless approved by the Los Angeles County Department of Public Works. Construction activity associated with pile driving shall be limited to the hours of 8:00 AM and 4:30 PM. The work schedule shall be posted at the construction site and modified as necessary to reflect deviations approved by the Los Angeles County Building and Safety Division. The County building official or a designee should spot check and respond to complaints.
- 5.2-3. The project applicant shall post a notice at the construction site ~~and along the proposed truck haul route. The notice that~~ shall contain information on the type of project, ~~and~~ anticipated duration of construction activity, locations of haul routes, and shall provide a

phone number where people can register questions and complaints. The applicant shall keep a record of all complaints and take appropriate action to minimize noise generated by the offending activity where feasible. A monthly log of noise complaints shall be maintained by the applicant and submitted to the County of Los Angeles Department of Public Health.

5.2.4. To the extent feasible, the project developer shall utilize cast-in-drilled-hole or auger cast piles in lieu of pile driving.

Pile drilling is an alternate method of pile installation where a hole is drilled into the ground up to the required elevations and concrete is then cast into it. The estimated noise level of pile drilling at 50 feet is 80 to 95 dB(A) L_{eq} compared to 90 to 105 dB(A) L_{eq} of conventional pile driving.¹⁵ Therefore, pile drilling generally produces less vibration and noise levels that are approximately 10 to 15 decibels lower than pile driving.

5.2.5. A certified structural engineer shall be retained to submit evidence that pile driving activities would not result in any structural damage to nearby structures.

Conclusion:

Construction Impacts After Mitigation: Significant and unavoidable

Haul Route Noise Impacts After Mitigation: Significant and unavoidable

Vibration Impacts After Mitigation: Significant and unavoidable

Operational Impacts; Point and Stationary Sources (No Mitigation Required): Less than significant

Operational Impacts; Mobile Source Noise (No Mitigation Required): Less than significant

¹⁵ U.S. Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, December 1971.

5.2.4.3.2 Neptune Marina Parcel 10R Project

The applicable thresholds of significance are listed below followed by ~~analysis of the significance of any potential impacts~~ the noise impact analysis for Parcel 10R. Mitigation measures are also identified which would reduce or avoid potentially significant adverse impacts, ~~if applicable~~.

5.2.4.3.2.1 Threshold: Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance?

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

Threshold: 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?

Threshold: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Analysis: The significance of noise impacts is based on both the Land Use Compatibility Guidelines for Noise identified in **Figure 5.2-3**, and typical community responses to changes in noise levels. Additionally, if proposed ~~on-site~~ uses on Parcel 10R are subject to point source noise levels originating on or off the project site that are above County Noise Control Ordinance standards (identified in **Tables 5.2-2 and 5.2-3**), a significant ~~on-site~~ noise impact would occur. Note that the County Noise Control Ordinance does not govern individual motor vehicles. These are governed by the California Vehicle Code.

Construction Impacts: Construction of the Neptune Marina Parcel 10R would not be phased. Demolition ~~and excavation~~ activities on ~~the existing project site~~ this parcel are expected to occur over a ~~two- to three-~~ 5.5-month period and are anticipated to begin in ~~January~~ May 2009 ~~2011~~. Demolition of existing uses and construction of the Neptune Marina Parcel 10R is anticipated to take ~~33-30~~ months to complete. Given this schedule, anticipated buildout of the project would occur in ~~Sept~~ November 2011 ~~2013~~. Construction of the proposed project would result in increases in ambient noise levels in the project area on an intermittent basis. This temporary increase in noise will likely be noticeable to nearby residents and on- and off-site employees, as well as visitors to Marina del Rey. It must be emphasized that noise levels would fluctuate depending on the construction activity, equipment type and duration of use, the distance between the noise source and receptor and the presence or absence of noise attenuation barriers.

Construction of the project on Parcel 10R would involve the temporary use of heavy equipment, such as pile drivers, tractors (dozers), loaders, concrete mixers and cranes. Smaller equipment, such as jackhammers, pneumatic tools, saws and hammers, would also likely be used throughout the site during demolition and construction stages. Construction activities will also include the installation of a new sewer line main in Marquesas Way and Via Marina, and approximately 500 feet of water main would be installed within Via Marina to serve the Parcel 10R.

The EPA has compiled data regarding the noise-generating characteristics of specific types of construction equipment. **Table 5.2-5, Noise Levels of Typical Construction Equipment**, shown above, presents noise levels of typical construction equipment, which could be used on site during various phases of construction. As shown, noise levels generated by heavy equipment can range from approximately ~~68-76~~ dB(A) to noise levels in excess of 100 dB(A) when measured at 50 feet. However, much of this noise would diminish rapidly with distance from the construction site at a rate of approximately 6 dB(A) per doubling of distance.

Based on a review of the site plan, construction activity would occur as close as 50 feet from existing noise sensitive residential uses (~~now in construction~~) located east of the project site Parcel 10R. Uses at these locations could experience noise levels that reach ~~94 up to 100~~ dB(A) for short time periods during pile driving and up to 88 dB(A) during other construction activities. Construction activity on the project site Parcel 10R would ~~could~~ also occur as close as 125 feet from existing residential uses located to the west of the project site along Via Marina, resulting in noise levels of up to ~~85-82~~ dB(A). These, as well as any other locations ~~that experience an with an uninterrupted line of sight to the construction noise sources~~ uninterrupted line of sight to the construction, could be temporarily exposed to exterior noise levels which ~~that~~ could exceed the County's Noise Control Ordinance standards for construction equipment noise levels identified in **Table 5.2-3**. Therefore, construction noise ~~is considered a temporary significant impact~~.

~~Construction noise would represent result in a short-term significant impact based on the potential to exceed County noise standards and the near two and a half year during the thirty-month construction period for Parcel 10R.~~

Haul Route Noise Impacts: ~~Project e~~Construction on Parcel 10R will require the use of heavy trucks to haul equipment and materials to the site, as well as transport debris and earth excavated during demolition of existing structures and grading of the site. During the initial 5.5 months of demolition and excavation, as many as 140 truck trips would arrive to and leave the parcel daily. During the remainder of Parcel 10R construction, the maximum number of daily truck trips would be 70 (Crain & Associates, January 29, 2008).

~~Off-site sensitive receptors along the truck route that would have a direct line of sight to the trucks would experience temporary, instantaneous noise levels up to 88 dB(A) at 50 feet from the roadway. Receptors located further away would experience less noise due to their greater distance from the roadway and to any intervening topography and/or structures that may exist between them and the noise source. This noise impact would be temporary and instantaneous in nature as the trucks pass by the receptors. Truck traffic noise at the receptors would diminish rapidly as the trucks travel away from them.~~

To limit noise impacts associated with construction traffic on nearby land uses, truck haul routes have been established which route vehicles away from sensitive uses to the maximum extent feasible. As depicted in **Figure 5.2-6**, the haul route extends north on Via Marina to Washington Boulevard, then east on Lincoln Boulevard and south on the Marina Freeway.

~~To minimize potential neighborhood disruption and conflicts along the haul route, a construction traffic control plan will be developed for use during construction. The plan will identify all traffic control measures, signs and time limits to be implemented by the construction contractor during the duration of demolition and construction activity for the duration of construction. All vehicles will be staged either within the property or at designated areas as established by a County approved haul route plan.~~

~~In short, heavy duty truck traffic associated with this project would be intermittent throughout the workday, restricted to daytime hours, would primarily travel along highways and major arterials where few noise sensitive uses are located, would not traverse residential areas or travel past sensitive receptors for extended periods of time, and would generate noise levels comparable to existing vehicle noise along other major arterials in the area. Neither the County Noise Element nor the County Noise Control Ordinance have standards that apply to individual motor vehicles (these are regulated by the California Vehicle Code).~~

~~Measures likely to be used to reduce noise impacts include limitations on the hours and days in which construction activity may occur. All vehicles will be staged either within the property lines or at designated areas as established by a County approved haul route plan.~~

~~Trucks are expected to enter and leave the site on a daily basis over the 30-month construction period, but only during working hours. The trips associated with trucks traveling off-site are based on the URBEMIS 2002/2007 assumptions associated with land uses proposed for Parcel 10R. According to the calculations in URBEMIS 2002/2007, trucks entering and exiting the site would make 140-541 round PCE trips per day (not accounting for the 1069 daily trips lost with the removal of existing residential units on Parcel 10R), traveling up to 7.530 miles each trip during the five and one-half two-month demolition and excavation phase. During the three-month site-grading phase, truck entering and exiting the site would travel~~

~~approximately 20 up to 30 miles round each trip, and would make 85 round 541 PCE trips per day. The LACDPW, Construction Division, limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. This reduces the impact on local residents by restricting most construction-based noise generation to hours when most residents are at work and not generally home. The number of truck trips traveling along the designated haul route will vary daily, depending on the nature of the construction activity. Employment of standard noise attenuation practices would be implemented as required by the LACDPW. A~~ However, as previously discussed, noise sensitive land uses located along the haul route are primarily residential in nature. Based on the information contained in **Table 5.2-5, sensitive receptors** uses within 50 feet of the haul route could experience temporary noise events ranging from 83 to 88 dB(A) from trucks, which exceeds County standards outlined above. Therefore, a temporary significant impact would result from trucks traveling to and from the project site along the haul route during the projected buildout of the project. Employment of standard noise attenuation practices would be implemented as required by the LACDPW.

Construction workers, who would generally arrive to the construction site at the beginning of the workday and leave at the end of the workday, would contribute to increases in peak and pre-peak hour traffic along roadways in the project study area. Construction worker traffic, which would be largely comprised of passenger vehicles and light pick-up trucks, would not represent a substantial percentage of peak hour volumes in the area and would not cause an audible increase in community noise levels. Therefore, noise from construction-worker traffic would be less than significant.

Vibration Impacts: The primary vibration source associated with development of the Neptune Marina Parcel 10R involves the use of pile drivers during foundation construction. ~~Less severe~~ Lesser vibration impacts could result from the use of other heavy equipment on the parcel. There is also the potential for off-site vibration impacts from haul trucks passing on streets adjacent to sensitive receptors.

~~on and off-site due to haul trucks passing on streets adjacent to sensitive receptors. Pile drivers used on the parcel, however, are the pieces of construction equipment most likely to exceed Section 12.08.560 of the County Code and cause potential off-site vibration impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone.~~

As shown in **Table 5.2-6, Vibration Source Levels for Construction Equipment**, pile driving can result in a maximum vibration level of 1.518 inches/second PPV at 25 feet. This level of vibration is above the perception threshold identified in Section 12.08.560 of the County Code, and is within the range for

architectural damage risk, which is between 0.2 and 2.0 inches/second. Therefore, temporary ground-borne vibration during pile driving would exceed the threshold of perception and would have the potential to cause damage to nearby structures. Pile driving vibration impacts would be significant. A certified structural engineer shall be retained to submit evidence that pile driving activities would not result in any structural damage to nearby structures.

A loaded heavy-duty haul truck can generate a level of vibration 0.076 inches/second PPV at 25 feet. The perception of truck traffic vibration would depend upon several factors, including road condition, vehicle speed, vehicle weight, vehicle suspension system, soil type and stratification, and distance between the truck and the receptor. Perceptible truck vibration would be intermittent and instantaneous as it would have a rapid onset and a rapid decay as the truck moves toward and away from the receptor. Section 12.08.560 of the County Code applies to any device, including motor vehicles, and, therefore, truck traffic vibrations exceed the threshold of significance and a significant impact can be concluded.

~~Pile drivers are the pieces of construction equipment most likely to cause potential off-site impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone. Because the use of pile driving equipment is required for foundation construction, vibration impacts that would occur are considered significant and unavoidable, but temporary in type.~~ **Operation Impacts; Point and Stationary Sources Noise:** ~~On-site new residential uses are considered sensitive and could be affected by on- and off-site point source noise. Operation~~ Upon build out and occupation of the proposed Neptune Marina Parcel 10R, is expected to result in increased noise increases would be due to the net increase in resident population on the site and associated vehicular traffic, to affecting both future on-site receptors and existing off-site receptors. Noise experienced at Noise at on- and off-site locations would consist of intermittent sounds associated with human activity, such as people talking, doors slamming, lawn care equipment operation, stereos, domestic animals, etc. Noise levels generated by these ~~These~~ sources typically generate noise levels of between 52 to and 62 dB(A) CNEL. Such noises are typical of a residential areas and are comparable to the types of noise presently experienced at the site. All off-site noise sensitive receptors are located a minimum of 50 feet from the project site parcel and it is expected that most of the point source noise generated on-site will have attenuated and would, therefore, not have an significant impact on these receptors. As shown in Table 5.2-7, Predicted Future Off-Site Roadway Noise Levels at Noise Sensitive Locations, Neptune Marina Parcel 10R, the existing dB(A) CNEL measured at all monitoring locations exceed County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources for the applicable designated noise zone land use. The County Noise Control Ordinance states that exterior noise

levels caused by stationary or point noise sources shall not exceed the levels identified in **Table 5.2-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources**, or the ambient noise level,¹⁶ whichever is greater. Therefore, the levels monitored have become the standard. As stated in **5.2.1.1, Characteristics of Noise**, changes in a community noise level of less than 3 dB(A) are not typically noticed by the human ear.¹⁷ As shown in **Table 5.2-7**, all expected noise increases resulting from the Neptune Marina Parcel 10R would be less than 3 dB(A). As a result, noise generated by point or stationary sources on the project site would be consistent with County of Los Angeles noise standards. Thus, noise impacts generated by the new residents located on the project site would not constitute a significant impact to on- or off-site receptors.

Operation Impacts; Mobile Source Noise: Development of the Neptune Marina Parcel 10R would increase the traffic volumes along local roadways. To evaluate potential mobile source impacts associated with increased vehicle trips, noise prediction modeling was conducted for study roadway segments that are bordered by noise sensitive land selected roadway segments adjacent to noise-sensitive land uses that could be affected by project traffic uses. Roadway segments include Washington Boulevard east of Via Marina, Via Marina south of Admiralty Way, Admiralty Way east of Via Marina, Lincoln Boulevard north of Fiji Way, Fiji Way west of Lincoln Boulevard, Mindanao Way east of Lincoln Boulevard, Panay Way east of Via Marina, Tahiti Way east of Via Marina, Marquesas Way east of Via Marina and Palawan Way east of Via Marina. Roadway geometrics and traffic volumes segments were obtained from Crain and Associates, the preparers of the traffic study for the proposed project. Scenarios modeled for these roadways are (1) existing (2007) traffic volumes; (2) existing plus project traffic volumes; and (3) future (year ~~2014~~2013) traffic volumes plus project and without project. The results of the noise modeling are shown in the **Table 5.2-78, Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations, Neptune Marina Parcel 10R**.

¹⁶ ~~Ambient noise level is defined as the existing background noise level at the time of measurement or prediction.~~

¹⁷ ~~Highway Noise Fundamentals, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 81.~~

**Table 5.2-8
Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations
Neptune Marina Parcel 10R**

Roadway Segment	Sensitive Land Uses Distance from Roadway Centerline	Existing dB(A) CNEL	Existing Plus Parcel 10R dB(A) CNEL	Increase in dB(A) CNEL	Significant Impact?	Future Without Parcel 10R dB(A) CNEL	Future With Parcel 10R dB(A) CNEL	Increase in dB(A) CNEL	Significant Impact?
<u>Washington Blvd. (east of Via Marina)</u>	Residential, 50 feet	67.9*	67.9*	0.0	NO	68.0*	68.0*	0.0	NO
<u>Via Marina (south of Admiralty)</u>	Residential, 50 feet	67.4*	67.6*	0.2	NO	67.6*	67.8*	0.2	NO
<u>Admiralty Way (east of Via Marina)</u>	Admiralty Park, 50 feet	69.2	69.3	0.1	NO	69.3	69.4	0.1	NO
<u>Lincoln Boulevard (north of Fiji Way)</u>	Daniel Freeman Hospital, 50 feet	72.5*	72.5*	0.0	NO	72.7*	72.7*	0.0	NO
<u>Fiji Way (west of Lincoln)</u>	Residential, 50 feet	66.3*	66.3*	0.0	NO	66.5*	66.5*	0.0	NO
<u>Mindanao Way (east of Lincoln)</u>	Residential, 50 feet	66.2*	66.3*	0.1	NO	66.4*	66.5*	0.1	NO
<u>Marquesas Way (east of via marina)</u>	Residential, 50 feet	56.0	56.8	0.8	NO	56.1	56.9	0.8	NO
<u>Panay Way (east of Via Marina)</u>	Residential, 50 feet	59.4	59.4	0.0	NO	59.5	59.5	0.0	NO
<u>Palawan Way (south of Washington)</u>	Recreation	61.6	61.6	0.0	NO	61.7	61.7	0.0	NO
<u>Tahiti Way (east of Via Marina)</u>	Residential, 50 feet	56.5	56.5	0.0	NO	56.7	56.7	0.0	NO

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.
* Roadway segments which exceed normally acceptable levels under the Land Use Compatibility Guidelines for Noise.

As shown, noise level increases attributable to Parcel 10R traffic under the second and third scenarios would be less than the 3 dB(A) threshold at all locations. Therefore, no significant off-site noise impacts would occur as a result of Parcel 10R operation.

As shown, noise level increases associated with project generated traffic are predicted to be less than 3 dB(A) CNEL at all locations. As previously stated, increases of less than 3 dB(A) CNEL would not exceed the off-site mobile source thresholds of significance for this analysis and would not generally be perceptible to the human ear while increases between 3 dB(A) and 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. Therefore, no significant off site noise impacts would occur as a result of project operation when compared with existing conditions.

**Table 5.2-7
Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations
Neptune Marina Parcel 10R**

Roadway Segment	Sensitive Land Uses Adjacent to Roadway, Distance from Roadway Centerline	Existing dB(A) CNEL	Existing Plus Project		Future Without Project CNEL	Future With Project CNEL	Increase in CNEL with Project	Significant Impact?
			dB(A) CNEL	Increase in CNEL				
Washington Blvd. (east of Via Marina)	Residential, 50 feet	67.9	67.9	0.0	68.0	68.0	0.0	NO
Via Marina (south of Admiralty)	Residential, 50 feet	67.4	67.6	0.2	67.5	67.7	0.2	NO
Admiralty Way (east of Via Marina)	Admiralty Park, 50 feet	69.2	69.3	0.1	69.3	69.4	0.1	NO
Lincoln Boulevard (north of Fiji Way)	Daniel Freeman Hospital, 50 feet	71.7*	71.7	0.0	71.8	71.8	0.0	NO
Fiji Way (west of Lincoln)	Residential, 50 feet	66.3	66.3	0.0	66.4	66.4	0.0	NO
Mindanao Way (east of Lincoln)	Residential, 50 feet	65.0	65.1	0.1	65.3	65.4	0.1	NO
Marquesas Way (east of via marina)	Residential 50 feet	53.8	55.1	1.3	53.9	55.2	1.3	NO
Panay Way (east of Via Marina)	Residential 50 feet	56.4	56.4	0.0	56.5	56.5	0.0	NO
Palawan Way (south of Washington)	Recreation	61.6	61.6	0.0	61.7	61.7	0.0	NO
Tahiti Way (east of Via Marina)	Residential 50 feet	54.6	54.6	0.0	54.7	54.7	0.0	NO

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.

* Roadway segments which exceed the County Land Use Compatibility Guidelines for Noise.

Conclusion:**Construction Impacts: Significant****Haul Route Noise Impacts: Significant (temporary)****Vibration Impacts: Significant, especially during pile driving****Operational Impacts; Point and Stationary Sources Noise: Less than significant****Operational Impacts; Mobile Source Noise: Less than significant****Mitigation Measures:**

Existing Regulations and Standards Applicable to the project Parcel 10R: ~~The LACDPW, Construction Division, Section 12.12.030 of the County Code~~ limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. The Los Angeles County Department of Health Services has the authority to restrict construction activities to between the hours of 7:00 AM and 7:00 PM, and no time on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line. In addition, a haul route will be reviewed and approved by the County that would limit neighborhood disturbance to the degree feasible. To further limit off-site construction noise impacts, a staging area for the storage of equipment and material will be located on Parcel 10R as far as feasible from existing residences. With regard to operations, all point sources of noise occurring on the parcel must adhere to the requirements of Section 12.08.390 of the County Code. Even with these measure in place, it would not be possible to reduce construction noise impacts within the standards set forth in the County Code, particularly during pile driving, in order to limit neighborhood disturbance to the degree feasible. A construction staging area will be identified as far as possible from existing residential uses for the storage of equipment and material while still on the project site. With regard to operations, all stationary and point sources of noise occurring on the project site must adhere to the requirements of the County of Los Angeles Ordinance No. 11773, Section 12.08.390.

Mitigation Measures Recommended by the EIR:

The project application shall implement **Mitigation Measures 5.2-1 through 5.2-3-5** to reduce significant noise and vibration impacts to less than significant levels the extent feasible.

Conclusion:

Construction Impacts: Significant and unavoidable;

Haul Route Noise Impacts: Significant and unavoidable;

Vibration Impacts: Significant and unavoidable;

Operational Impacts; Point and Stationary Sources ~~Source Noise:~~ Less than significant;

Operational Impacts; Mobile Source Noise: Less than significant ~~after mitigation.~~

5.2.4.3.3 Neptune Marina Parcel FF Project

The applicable thresholds of significance are listed below followed by ~~analysis of the significance the noise impact analysis for Parcel FF of any potential impacts.~~ Mitigation measures are also identified which would reduce or avoid potentially significant adverse impacts, ~~if applicable.~~

5.2.4.3.3.1 **Threshold: Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance?**

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

Threshold: 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?

Threshold: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Analysis: The significance of noise impacts is based on both the Land Use Compatibility Guidelines ~~for Noise~~, identified in **Figure 5.2-3**, and typical community responses to changes in noise levels. Additionally, if proposed ~~on-site~~ uses within Parcel FF are subject to point source noise levels originating on or off ~~the project site~~ the parcel that are above County Noise Control Ordinance standards (identified in **Tables 5.2-2 and 5.2-3**), a significant ~~on-site~~ noise impact would occur. Note that the County Noise Control Ordinance does not govern individual motor vehicles. These are governed by the California Vehicle Code.

Construction Impacts: Construction of the Neptune Marina Parcel FF would not be phased. Demolition ~~and excavation~~ activities ~~on the existing project site~~ are expected to occur over a ~~one month~~ 2.5-month period and are anticipated to begin in ~~April~~ October 2010 ~~2011~~. ~~Demolition of existing uses and Buildout construction~~ of the Neptune Marina Parcel FF is anticipated to take ~~18-24~~ months to complete. Given this schedule, anticipated buildout of the project would occur in ~~September~~ October 2011 ~~2013~~. Construction of the proposed project would result in increases in ambient noise levels in the project area on an intermittent basis. This temporary increase in noise will likely be noticeable to nearby residents and on- and off-site employees, as well as visitors to Marina del Rey. It must be emphasized that noise levels would fluctuate depending on the construction activity, equipment type and duration of use, the distance between the noise source and receptor and the presence or absence of noise attenuation barriers.

Construction of the project would involve the temporary use of heavy equipment, such as pile driving, tractors (dozers), loaders, concrete mixers, and cranes. Smaller equipment, such as jackhammers, pneumatic tools, saws and hammers, would also likely be used throughout the site during demolition

and construction stages. Construction activities will also include the installation of approximately 170 feet of water main to be installed within Via Marina to serve the Parcel FF.

The EPA has compiled data regarding the noise-generating characteristics of specific types of construction equipment. Based on this data, **Table 5.2-5, Noise Levels of Typical Construction Equipment**, presents noise levels of typical construction equipment, which could be used on site during various phases of construction. As shown in **Table 5.2-5**, noise levels generated by heavy equipment can range from approximately ~~68-76~~ dB(A) to noise levels in excess of 100 dB(A) when measured at 50 feet. However, much of this noise would diminish rapidly with distance from the construction site at a rate of approximately 6 dB(A) per doubling of distance.

Based on a review of the site plan, construction activity would occur as close as 50 feet from existing noise sensitive residential uses located east of ~~the project site~~ Parcel FF. Uses at these locations could experience noise levels that reach ~~94-100~~ dB(A) ~~for short time during pile driving, and noise levels up to 88 dB(A) during other construction activities periods.~~ Construction activity on ~~the project site~~ Parcel FF would also occur as close as 125 feet from existing residential uses located west of the project site along Via Marina, resulting in noise levels of up to ~~825~~ dB(A). These, as well as any other locations ~~that experience an with an uninterrupted line of sight to the construction noise sources~~ uninterrupted line of sight to the construction, could be temporarily exposed to exterior noise levels which could exceed the County's Noise Control Ordinance standards for construction equipment noise levels identified in **Table 5.2-3**. Therefore, construction noise is considered a temporary significant impact. ~~Mitigation measures for construction noise impacts are provided below.~~

~~Construction noise would represent a short-term significant impact based on the potential to exceed County noise standards and the near two-year construction period.~~

Haul Route Noise Impacts: Project construction will require the use of heavy trucks to haul equipment and materials to the site, as well as transport debris and earth excavated during demolition of existing structures and grading of the site. During the initial 2.5 months of demolition and excavation, as many as 74 truck trips would arrive to and leave the site daily. During the remainder of Parcel FF construction, the maximum number of daily truck trips would be 40 (Crain & Associates, January 29, 2008).

Off-site sensitive receptors along the truck route that would have a direct line of sight to the trucks would experience temporary, instantaneous noise levels up to 88 dB(A) at 50 feet from the roadway. Receptors located further away would experience less noise due to their greater distance from the roadway and to any intervening topography and/or structures that may exist between them and the noise source. This noise impact would be temporary and instantaneous in nature as the trucks pass by the receptors. Truck

~~traffic noise at the receptors would diminish rapidly as the trucks travel away from them. Construction of the Neptune Marina Parcel FF will require the use of heavy trucks to haul equipment and materials to the site, as well as transport debris and earth excavated during demolition of existing structures and grading of the site.~~

To limit noise impacts associated with construction traffic on nearby land uses, truck haul routes have been established which route vehicles away from sensitive uses to the maximum extent feasible. As depicted in **Figure 5.2-6**, the haul route extends north on Via Marina to Washington Boulevard, then east on Lincoln Boulevard and south on the Marina Freeway.

~~To minimize potential neighborhood disruption and conflicts along the haul route, a construction traffic control plan will be developed for use during construction. The plan will identify all traffic control measures, signs and time limits to be implemented by the construction contractor during the duration of demolition and construction activity for the duration of construction. All vehicles will be staged either within the property or at designated areas as established by a County approved haul route plan.~~

~~In short, heavy duty truck traffic associated with this project would be intermittent throughout the workday, restricted to daytime hours, would primarily travel along highways and major arterials where few noise sensitive uses are located, would not traverse residential areas or travel past sensitive receptors for extended periods of time, and would generate noise levels comparable to existing vehicle noise along other major arterials in the area. Individual truck trips are point sources of noise. Neither the County Noise Element nor the County Noise Control Ordinance have standards that apply to individual motor vehicles (these are regulated by the California Vehicle Code).~~

~~Measures likely to be used to reduce noise impacts include limitations on the hours and days in which construction activity may occur. All vehicles will be staged either within the property lines or at designated areas as established by a County approved haul route plan.~~

~~Trucks are expected to enter and leave the site on a daily basis over the near two-year construction period, but only during working hours. The trips associated with trucks traveling off site are based on the URBEMIS 20022007 assumptions associated with land uses proposed for Parcel FF. According to URBEMIS 20022007 calculations prepared for the project, trucks entering and exiting the site would make one round 74.40 PCE trips per day, traveling 7.5 up to 30 miles each trip during the two and half-month demolition and excavation phase. During the three-month site-grading phase, trucks entering and exiting the site would travel approximately 20 up to 30 miles round each trip, and would make 22.4 round 288 PCE trips per day. The LACDPW, Construction Division, limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. This reduces the~~

~~impact on local residents by restricting most construction-based noise generation construction noise to hours when to when most residents are at work and not generally home. The number of truck trips traveling along the designated haul route will vary daily, depending on the nature of the construction activity. Employment of all standard noise attenuation practices would be implemented as required by the LACDPW. However, as previously discussed, noise sensitive land uses located along the haul route are primarily residential in nature. Based on the information contained in Table 5.2-5, uses sensitive receptors within 50 feet of the haul route could experience temporary noise events ranging from 83 to 88 dB(A) from trucks, which exceeds County standards outlined above. Therefore, a temporary significant impact would result from trucks traveling to and from the project site along the haul route during the projected buildout of the project. Employment of all standard noise attenuation practices would be implemented as required by the LACDPW.~~

~~Construction workers, who would generally arrive to the construction site at the beginning of the workday and leave at the end of the workday, would contribute to increases in peak and pre-peak hour traffic along roadways in the project study area. Construction worker traffic, which would be largely comprised of passenger vehicles and light pick-up trucks, would not represent a substantial percentage of peak hour volumes in the area and would not cause an audible increase in community noise levels. Therefore, noise from construction-worker traffic would be less than significant.~~

Vibration Impacts: The primary vibration source associated with development of the Neptune Marina Parcel FF involves the use of pile drivers during foundation construction. ~~Lesser vibration impacts could result from the use of other heavy equipment on the parcel. There is also the potential for off-site vibration impacts from haul trucks passing on streets adjacent to sensitive receptors.~~

~~Vibration from pile drivers is expected to exceed the perception threshold identified in Section 12.08.560 of the County Code and to cause potential off-site vibration impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone. A certified structural engineer shall be retained to submit evidence that pile driving activities would not result in any structural damage to nearby structures.~~

~~As shown in Table 5.2-6, **Vibration Source Levels for Construction Equipment**, pile driving can result in a maximum vibration level of 1.518 inches/second PPV at 25 feet. This level of vibration is above the perception threshold identified in Section 12.08.560 of the County Code, and is within the range for architectural damage risk, which is between 0.2 and 2.0 inches/second. Therefore, temporary ground-~~

~~borne vibration during pile driving would exceed the threshold of perception and would have the potential to cause damage to nearby structures. Pile driving vibration impacts would be significant.~~

~~Less severe vibration impacts could result from the use of other heavy equipment on- and off-site due to haul trucks passing on streets adjacent to sensitive receptors. Pile drivers are the pieces of construction equipment most likely to cause potential off-site impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone. Because the use of pile driving equipment is required for foundation construction, vibration impacts that would occur are considered significant and unavoidable but temporary in type. A loaded heavy-duty haul truck can generate a level of vibration 0.076 inches/second PPV at 25 feet. The perception of truck traffic vibration would depend upon several factors, including road condition, vehicle speed, vehicle weight, vehicle suspension system, soil type and stratification, and distance between the truck and the receptor. Perceptible truck vibration would be intermittent and instantaneous as it would have a rapid onset and a rapid decay as the truck moves toward and away from the receptor. Section 12.08.560 of the County Code applies to any device, including motor vehicles, and, therefore, truck traffic vibrations exceed the threshold of significance and a significant impact can be concluded.~~

~~**Operation Impacts; Point and Stationary Source Noise:** On-site new ~~residential~~ uses are considered sensitive and residences on Parcel FF could be affected by on- and off-site point source noise. Operation of the proposed Neptune Marina Parcel FF is expected to ~~result in increased~~ generate new point source noises due to the introduction of a residential population on the site and associated vehicular traffic, to both future that could be audible on-site receptors and existing off-site receptors elsewhere on the project site and at off-site locations. Noise ~~The point source experienced at noise on and off site locations~~ would consist of intermittent sounds associated with human activity, such as people talking, doors slamming, lawn care equipment operation, stereos, domestic animals, etc. Noise levels generated by ~~these~~ These sources typically generate noise levels of ~~between 52 to and 62 dB(A) CNEL~~. Such noises are typical of a residential areas and are comparable to the types of noise presently experienced at the site and in the surrounding area. All sensitive receptors are located a minimum of 50 feet from the project site and it is expected that most of the point source noise generated on site will have attenuated and would, therefore, not have an ~~significant~~ impact on these receptors. ~~As shown in Table 5.2-8, Predicted Future Off-Site Roadway Noise Levels at Noise Sensitive Locations, Neptune Marina Parcel FF,~~ the existing dB(A) CNEL measured at all monitoring locations exceed County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources for the applicable designated noise zone land use. The County Noise Control Ordinance states that exterior noise levels caused by stationary or point noise sources shall not exceed the levels identified in ~~Table 5.2-2, County of Los Angeles Exterior Noise Standards for~~~~

~~Stationary and Point Noise Sources~~, or the ambient noise level,¹⁸ whichever is greater. Therefore, the levels monitored have become the standard. As stated in 5.2.1.1, **Characteristics of Noise**, changes in a community noise level of less than 3 dB(A) are not typically noticed by the human ear.¹⁹ As shown in **Table 5.2-8**, all expected noise increases resulting from the Neptune Marina Parcel FF would be less than 3 dB(A). As a result, noise generated by point or stationary sources on the project site would be consistent with County of Los Angeles noise standards. Thus, noise impacts generated by the new residents located on the project site would not constitute a significant impact to on- or off-site receptors.

Operation Impacts; Mobile Source Noise: Development of the project would increase the traffic volumes along local roadways. To evaluate potential noise impacts associated with increased vehicle trips, noise prediction modeling was conducted for selected roadway segments adjacent to noise-sensitive land uses that could be affected by project traffic~~study roadway segments that are bordered by noise sensitive land uses~~. Roadway segments include Washington Boulevard east of Via Marina, Via Marina south of Admiralty Way, Admiralty Way east of Via Marina, Lincoln Boulevard north of Fiji Way, Fiji Way west of Lincoln Boulevard, Mindanao Way east of Lincoln Boulevard, Panay Way east of Via Marina, Tahiti Way east of Via Marina, Marquesas Way east of Via Marina and Palawan Way east of Via Marina. Roadway geometrics and traffic volumes segments were obtained from Crain and Associates, the preparers of the traffic study for the proposed project. Scenarios modeled for these roadways are (1) existing (2007) traffic volumes; (2) existing plus project traffic volumes; and (3) future (year ~~2011~~2013) traffic volumes plus project and without project. The results of the noise modeling are shown in the **Table 5.2-89, Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations, Neptune Marina Parcel FF.**

Table 5.2-8
Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations
Neptune Marina Parcel FF

Roadway Segment	Sensitive Land Uses Distance from Roadway Centerline	Existing dB(A) CNEL	Existing Plus Project		Future Without Project CNEL	Future With Project CNEL	Increase in CNEL with Project	Significant Impact?
			dB(A) CNEL	Increase in CNEL				
Washington Blvd. (east of Via Marina)	Residential, 50 feet	67.9	67.9	0.0	68.0	68.0	0.0	NO
Via Marina (south of Admiralty)	Residential, 50 feet	67.4	67.5	0.1	67.5	67.6	0.1	NO
Admiralty Way (east of Via Marina)	Admiralty Park, 50 feet	69.2	69.2	0.0	69.3	69.3	0.0	NO

¹⁸ Ambient noise level is defined as the existing background noise level at the time of measurement or prediction.

¹⁹ *Highway Noise Fundamentals*, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 81.

Roadway Segment	Sensitive Land Uses Distance from Roadway Centerline	Existing dB(A) CNEL	Existing		Future Without Project CNEL	Future With Project CNEL	Increase in CNEL	Increase in CNEL with Project	Significant Impact?
			Plus Project dB(A) CNEL	Increase in CNEL					
Lincoln Boulevard (north of Fiji Way)	Daniel Freeman Hospital, 50 feet	71.7*	71.7	0.0	71.8	71.8	0.0	NO	
Fiji Way (west of Lincoln)	Residential, 50 feet	66.3	66.3	0.0	66.4	66.4	0.0	NO	
Mindanao Way (east of Lincoln)	Residential, 50 feet	65.0	65.2	0.2	65.3	65.3	0.2	NO	
Marquesas Way (east of via marina)	Residential, 50 feet	53.8	54.7	0.9	53.9	54.8	0.9	NO	
Panay Way (east of Via Marina)	Residential, 50 feet	56.4	56.4	0.0	56.5	56.5	0.0	NO	
Palawan Way (south of Washington)	Recreation	61.6	61.6	0.0	61.7	61.7	0.0	NO	
Tahiti Way (east of Via Marina)	Residential, 50 feet	54.6	54.6	0.0	54.7	54.7	0.0	NO	

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.

* Roadway segments which exceed the County Land Use Compatibility Guidelines for Noise.

As shown, noise level increases associated with project generated traffic are predicted to be less than 3 dB(A) CNEL at all locations. As previously stated, increases of less than 3 dB(A) CNEL would not exceed the off site mobile source thresholds of significance for this analysis and would not generally be perceptible to the human ear while increases between 3 dB(A) and 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. Therefore, no significant off-site noise impacts would occur as a result of project operation when compared with existing conditions.

**Table 5.2-9
Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations
Neptune Marina Parcel FF**

Roadway Segment	Sensitive Land Uses Distance from Roadway Centerline	Existing dB(A) CNEL	Existing Plus Parcel FF dB(A) CNEL	Increase in dB(A) CNEL	Significant Impact?	Future Without Parcel FF dB(A) CNEL	Future With Parcel FF dB(A) CNEL	Increase in dB(A) CNEL	Significant Impact?
Washington Blvd. (east of Via Marina)	Residential. 50 feet	67.9*	67.9*	0.0	NO	68.0*	68.0*	0.0	NO
Via Marina (south of Admiralty)	Residential. 50 feet	67.4*	67.5*	0.1	NO	67.6*	67.7*	0.1	NO
Admiralty Way (east of Via Marina)	Admiralty Park, 50 feet	69.2	69.2	0.0	NO	69.3	69.4	0.1	NO
Lincoln Boulevard (north of Fiji Way)	Daniel Freeman Hospital, 50 feet	72.5*	72.5*	0.0	NO	72.7*	72.7*	0.0	NO
Fiji Way (west of Lincoln)	Residential. 50 feet	66.3*	66.3*	0.0	NO	66.5*	66.5*	0.0	NO
Mindanao Way (east of Lincoln)	Residential. 50 feet	66.2*	66.3*	0.1	NO	66.4*	66.4*	0.0	NO
Marquesas Way (east of via marina)	Residential. 50 feet	56.0	56.6	0.6	NO	56.1	56.7	0.6	NO
Panay Way (east of Via Marina)	Residential. 50 feet	59.4	59.4	0.0	NO	59.5	59.5	0.0	NO
Palawan Way (south of Washington)	Recreation	61.6	61.6	0.0	NO	61.7	61.7	0.0	NO
Tahiti Way (east of Via Marina)	Residential. 50 feet	56.5	56.5	0.0	NO	56.7	56.7	0.0	NO

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.
* Roadway segments which exceed normally acceptable levels under the Land Use Compatibility Guidelines for Noise.

As shown, noise level increases attributable to Parcel FF traffic under the second and third scenarios would be less than the 3 dB(A) threshold at all locations. Therefore, no significant off-site noise impacts would occur as a result of Parcel FF operation.

Conclusion:

Construction Impacts: Significant;

Haul Route Noise Impacts: Significant (temporary);

Vibration Impacts: Significant, especially during pile driving;

Operational Impacts; Point and Stationary Sources ~~Source Noise:~~ Less than significant;

Operational Impacts; Mobile Source Noise: Less than significant.

Mitigation Measures:

Existing Regulations and Standards Applicable to the Project ~~Parcel FF:~~ Section 12.12.030 of the County Code ~~The LACDPW, Construction Division,~~ limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. The Los Angeles County Department of Health Services has the authority to restrict construction activities to between the hours of 7:00 AM and 7:00 PM and no time on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line. In addition, a haul route will be reviewed and approved by the County that would limit neighborhood disturbance to the degree feasible. To further limit off-site construction noise impacts, a staging area for the storage of equipment and material will be located on Parcel FF as far as feasible from existing residences. With regard to operations, all point sources of noise occurring on the parcel must adhere to the requirements of Section 12.08.390 of the County Code. Even with these measure in place, it would not be possible to reduce construction noise impacts within the standards set forth in the County Code, particularly during pile driving in order to limit neighborhood disturbance to the degree feasible. A construction staging area will be identified within each parcel as far as possible from existing residential uses for the storage of equipment and material. With regard to operations, all stationary and point sources of noise occurring on the project site must adhere to the requirements of the County of Los Angeles Ordinance No. 11773, Section 12.08.390.

Mitigation Measures Recommended by the EIR:

The project application shall implement mitigation measures 5.2-1 through 5.2-3-5 to reduce significant noise and vibration impacts to less than significant levels ~~the extent feasible.~~

Conclusion:

Construction Impacts: Significant and unavoidable;

Haul Route Noise Impacts: Significant and unavoidable;

Vibration Impacts: Significant and unavoidable;

Operational Impacts; Point and Stationary Sources Source Noise: Less than significant;

Operational Impacts; Mobile Source Noise: Less than significant with implementation of mitigation.

Noise Impacts and Mitigation Measures: Neptune Marina Parcel FF Project

5.2.4.3.4 Woodfin Suite Hotel and Timeshare Resort Project (Parcel 9U)

The applicable thresholds of significance are listed below followed by ~~analysis of the significance of any potential impacts~~ the noise impact analysis for Parcel 9U. Mitigation measures are also identified which would reduce or avoid potentially significant adverse impacts, ~~if applicable~~.

5.2.4.3.4.1 Threshold: Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance?

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

Threshold: 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?

Threshold: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Analysis: The significance of noise impacts is based on both the Land Use Compatibility Guidelines for Noise identified in **Figure 5.2-3**, and typical community responses to changes in noise levels. Additionally, if proposed on-site uses are subject to point source noise levels originating on or off the ~~project site~~ parcel that are above County Noise Control Ordinance standards (identified in **Tables 5.2-2 and 5.2-3**), a significant ~~on-site~~ noise impact would occur. Note that the County Noise Control Ordinance does not govern individual motor vehicles. These are governed by the California Vehicle Code.

Construction Impacts: Construction of the Woodfin Suite Hotel and Timeshare Resort would not be phased. Construction is anticipated to take approximately ~~24-30~~ months, beginning in ~~May 2009~~ 2011. Given this schedule, anticipated buildout of the project would occur ~~late in 2011~~ 2013. Construction of the proposed project would result in increases in ambient noise levels in the project area on an intermittent basis. This temporary increase in noise will likely be noticeable to nearby residents and on- and off-site employees, as well as visitors to Marina del Rey. It must be emphasized that noise levels would fluctuate depending on the construction activity, equipment type and duration of use, the distance between the noise source and receptor, and the presence or absence of noise attenuation barriers.

Construction on Parcel 9U ~~of the project~~ would involve the temporary use of heavy equipment, such as pile drivers, tractors (dozers), loaders, concrete mixers, and cranes. Smaller equipment, such as jackhammers, pneumatic tools, saws, and hammers, would also likely be used throughout the site during demolition and construction ~~stages~~. Although not required for the Woodfin Suite Hotel and Timeshare

Resort project, approximately 570 feet of water main will be installed within Via Marina that would serve Parcel 9U as part of the water supply infrastructure improvements in Marina del Rey.

The EPA has compiled data regarding the noise-generating characteristics of specific types of construction equipment. Based on this data, **Table 5.2-5, Noise Levels of Typical Construction Equipment**, presents noise levels of typical construction equipment, which could be used on site during various phases of construction. As shown in **Table 5.2-5**, noise levels generated by heavy equipment can range from approximately ~~68-76~~ dB(A) to noise levels in excess of 100 dB(A) when measured at 50 feet. However, much of this noise would diminish rapidly with distance from the construction site at a rate of approximately 6 dB(A) per doubling of distance.

Based on a review of the site plan, construction activity would occur as close as 125 feet from existing noise sensitive residential uses located west of the ~~project site parcel~~ along Via Marina. These, as well as any other locations ~~that experience an with an uninterrupted line of sight to the construction noise sources~~ uninterrupted line of sight to the construction, could be temporarily exposed to exterior noise levels which could exceed the County's Noise Control Ordinance standards for construction equipment noise levels identified in **Table 5.2-3**. Therefore, construction noise is considered a temporary significant impact. ~~Mitigation measures for construction noise impacts are provided below.~~

Construction noise would represent a short-term significant impact based on the potential to exceed County noise standards ~~and over the near two-year~~ 230-month construction period.

Haul Route Noise Impacts: Project construction will require the use of heavy trucks to haul equipment and materials to the site, as well as transport debris and earth excavated during demolition of existing structures and grading of the site. During the initial 1.5 months of demolition and excavation, as many as 144 truck trips would arrive to and leave the site daily. During the remainder of Parcel 9U construction, the maximum number of daily truck trips would be 20 (Crain & Associates, January 29, 2008).

Off-site sensitive receptors along the truck route that would have a direct line of sight to the trucks would experience temporary, instantaneous noise levels up to 88 dB(A) at 50 feet from the roadway. Receptors located further away would experience less noise due to their greater distance from the roadway and to any intervening topography and/or structures that may exist between them and the noise source. This noise impact would be temporary and instantaneous in nature as the trucks pass by the receptors. Truck traffic noise at the receptors would diminish rapidly as the trucks travel away from them. ~~Construction of the Woodfin Suite Hotel and Timeshare Resort will require the use of heavy trucks to haul equipment and materials to the site, as well as transport earth excavated during site grading.~~

To limit noise impacts associated with construction traffic on nearby land uses, truck haul routes have been established which route vehicles away from sensitive uses to the maximum extent feasible. As depicted in **Figure 5.2-6**, the haul route extends north on Via Marina to Washington Boulevard, then east on Lincoln Boulevard and south on the Marina Freeway.

To minimize potential neighborhood disruption and conflicts along the haul route, a construction traffic control plan will be developed for use during construction. The plan will identify all traffic control measures, signs and time limits to be implemented by the construction contractor ~~throughout for the duration of construction. All vehicles will be staged either within the parcel or at designated areas as established by a County approved haul route plan.~~

~~In short, heavy duty truck traffic associated with this project would be intermittent throughout the workday, restricted to daytime hours, would primarily travel along highways and major arterials where few noise sensitive uses are located, would not traverse residential areas or travel past sensitive receptors for extended periods of time, and would generate noise levels comparable to existing vehicle noise along other major arterials in the area. Neither the County Noise Element nor the County Noise Control Ordinance have standards that apply to individual motor vehicles (these are regulated by the California Vehicle Code).~~

~~duration of construction activity. Measures likely to be used to reduce noise impacts include limitations on the hours and days in which construction activity may occur. All vehicles will be staged either within the property lines or at designated areas as established by a County approved haul route plan.~~

~~Trucks are expected to enter and leave the site on a daily basis over the nearly two-year construction period, but only during working hours. The trips associated with trucks traveling off-site are based on the URBEMIS 20022007 assumptions associated with land uses proposed for Parcel 9U. According to URBEMIS 20022007 calculations prepared for the project, trucks entering and exiting the site would travel approximately 20 up to 30 miles round each trip, and would make 23.8 round 78352 PCE trips per day during the three three one and a half months demolition and excavation site-grading phase. The LACDPW, Construction Division, limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. This reduces the impact on local residents by restricting most construction-based noise generation construction noise to hours when to when most residents are at work and not generally home. The number of truck trips traveling along the designated haul route will vary daily, depending on the nature of the construction activity. Employment of all standard noise attenuation practices would be implemented as required by the LACDPW. A However, as previously discussed, noise sensitive land uses located along the haul route are primarily residential in nature. Based on the information contained in **Table 5.2-5**, uses sensitive receptors within 50 feet of the~~

haul route could experience temporary noise events ranging from 83 to 88 dB(A) from trucks, which exceeds County standards outlined above. Therefore, a temporary significant impact would result from trucks traveling to and from the project site along the haul route during the projected buildout of the project. Employment of all standard noise attenuation practices would be implemented as required by the LACDPW.

Construction workers, who would generally arrive to the construction site at the beginning of the workday and leave at the end of the workday, would contribute to increases in peak and pre-peak hour traffic along roadways in the project study area. Construction worker traffic, which would be largely comprised of passenger vehicles and light pick-up trucks, would not represent a substantial percentage of peak hour volumes in the area and would not cause an audible increase in community noise levels. Therefore, noise from construction-worker traffic would be less than significant.

Vibration Impacts: The primary vibration source associated with development of the Woodfin Suite Hotel and Timeshare Resort involves the use of pile drivers during foundation construction. Lesser vibration impacts could result from the use of other heavy equipment on the parcel. There is also the potential for off-site vibration impacts from haul trucks passing on streets adjacent to sensitive receptors.

Vibration from pile drivers used on the parcel would likely to exceed Section 12.08.560 of the County Code and cause potential off-site vibration impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone.

As shown in Table 5.2-6, Vibration Source Levels for Construction Equipment, pile driving can result in a maximum vibration level of 1.518 inches/second PPV at 25 feet. This level of vibration is above the perception threshold identified in Section 12.08.560 of the County Code, and is within the range for architectural damage risk, which is between 0.2 and 2.0 inches/second. Therefore, temporary groundborne vibration during pile driving would exceed the threshold of perception and would have the potential to cause damage to nearby structures. Pile driving vibration impacts would be significant. A certified structural engineer shall be retained to submit evidence that pile driving activities would not result in any structural damage to nearby structures.

~~Less severe vibration impacts could result from the use of other heavy equipment on- and off-site due to haul trucks passing on streets adjacent to sensitive receptors. Pile drivers are the pieces of construction equipment most likely to cause potential off-site impacts. Pile drivers create a high intensity, repetitious~~

~~noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone. Because the use of pile driving equipment is required for foundation construction, vibration impacts that would occur are considered significant and unavoidable, but temporary in type. A loaded heavy-duty haul truck can generate a level of vibration 0.076 inches/second PPV at 25 feet. The perception of truck traffic vibration would depend upon several factors, including road condition, vehicle speed, vehicle weight, vehicle suspension system, soil type and stratification, and distance between the truck and the receptor. Perceptible truck vibration would be intermittent and instantaneous as it would have a rapid onset and a rapid decay as the truck moves toward and away from the receptor. Section 12.08.560 of the County Code applies to any device, including motor vehicles, and, therefore, truck traffic vibrations exceed the threshold of significance and a significant impact can be concluded.~~

~~**Operation Impacts; Point and Stationary Source Noise:** Operation of Upon buildout and occupation, the proposed Woodfin Suite Hotel and Timeshare Resort is expected to result in increased noise due to the introduction of a transient population on the site parcel and associated vehicular traffic, that would be audible to both future on-site receptors and existing off-site receptors. Noise experienced at Noise at on-site and off-site locations would consist of intermittent sounds associated with human activity similar to a residential use, such as people talking, doors slamming, lawn care equipment operation, stereos, etc. Noise levels generated by These sources typically generate noise levels of between 52 to and 62 dB(A) CNEEL. Such noises are typical of a residential area and are comparable to the types of noise presently experienced from existing surrounding residential uses at the site and in the surrounding area. All sensitive receptors are located a minimum of 50 feet from the project site and it is expected that most of the noise generated on site the parcel will have attenuated and would, therefore, not have an a significant impact on these receptors. As shown in Table 5.2-9, Predicted Future Off Site Roadway Noise Levels at Noise Sensitive Locations, Woodfin Suite Hotel and Timeshare Resort, the existing dB(A) CNEEL measured at all monitoring locations exceed County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources for the applicable designated noise zone land use. The County Noise Control Ordinance states that exterior noise levels caused by stationary or point noise sources shall not exceed the levels identified in Table 5.2-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources, or the ambient noise level,²⁰ whichever is greater. Therefore, the levels monitored have become the standard. As stated in 5.2.1.1, Characteristics of Noise, changes in a community noise level of less than 3 dB(A) are not typically noticed by the human ear.²¹ As shown in~~

²⁰ ~~Ambient noise level is defined as the existing background noise level at the time of measurement or prediction.~~

²¹ ~~Highway Noise Fundamentals, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 81.~~

~~Table 5.2-9, all expected noise increases resulting from the Woodfin Suite Hotel and Timeshare Resort would be less than 3 dB(A). As a result, noise generated by point or stationary sources on the project site would be consistent with County of Los Angeles noise standards. Thus, noise impacts generated by the transient population located on the project site would not constitute a significant impact to on-site or off-site receptors.~~

Operation Impacts; Mobile Source Noise: Development of the project would increase the traffic volumes along local roadways. To evaluate potential impacts associated with increased vehicle trips, noise prediction modeling was conducted for ~~study selected roadway segments adjacent to noise-sensitive land uses that could be affected by project traffic roadway segments that are bordered by noise-sensitive land uses.~~ Roadway segments include Washington Boulevard east of Via Marina, Via Marina south of Admiralty Way, Admiralty Way east of Via Marina, Lincoln Boulevard north of Fiji Way, Fiji Way west of Lincoln Boulevard, Mindanao Way east of Lincoln Boulevard, Panay Way east of Via Marina, Tahiti Way east of Via Marina, Marquesas Way east of Via Marina and Palawan Way east of Via Marina. Roadway geometrics and traffic volumes segments were obtained from Crain and Associates, the preparers of the traffic study for the proposed project. Scenarios modeled for these roadways are (1) existing (2007) traffic volumes; (2) existing plus project traffic volumes; and (3) future (year ~~2011~~2013) traffic volumes plus project and without project. The results of the noise modeling are shown in the **Table 5.2-910, Predicted Future Off-Site Roadway Noise Levels at Noise-Sensitive Locations, Woodfin Suite Hotel and Timeshare Resort (Parcel 9U).**

**Table 5.2-9
Predicted Future Off-Site Roadway Noise Levels at Noise Sensitive Locations
Woodfin Suite Hotel and Timeshare Resort**

Roadway Segment	Sensitive Land Uses Distance from Roadway Centerline	Existing dB(A) CNEL	Existing Plus Project dB(A) CNEL	Increase in CNEL	Future Without Project CNEL	Future With Project CNEL	Increase in CNEL with Project	Significant Impact?
Washington Blvd. (east of Via Marina)	Residential, 50 feet	67.9	67.9	0.0	68.0	68.0	0.0	NO
Via Marina (south of Admiralty)	Residential, 50 feet	67.4	67.7	0.3	67.5	67.8	0.3	NO
Admiralty Way (east of Via Marina)	Admiralty Park, 50 feet	69.2	69.3	0.1	69.3	69.4	0.1	NO
Lincoln Boulevard (north of Fiji Way)	Daniel Freeman Hospital, 50 feet	71.7*	71.7	0.0	71.8	71.8	0.0	NO
Fiji Way (west of Lincoln)	Residential, 50 feet	66.3	66.3	0.0	66.4	66.4	0.0	NO
Mindanao Way (east of Lincoln)	Residential, 50 feet	65.0	65.1	0.1	65.3	65.4	0.1	NO
Marquesas Way (east of via marina)	Residential, 50 feet	53.8	53.8	0.0	53.9	53.9	0.0	NO
Panay Way (east of Via Marina)	Residential, 50 feet	56.4	56.4	0.0	56.5	56.5	0.0	NO
Palawan Way (south of Washington)	Recreation	61.6	61.6	0.0	61.7	61.7	0.0	NO
Tahiti Way (east of Via Marina)	Residential, [Format] 50 feet	54.6	54.6	0.0	54.7	54.7	0.0	NO

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.

* Roadway segments which exceed the County Land Use Compatibility Guidelines for Noise.

As shown, noise level increases associated with project generated traffic are predicted to be less than 3 dB(A) CNEL at all locations. As previously stated, increases of less than 3 dB(A) CNEL would not exceed the off-site mobile source thresholds of significance for this analysis and would not generally be perceptible to the human ear while increases between 3 dB(A) and 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. Therefore, no significant off-site noise impacts would occur as a result of project operation when compared with existing conditions.

Table 5.2-10
Off-Site Roadway Noise Levels at Noise-Sensitive Locations
Woodfin Suite Hotel and Timeshare Resort (Parcel 9U)

Roadway Segment	Sensitive Land Uses Distance from Roadway Centerline	Existing dB(A) CNEL	Existing Plus Parcel 9U dB(A) CNEL	Increase in dB(A) CNEL	Significant Impact?	Future Without Parcel 9U dB(A) CNEL	Future With Parcel 9U dB(A) CNEL	Increase in dB(A) CNEL	Significant Impact?
<u>Washington Blvd.</u> (east of Via Marina)	Residential, 50 feet	67.9*	67.9*	0.0	NO	68.0*	68.1*	0.1	NO
<u>Via Marina</u> (south of Admiralty)	Residential, 50 feet	67.4*	67.7*	0.3	NO	67.6*	67.8*	0.2	NO
<u>Admiralty Way</u> (east of Via Marina)	Admiralty Park, 50 feet	69.2	69.3	0.1	NO	69.3	69.4	0.1	NO
<u>Lincoln Boulevard</u> (north of Fiji Way)	Daniel Freeman Hospital, 50 feet	72.5*	72.5*	0.0	NO	72.7*	72.7*	0.0	NO
<u>Fiji Way</u> (west of Lincoln)	Residential, 50 feet	66.3*	66.3*	0.0	NO	66.5*	66.5*	0.0	NO
<u>Mindanao Way</u> (east of Lincoln)	Residential, 50 feet	66.2*	66.4*	0.2	NO	66.4*	66.5*	0.1	NO
<u>Marquesas Way</u> (east of via marina)	Residential, 50 feet	56.0	56.0	0.0	NO	56.1	56.1	0.0	NO
<u>Panay Way</u> (east of Via Marina)	Residential, 50 feet	59.4	59.4	0.0	NO	59.5	59.5	0.0	NO
<u>Palawan Way</u> (south of Washington)	Recreation	61.6	61.6	0.0	NO	61.7	61.7	0.0	NO
<u>Tahiti Way</u> (east of Via Marina)	Residential, 50 feet	56.5	56.5	0.0	NO	56.7	56.7	0.0	NO

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.
 * Roadway segments which exceed normally acceptable levels under the Land Use Compatibility Guidelines for Noise.

As shown, noise level increases attributable to Parcel 9U traffic under the second and third scenarios would be less than the 3 dB(A) threshold at all locations. Therefore, no significant off-site noise impacts would occur as a result of Parcel 9U operation.

Conclusion:

Construction Impacts: Significant;

Haul Route Noise Impacts: Significant (temporary);

Vibration Impacts: Significant, especially during pile driving;

Operational Impacts; Point and Stationary Sources ~~Source Noise:~~ Less than significant;

Operational Impacts; Mobile Source Noise: Less than significant.

Mitigation Measures:

Existing Regulations and Standards Applicable to ~~the Project~~ Parcel 9U: Section 12.12.030 of the County Code~~The LACDPW, Construction Division,~~ limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. The Los Angeles County Department of Health Services has the authority to restrict construction activities to between the hours of 7:00 AM and 7:00 PM and no time on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line. In addition, a haul route will be reviewed and approved by the County that would limit neighborhood disturbance to the degree feasible. To further limit off-site construction noise impacts, a staging area for the storage of equipment and material will be located on Parcel 9U as far as feasible from existing residences. With regard to operations, all point sources of noise occurring on the parcel must adhere to the requirements of Section 12.08.390 of the County Code. Even with these measure in place, it would not be possible to reduce construction noise impacts within the standards set forth in the County Code, particularly during pile driving, in order to limit neighborhood disturbance to the degree feasible. A construction staging area will be identified within each parcel as far as possible from existing residential uses for the storage of equipment and material while still on the project site. With regard to operations, all stationary and point sources of noise occurring on the project site must adhere to the requirements of the County of Los Angeles Ordinance No. 11773, Section 12.08.390.

Mitigation Measures Recommended by the EIR:

The project application shall implement mitigation measures 5.2-1 through 5.2-~~3-5~~ to reduce significant noise and vibration impacts to ~~less than significant levels~~ the extent feasible.

Conclusion:

Construction Impacts: Significant and unavoidable, particularly during pile driving;

Haul Route Noise Impacts: Significant and unavoidable;

Vibration Impacts: Significant and unavoidable;

Operational Impacts; Point and Stationary Sources Source Noise: Less than significant;

Operational Impacts; Mobile Source Noise: Less than significant.

5.2.4.3.5 Wetland Park Project (Parcel 9U)

The applicable thresholds of significance are listed below followed by ~~analysis of the significance of any potential impacts~~ the noise impact analysis for the Wetland Park Project. Mitigation measures are also identified which would reduce or avoid potentially significant adverse impacts, ~~if applicable~~.

5.2.4.3.5.1 Threshold: Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance?

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

Threshold: 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?

Threshold: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Analysis: The significance of noise impacts is based on both the Land Use Compatibility Guidelines for Noise identified in **Figure 5.2-3**, and typical community responses to changes in noise levels. Additionally, if proposed ~~on-site~~ uses are subject to point source noise levels originating on or off the ~~project~~ Wetland Park that are above County Noise Control Ordinance standards for noise-sensitive uses (identified in **Tables 5.2-2 and 5.2-3**), a significant ~~on-site~~ noise impact would occur. Note that the County Noise Control Ordinance does not govern individual motor vehicles. These are governed by the California Vehicle Code.

Construction Impacts: A restored wetland and public upland park are proposed on the southern 1.46 acres of Parcel 9U. Construction-Development of the 1.46-acre wetland park would not be phased. Construction is limited to the grading necessary for construction of the 1.46-acre wetland and upland buffer. Construction-Grading would occur over a three-month period beginning in October 2011 and construction of the project would involve the temporary (approximately three months) would occur over a nine-month period. Park completion would occur by October 2012. Park development would require the use of heavy equipment, such as tractors, (dozers) and loaders. As stated above, the EPA has compiled data regarding the noise-generating characteristics of specific types of construction equipment. Table 5.2-5, Noise Levels of Typical Construction Equipment, shown above, presents noise levels of typical construction equipment, which could be used on site during various phases of construction. As shown, noise levels generated by heavy demonstrates that noise levels from this equipment can range from approximately 68-84 dB(A) to noise levels in excess of 100dB(A) when measured at 50 feet.

However, much of this noise would diminish rapidly with distance from the construction site at a rate of approximately 6 dB(A) per doubling of distance.

Construction activity on ~~the project Wetland Park~~ site would occur as close as 125 feet from existing residential uses located west of the project site along Via Marina and south along Tahiti Way, resulting in noise levels of up to ~~approximately 85-80 dB(A). These, as well as any other locations that experience an uninterrupted line of sight to the construction noise sources, could be temporarily exposed to~~ This exterior noise level ~~s~~ which does not exceed the County's Noise Control Ordinance standards for ~~construction equipment noise levels~~ multi-family residences (identified in see Table 5.2-3). Therefore, ~~construction noise is considered a temporary impacts would be less than significant impact.~~

~~Construction noise would represent a short-term significant impact based on the potential to exceed County noise standards and the near two and a half eleven month one-year construction period.~~

Haul Route Noise Impacts: Wetland Park construction will require the use of heavy trucks to haul equipment and materials to the site, as well as transport construction debris. During the initial 3 months of excavation and grading, as many as 10 truck trips would arrive to and leave the site daily. During the remainder of the park construction, the maximum number of truck trips would be 10 trips per day (Crain & Associates, January 29, 2008).

Off-site sensitive receptors along the truck route that would have a direct line of sight to the trucks would experience temporary, instantaneous noise levels up to 88 dB(A) at 50 feet from the roadway. Receptors located further away would experience less noise due to their greater distance from the roadway and to any intervening topography and/or structures that may exist between them and the noise source. This noise impact would be temporary and instantaneous in nature as the trucks pass by the receptors. Truck traffic noise at the receptors would diminish rapidly as the trucks travel away from them.

To limit noise impacts associated with construction traffic on nearby land uses, truck haul routes have been established which route vehicles away from sensitive uses to the maximum extent feasible. As depicted in Figure 5.2-6, Haul Route, the haul route extends north on Via Marina to Washington Boulevard, then east on Lincoln Boulevard and south on the Marina Freeway.

To minimize potential neighborhood disruption and conflicts along the haul route, a construction traffic control plan will be developed for use during construction. The plan will identify all traffic control measures, signs and time limits to be implemented by the construction contractor for the duration of construction. All vehicles will be staged either within the property or at designated areas as established by a County approved haul route plan.

In short, heavy duty truck traffic associated with this project would be intermittent throughout the workday, restricted to daytime hours, would primarily travel along highways and major arterials where few noise sensitive uses are located, would not traverse residential areas or travel past sensitive receptors for extended periods of time, and would generate noise levels comparable to existing vehicle noise along other major arterials in the area. Neither the County Noise Element nor the County Noise Control Ordinance have standards that apply to individual motor vehicles (these are regulated by the California Vehicle Code). However, as previously discussed, noise sensitive land uses located along the haul route are primarily residential in nature. Based on the information contained in Table 5.2-5, sensitive receptors within 50 feet of the haul route could experience temporary noise events ranging from 83 to 88 dB(A) from trucks, which exceeds County standards outlined above. Therefore, a temporary significant impact would result from trucks traveling to and from the project site along the haul route during the projected buildout of the project. Employment of all standard noise attenuation practices would be implemented as required by the LACDPW.

Construction workers, who would generally arrive to the construction site at the beginning of the workday and leave at the end of the workday, would contribute to increases in peak and pre-peak hour traffic along roadways in the project study area. Construction worker traffic, which would be largely comprised of passenger vehicles and light pick-up trucks, would not represent a substantial percentage of peak hour volumes in the area and would not cause an audible increase in community noise levels. Therefore, noise from construction-worker traffic would be less than significant.

Vibration Impacts: Construction of the 1.46-acre wetland park would involve limited site grading and would not require the use of equipment, such as pile drivers. Vibration from construction equipment would not be perceptible to the nearest residential uses located west of the project site along Via Marina and south along Tahiti Way and impacts would be less than significant that would generate substantial ground vibration. As such, vibration impacts would be less than significant.

Operation Impacts: New on-site uses are expected to be limited to those associated with passive recreation. Operation of the proposed wetland park is expected to result in a minor increase in noise due to the net increase in the human population on the site to both future on-site receptors and existing off-site receptors. Noise experienced at Audible noise at on-site and off-site locations would consist of intermittent sounds associated with human activity, such as people talking, and domestic animals (if permitted within the wetland park), etc. Noise levels generated by these sources typically generate noise levels of between 52 to and 62 dB(A) CNEEL. Such noises are typical of urban areas and are comparable to the types of noise presently experienced at the project site. Operation of the wetland park is not expected to result in significant noise impacts during project operation.

Conclusion:

Construction Impacts: ~~Significant~~ Less than Significant;

Haul Route Noise Impacts: Significant (temporary)

Vibration Impacts: Less than significant;

Operational Impacts: Less than significant.

Mitigation Measures:

Existing Regulations and Standards Applicable to the Project ~~Wetland Park Project: Section 12.08.12.030 of the County Code~~ The LACDPW, Construction Division, limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. The Los Angeles County Department of Health Services has the authority to restrict construction activities to between the hours of 7:00 AM and 7:00 PM, and no time on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line. In addition, a haul route will be reviewed and approved by the County that would limit neighborhood disturbance to the degree feasible. To further limit off-site construction noise impacts, a staging area for the storage of equipment and material will be located on the Wetland Park site as far as feasible from existing residences. With regard to operations, all point sources of noise occurring on the parcel must adhere to the requirements of Section 12.08.390 of the County Code.

Mitigation Measures Recommended by the EIR:

The project application shall implement mitigation measures 5.2-1 through 5.2-3 to reduce significant noise and vibration impacts to the extent feasible and reasonable. ~~in order to limit neighborhood disturbance to the degree feasible. A construction staging area will be identified as possible from existing residential uses for the storage of equipment and material while still remaining on the project site. With regard to operations, all stationary and point sources of noise occurring on the project site must adhere to the requirements of the County of Los Angeles Ordinance No. 11773, Section 12.08.390.~~

Mitigation Measures Recommended by the EIR:

~~The project application shall implement mitigation measures 5.2-1 through 5.2-3 to reduce significant noise impacts to less than significant levels.~~

Conclusion:

Construction Impacts: ~~Significant and unavoidable~~ Less than significant; other than haul trucks.

Haul Route Noise Impacts: Significant (temporary)

Vibration Impacts: Less than significant;

Operational Impacts: Less than significant.

Noise Impacts and Mitigation Measures: Wetland Park Project (Parcel 9U)

5.2.4.3.6 Public-Serving Boat Space Project

The applicable thresholds of significance are listed below followed by ~~analysis of the significance of any potential impacts~~ the noise impact analysis for the Public-Serving Boat Space project. Mitigation measures are also identified which would reduce or avoid potentially significant adverse impacts, ~~if applicable~~.

5.2.4.3.6.1 Threshold: Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance?

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

Threshold: 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?

Threshold: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Analysis: The significance of noise impacts is based on both the Land Use Compatibility Guidelines for Noise identified in **Figure 5.2-3**, and typical community responses to changes in noise levels. Additionally, if ~~the proposed public-serving boat spaces on-site~~ uses are subject to point source noise levels originating on or off the ~~site project site~~ that are above County Noise Control Ordinance standards for commercial uses (identified in **Tables 5.2-2 and 5.2-3**), a significant ~~on-site~~ noise impact would occur. Note that the County Noise Control Ordinance does not govern individual motor vehicles. These are governed by the California Vehicle Code.

Construction Impacts: Construction of the ~~public-serving boat spaces~~ Public-Serving Boat Spaces would not be phased. As no landside demolition is required, construction would be limited to the development of the 7 to 11 public-serving spaces ~~proposed adjacent to Parcel 9U in Marina del Rey Basin B.~~

Construction of the ~~public-serving boat spaces project~~ would involve the temporary use of heavy equipment, such as ~~pile drivers, tractors (dozers), loaders, and concrete mixers~~. Smaller equipment, such as pneumatic tools, saws and hammers, would also likely be used ~~throughout the site~~ during construction of the boat spaces.

As stated above, the EPA has compiled data regarding the noise-generating characteristics of specific types of construction equipment. **Table 5.2-5, Noise Levels of Typical Construction Equipment**, shown above, presents noise levels of typical construction equipment, which could be used on site during various phases of construction. As shown, noise levels generated by heavy equipment can range from

approximately 76 dB(A) to noise levels in excess of 100 dB(A) when measured at 50 feet. However, much of this noise would diminish rapidly with distance from the construction site at a rate of approximately 6 dB(A) per doubling of distance.

Based on a review of the site plan, construction activity (in the marina) would occur as close as 125 feet from existing residential uses located south of the project site along Tahiti Way. ~~These, as well as any other locations with an uninterrupted line of sight to the construction, could be temporarily exposed to exterior noise levels which could exceed the County's Noise Control Ordinance standards for construction equipment noise levels identified in Table 5.2-3. Therefore, construction noise is considered a temporary significant impact. These, as well as any other locations that experience an uninterrupted line of sight to the construction noise sources, could be temporarily exposed to exterior noise levels which could exceed the County's Noise Control Ordinance standards for construction equipment noise levels identified in Table 5.2-3. As this component would use similar equipment to the other components, construction noise levels at off-site sensitive receptors are anticipated to be similar to those generated by construction of the other components. Therefore, construction noise is considered a temporary significant impact.~~

~~Construction noise would represent a short-term significant impact based on the potential to exceed County noise standards and the near two and a half eleven month one-year construction period.~~

Vibration Impacts: The primary vibration source associated with development of the ~~Public-public-serving Boat boat Spacesspaces~~ would be involves the use of pile drivers ~~during used~~ in the construction in the marina. ~~Pile drivers are the pieces of construction equipment most likely to exceed Section 12.08.560 of the County Code and cause potential off-site vibration impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone.~~

~~Pile driving could result in a maximum vibration level of 1.518 inches/second PPV at 25 feet. This level of vibration is above the perception threshold identified in Section 12.08.560 of the County Code, and is within the range for architectural damage risk, which is between 0.2 and 2.0 inches/second. Therefore, temporary groundborne vibration during pile driving would exceed the threshold of perception and would have the potential to cause damage to nearby structures. Pile driving vibration impacts would be significant. A certified structural engineer shall be retained to submit evidence that pile driving activities would not result in any structural damage to nearby structures.~~

Pile drivers are the pieces of construction equipment most likely to cause potential off-site impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone. Because the use of pile driving equipment is required for foundation construction, vibration impacts that would occur are considered significant and unavoidable, but temporary in type. **Operation Impacts:** New on-site uses are expected to be limited to those associated with passive recreation. Operation of the proposed ~~Public~~ public-serving Boat boat Spaces spaces is expected to result in a minor increase in noise due to the net increase in the human population on the site to both future on-site receptors and existing off-site receptors. ~~Because these public-serving boat slips are intended for transient use, noise sources would come from water-side activities. Noise experienced at All sensitive receptors are located a minimum of 125 feet from the Ppublic-serving boat spaces. Audible noise on-site and off-site locations would consist of intermittent sounds associated with human activity, such as people talking, domestic animals, and the sound of boat engines. While noise levels generated by human activity generally range Noise levels generated by these sources typically generate noise levels of between 52 to and 62-62 dB(A)-CNEE and are not expected to not have a significant impact on nearby receptors, outboard motors will be substantially louder. Neither the County Noise Element nor the County Noise Control Ordinance have standards that apply to point source motor vehicles (these are regulated by the California Vehicle Code); however, no threshold of significance applies to boat engine noise and a statement of impact significance cannot be made~~ operational impacts from the public-serving boat spaces are less than significant. Such noises are typical of urban areas and are comparable to the types of noise presently experienced at the site. All sensitive receptors are located a minimum of 125 feet from the project site and it is expected that most of the noise generated on site will have attenuated and would, therefore, not have an impact on these receptors. Operation of the Public Boat Spaces are is not expected to result in significant noise impacts during project operation.

Conclusion:

Construction Impacts: ~~Significant~~ Significant during pile driving;

Vibration Impacts: ~~Significant during pile driving~~ Less than significant;

Operational Impacts: Less than significant.

Mitigation Measures:

Existing Regulations and Standards Applicable to the Project ~~Public Serving Boat Space Project:~~
 Section 12.12.030 of the County Code ~~The LACDPW, Construction Division,~~ limits construction activities to between the hours of 6:30 AM and 8:00 PM daily and prohibits work on Sundays and legal holidays. The Los Angeles County Department of Health Services has the authority to restrict construction activities to between the hours of 7:00 AM and 7:00 PM, and no time on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line. In addition, a haul route will be reviewed and approved by the County ~~that would limit neighborhood disturbance to the degree feasible. To further limit off-site construction noise impacts, a staging area for the storage of equipment and material will be located on the parcel as far as feasible from existing residences. With regard to operations, all point sources of noise occurring on the parcel must adhere to the requirements of Section 12.08.390 of the County Code. Even with these measure in place, it would not be possible to reduce construction noise impacts within the standards set forth in the County Code, particularly during pile driving,~~ in order to limit neighborhood disturbance to the degree feasible. A construction staging area will be identified as possible from existing residential uses for the storage of equipment and material while still remaining on the project site. With regard to operations, all stationary and point sources of noise occurring on the project site must adhere to the requirements of the County of Los Angeles Ordinance No. 11773, Section 12.08.390.

Mitigation Measures Recommended by the EIR:

The project application shall implement **Mitigation Measures 5.2-1** through **5.2-3-5** to reduce significant noise and vibration impacts ~~the extent feasible~~ to less than significant levels.

Conclusion:

Construction Impacts: Significant and unavoidable during pile driving;

Vibration Impacts: Significant and unavoidable during pile driving ~~Less than significant;~~

Operational Impacts: Less than significant.

5.2.5 CUMULATIVE IMPACTS

5.2.5.1 Cumulative Noise Construction Impacts

~~In the event that project The proposed project along construction occurs concurrently with construction of associated cumulative other projects within the immediate area, a significant cumulative construction noise impact could occur at existing off-site noise-sensitive receptors and at on-site receptors constructed and occupied during earlier phases of development. will increase noise, due to construction activities, for surrounding sensitive receptors such as the existing residential units on the western side of Via Marina if the proposed project and associated cumulative project located in the same vicinity begin development (demolition, grading and construction) during the same time period. Increased cumulative noise levels would occur from the proposed project and from tTwo adjacent cumulative projects include tThe Venice Pumping Plant Dual Force Main Project²² (approximately 12 months of construction); and The Shores Project²³ (up to 28 months of construction). The primary increase in cumulative noise levels will be individual on-site use of construction equipment such as bulldozers, tractors, trucks, pavers, excavators, generators, electric saws, and other equipment associated with demolition, paving and construction of the proposed project and nearby cumulative projects. Construction of The Shores Project would require the use of pile drivers.~~

~~One alignment of the Venice Pumping Plant Dual Force Main Project will would result in the construction of a portion of the force main sewer beneath Marquesas Way and Via Marina, and along the project site's adjacent to the proposed project, along its northern and western boundaries, respectively. The Venice Pumping Plant Dual Force Main Project was analyzed for vibration impacts using two types of construction methods: Open Trench Method and Micro-Tunneling Method.²⁴ Construction of the proposed 3,200-foot long Marquesas Way/Via Marina Alignment will would result in temporary increases in noise levels in the vicinity of construction sites for a period of up to 3 weeks around each active open~~

²² ~~The Venice Pumping Plant Dual Force Main Project is a project proposed by the City of Los Angeles to construct a new 54-inch diameter force main sewer extending from the Venice Pumping Plant to a junction structure at the North Outfall Sewer under Vista Del Mar, approximately 240 feet south of Waterview Street in Playa Del Rey. A portion of the force main sewer will be located beneath Marquesas Way and Via Marina, adjacent to the proposed project, along its northern and western boundary, respectively.~~

²³ ~~The Shores Project, is situated in the western portion of the Marina del Rey small craft harbor, at the northwest corner of the intersection of Via Marina and Marquesas Way (approximately 100 feet to the west of the proposed project site). The Shores Project will provide 544 residential units and 1,114 parking spaces; as there are 202 existing apartments on the site, completion of The Shores Project will result in a net increase of 342 apartment units and 809 parking spaces.~~

²⁴ ~~URS, Venice Pumping Plant Dual Force Main Project Draft Environmental Impact Report, City of Los Angeles, Bureau of Engineering, Department of Public Works, December 20, 2005. 5-120 - 5-121.~~

trench zone, and up to 2 months around tunneling, jacking and extraction shaft operations.²⁵ According to the analysis of the Venice Pumping Plant Dual Force Main Project, the Marquesas Way/Via Marina construction portion would result in open-trench construction activities that would take place within approximately 25 feet of adjacent residences. The southwest corner of Marquesas Way and Via Marina is proposed as a shaft site. This would result in residences that are directly adjacent to this construction activity to experience noise levels of approximately 93 to 96 dB(A), which would exceed the County of Los Angeles noise standards for multi-family residential exposure to construction activities noise and result in a significant cumulative noise impact.²⁶ However, the Venice Pumping Plant Dual Force Main Project analysis included mitigation measures that would help reduce this noise impact,²⁷ such as adding noise-reducing features to construction equipment.

The Shores Project, located adjacent to the western boundary of the proposed project site, could also contribute to cumulative construction noise levels in the area due to construction activities. Construction of The Shores Project will involve the temporary use of heavy equipment, such as pile drivers, tractors (dozers), excavators, loaders, concrete mixers, and cranes. Smaller equipment, such as jackhammers, pneumatic tools, saws and hammers will also likely be used throughout the site during demolition and construction stages. Based on analysis, construction activity for The Shores Project would occur as close as 50 feet from existing noise-sensitive residential uses multi-family residences located to the east of The Shores Project site, and noise levels at these locations could experience noise levels that residences could reach 94-100 dB(A) during pile driving, which. Although this would exceed the County of Los Angeles noise standards for construction these uses and result in a significant cumulative noise impact. The impact analysis for The Shore Project includes the temporary nature of the construction activity, and mitigation measures that is proposed for The Shores Project will minimize these impacts.

As described above the proposed project will include the temporary use of heavy equipment, such as pile drivers, tractors (dozers), excavators, loaders, concrete mixers, and cranes. Smaller equipment, such as jackhammers, pneumatic tools, saws and hammers, would also most likely be used throughout the site during demolition and construction stages. Temporary construction activity on the proposed project site would occur as close as 50 feet from existing noise sensitive residential uses residences located to the west and east of the project site. Noise levels at these residences could, and these receptors could experience noise levels that reach 94 dB (A) which would exceed County of Los Angeles noise standards for these uses for short periods of time and result in a significant project and cumulative noise impact.

²⁵ Ibid. 5-120

²⁶ Ibid. 5-120.

²⁷ Ibid. 5-128.

Construction activity on the project site would also occur as close as 125 feet from existing residential residences located to the west of the project site along Via Marina, resulting in temporary construction noise levels of up to 85 dB-(A). Additionally, the proposed project will include the installation of a sewer line within Marquesas Way which will also result in increased construction noise for adjacent sensitive receptors. To mitigate construction noise impacts, the proposed project is required to comply with the County of Los Angeles' Noise Control Ordinance. This EIR section also includes ~~has included Mitigation Measures 5.2-1 through 5.2-3 along with compliance with the County of Los Angeles Noise Ordinance for construction activities to reduce the impact of construction noise on adjacent sensitive receptors to the extent feasible. Although the proposed project has included these measures~~ Despite implementation of these measures, the combined cumulative construction noise impacts associated with construction of this project, the Venice Pumping Plant Dual Force Main Project, and The Shores Project would result in ~~and other two above discussed projects within the vicinity, will result in a significant and unavoidable cumulative construction noise impact to sensitive receptors located within the vicinity of the proposed project and associated cumulative projects. Therefore, the proposed project would cumulatively contribute to this increase in construction noise associated with its development. Although the cumulative construction noise impacts are~~ would be significant and unavoidable, the cumulative noise impact will occur on a temporary basis, only during construction, and will not occur over the lifetime of the proposed or cumulative projects within the vicinity they would be intermittent and temporary.

5.2.5.2 Cumulative Noise from Construction Haul Routes

In the event that project construction occurs concurrently with construction of other projects within the area, a cumulative mobile source noise impact could occur at noise-sensitive receptors along roadway segments utilized as haul routes for construction trucks. Heavy trucks would be used to haul excavation materials, demolition wastes, construction wastes, and building materials. Heavy trucks would also be used to deliver construction equipment to each site once and then to pick it up once it is no longer needed. The proposed project along with cumulative projects within its vicinity will cumulatively increase noise levels perceivable by sensitive receptors, due to the cumulative effect of truck hauling and delivery truck traffic associated with the construction of the proposed project and cumulative projects. During construction activities, ~~proposed~~ each projects would establish a construction truck haul route plan in order to minimize associated increases in noise levels due to trucks entering and leaving construction sites, and travelling along and ~~past sensitive receptors~~ past sensitive receptors, such as ~~residential buildings~~ residences. Construction truck traffic from the proposed project, the Venice Pumping Plant Dual Force Main Project, and The Shores Project would ~~along with known cumulative projects within close proximity to each other, will increase the noise experienced by local residential~~

~~units noise levels at residences located along Via Marina and Marquesas Way during construction operations.~~

~~The Venice Pumping Plant Dual Force Main Project, would include construction activities along Via Marina and Marquesas Way, that will involve the use of construction vehicles using these streets to haul in and out construction equipment and waste during its construction period. The incremental increase in traffic volumes associated with the Open Trench Construction of the Venice Pumping Plant Dual Force Main Project would require an estimated 15 round-trip truckloads per day for excess material and supplies, was analyzed for the potential to increase off-site construction noise levels.²⁸ Analysis concluded that the estimated 15 round-trip truckloads per day for excess material and supplies would not constitute a noise impact, given the relatively high traffic volumes along the designated truck routes that the construction trucks would use for the Venice Pumping Plant Dual Force Main Project.²⁹ Similarly, The Venice Pumping Plant Dual Force Main Project, uUnder the Micro-Tunneling Method, u was an estimated to have eight round-trip truckloads per day for excess material and supplies during its construction period would be required during construction. Analysis concluded that this amount of trucks along the designated truck route would not increase noise levels to a significant impact, given the relatively high traffic volumes already occurring on Via Marina and Marquesas Way. Sensitive receptors within 50 feet of the haul route could experience temporary noise events up to 88 dB (A).~~

~~The haul route for the Shores Project will use a haul route that will would include the use of Via Marina, Washington Boulevard, Lincoln Avenue and the 90 "Marina" Freeway to access the Puente Hills Landfill for disposal, to dispose of construction related debris/waste and excess cut material. Analysis of the haul route for The Shores Project concluded that noise impacts from construction traffic During demolition, up to 100 round trips per average working day would be greatest during the demolition phase of its development, when trucks are expected to make up to 100 (round) trips on average per working day to haul debris from the site. An additional 64 truck trips per day would be necessary for the export of 25,940 cubic yards of earth material coming from the Shores Project site. Sensitive receptors within 50 feet of the haul route could experience temporary noise events ranging from 83 up to 88 dB (A), which will exceed the County of Los Angeles Noise construction standards. However, the export of 25,940 cubic yards of earth material would not exceed 83 to 88 dB (A) for sensitive uses along the haul route.~~

~~The proposed project has designated a haul route similar to that of the Shores Apartment Project and overlapping on Via Marina with the route proposed for the Venice Pumping Plant Dual Force Main~~

²⁸ URS, Venice Pumping Plant Dual Force Main Project Draft Environmental Impact Report, City of Los Angeles, Bureau of Engineering, Department of Public Works, December 20, 2005. 5-121.

²⁹ ~~Ibid. 5-121~~

Project - The proposed project would use Via Marina, Washington Boulevard and Lincoln Boulevard to haul export material from the proposed project site to the Puente Hills Landfill. - As mentioned above, a construction traffic control plan will be developed for use during the construction phases of the proposed project to minimize potential neighborhood disruption and conflicts along the haul route. During the initial two months of demolition and excavation on Parcels 10R and 9U, as many as 284 truck trips would arrive to and leave the site daily. During the remainder of the project construction, the number of truck trips would range from 70 to 194 trips per day (Crain & Associates, January 29, 2008).

Off-site sensitive receptors along the truck routes that would have a direct line of sight to the trucks would experience temporary, instantaneous noise levels up to 88 dB(A) at 50 feet from the roadway. Receptors located further away would experience less noise due to their greater distance from the roadway and to any intervening topography and/or structures that may exist between them and the noise source. This noise impact would be temporary (during construction only) and instantaneous in nature as the trucks pass by sensitive receptors. Truck traffic noise at the receptor locations would diminish rapidly as the trucks travel away from them.

Neither the County Noise Element nor the County Noise Control Ordinance governs individual motor vehicles. These are governed by the California Vehicle Code. However, as previously discussed, noise sensitive land uses located along the haul route are primarily residential in nature. Sensitive receptors within 50 feet of the haul route could experience temporary noise events ranging from 83 to 88 dB(A) from trucks, which exceeds County standards outlined above. Therefore, a temporary significant cumulative impact would result from trucks traveling to and from the cumulative project sites along the haul route during the projected buildout of the projects, and the project's contribution would be considerable.

Measures proposed to reduce noise impacts would include limitations on the hours and days during which construction activity may occur. Trucks entering and exiting the site would make approximately 42 rounds a maximum of 584 PCE trips per day, traveling up to 30 miles each trip during demolition. During site grading, trucks entering and exiting the site would travel approximately 20 up to 30 miles round each trip, and would make a maximum of 218 584 PCE approximately 131 round trips per day. The sensitive residential uses along Via Marina and Marquesas Way, within 30 feet of the haul route could experience temporary noise events ranging from 83 to 88 dB (A) from trucks, which exceeds the Los Angeles County Noise construction standards.

Therefore, the proposed project would cumulatively contribute to the noise experienced by sensitive use areas around the proposed project site and the projects in the immediate area if construction were to occur during the same time frame. Additionally, the noise impacts associated with the proposed project

~~and cumulative projects within the proposed project area will represent a cumulative increase to noise experienced by the residential units along Via Marina and Marquesas Way. Assuming construction occurs within the same timeframe, construction trucks traveling on Via Marina, Marquesas Way and Washington Blvd. would expose sensitive receptors in the vicinity of those roadways to increased noise levels as a result of the increase in construction truck traffic that will be utilizing Via Marina and Marquesas way to export construction debris and excess cut material from off these project sites, and to the Puente Hills Landfill. Therefore, impacts would be considered cumulatively significant and unavoidable. However, this cumulative significant and unavoidable impact will be short-term and would occur only during the short-term construction and demolition phases of these projects, and will not occur cumulatively over the lifetime, after buildout of the proposed project and associated cumulative projects in the area.~~

5.2.5.3 Cumulative Vibration Impacts

~~Vibration consists of waves transmitted through solid material. The solid medium can be excited by forces, movements, or pressure fields. Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may comprise a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in hertz (Hz). Most environmental vibrations consist of a composite, or "spectrum" of many frequencies, and generally are classified as broadband or random vibrations. The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration often is measured in terms of the peak particle velocity (PPV) in inches per second (in/sec).~~

~~Ground-borne vibration can be perceived without instrumentation within a few hundred feet of certain types of construction activities, especially pile driving. Road vehicles rarely create enough ground-borne vibration to be perceptible to humans unless the road surface is poorly maintained and there are potholes or bumps. If traffic, typically heavy trucks, induces perceptible vibration in buildings, such as window rattling or shaking of small loose items, then it is most likely an effect of low-frequency airborne noise or ground characteristics.~~

~~Human annoyance by vibration is related to the number and duration of events. The more events or the greater the duration, the more annoying it will be to humans. Human annoyance by vibration is related to the number and duration of events. The more events or the greater the duration, the more annoying it will be to humans. The associated vibrations due to the development of cumulative projects during the same time frame as the development of the proposed project could also increase the likelihood that~~

~~sensitive receptors surrounding the proposed project site, and sensitive receptors in the vicinity of the cumulative projects, could experience an increase in vibrations due to construction activities.~~

~~The timing of the development of the proposed project could coincide with that of two additional projects within the area. The Venice Pumping Plant Dual Force Main Project³⁰ is a project proposed by the City of Los Angeles, that will include the construction and installation of a new 54-inch diameter force main sewer extending from the Venice Pumping Plant (VPP) to a junction structure at the North Outfall Sewer under Vista Del Mar, approximately 240 feet south of Waterview Street in Playa Del Rey.³¹ A portion of the force main sewer will be located beneath Marquesas Way and Via Marina, adjacent to the proposed project, along its northern and western boundary, respectively. The Venice Pumping Plant Dual Force Main Project was analyzed for vibration impacts using two types of construction methods: Open Trench Method and Micro-Tunneling Method.³² Under the Open Trench Method, the of development this pipeline alignment along the Marquesas Way/Via Marina Alignment portion of the Venice Pumping Plant Dual Force Main Project would result in open-trench construction activities taking place would be within approximately 25 feet of adjacent residences.³³ The analysis concluded that this type of construction would result in the residents adjacent to the development of the pipeline to experience vibration that resulting in construction vibrations that would exceed the Los Angeles County vibration standard of 0.01 inches per second at a distance of 150 feet as specified in Section 12.08.560 of the County Code, which would be a significant impact.³⁴ However, mitigation measures were included in the Venice Pumping Plant Dual Force Main Project that this project would reduce these impacts to these sensitive receptors to a less than significant level.³⁵ Under the Micro-Tunneling Method of construction for the Venice Pumping Plant Dual Force Main Project, construction activities (including vibration producing activities) would occur within 50 feet (at the receiving pit located at the southern end of Via Marina) to 100 feet (at the receiving pit located near the VPP at Hurricane Street) of adjacent residences.³⁶ The analysis under the Venice Pumping Plant Dual Force Main Project concluded that Residences located 50 feet from active micro-tunneling work areas would experience vibration levels no~~

³⁰ URS, Venice Pumping Plant Dual Force Main Project Draft Environmental Impact Report, City of Los Angeles, Bureau of Engineering, Department of Public Works, December 20, 2005.

³¹ *Ibid.* 2-5.

³² *Ibid.* 5-126.

³³ *Ibid.* 5-126.

³⁴ *Ibid.* 5-126.

³⁵ *Ibid.* 5-126 and 5-129.

³⁶ *Ibid.* 5-126.

greater than the vibration standards set forth in Section 12.08.560 of the County Code and less than significant the Los Angeles County Code standards for vibration.^{37, 38}

~~The second cumulative project of concern, The Shores Project, is situated in the western portion of the Marina del Rey small craft harbor, at the northwest corner of the intersection of Via Marina and Marquesas Way (approximately 100 feet to the west of the proposed project site). The Shores Project will provide 544 residential units and 1,114 parking spaces; as there are 202 existing apartments on the site, completion of The Shores Project will result in a net increase of 342 apartment units and 809 parking spaces. The primary potentially significant source of vibration source associated with development of the Shores Project will would include the use of the pile drivers used during foundation construction. Lesser vibration impacts could result from the use of other heavy equipment on the parcel and the haul trucks along the haul route. Pile drivers used on the parcel and haul trucks are the pieces of construction equipment most likely to exceed Section 12.08.560 of the County Code and cause potential off-site vibration impacts. Pile drivers create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone.~~

~~As shown in Table 5.2-6, **Vibration Source Levels for Construction Equipment**, pile driving can result in a maximum vibration level of 1.518 inches/second PPV at 25 feet. This level of vibration is above the perception threshold identified in Section 12.08.560 of the County Code, and is within the range for architectural damage risk, which is between 0.2 and 2.0 inches/second. Therefore, temporary groundborne vibration during pile driving for The Shores Project would exceed the threshold of perception and would have the potential to cause damage to nearby structures. Pile driving vibration impacts for The Shores Project would be significant. In addition, a loaded heavy-duty haul truck can generate a level of vibration 0.076 inches/second PPV at 25 feet, and, therefore, truck traffic vibrations would exceed the threshold of significance.~~

~~Pile drivers will be the only on-site machine used for construction of The Shores Project that could cause potential significant off-site vibration impacts [Similar to the proposed project, The Shores Project, will utilize pile drivers that create a high intensity, repetitious noise that is disturbing and can result in substantial ground vibrations. Since The Shores Project will use pile drivers during its construction phase, vibration impacts to surrounding residential units would exceed the Los Angeles County Code~~

³⁷ ~~Ibid. 5-126~~URS, Venice Pumping Plant Dual Force Main Project Draft Environmental Impact Report, City of Los Angeles, Bureau of Engineering, Department of Public Works, December 20, 2005, 5-126.

³⁸ URS, Venice Pumping Plant Dual Force Main Project Draft Environmental Impact Report, City of Los Angeles, Bureau of Engineering, Department of Public Works, December 20, 2005, 5-126.

~~vibration standards; however, these vibration impacts due to the construction activity taking place on The Shores Project will also be temporary in nature.~~

~~As discussed above, the primary source of vibration associated with development of the proposed project involves the potential use of would be from pile drivers used during foundation construction; less severeminor vibration impacts could also result from the use of other heavy equipment on-and off-site due to haul trucks passing on streets adjacent to sensitive receptors. Pile driving could result in a maximum vibration level of 1.518 inches/second PPV at 25 feet. This level of vibration is above the perception threshold identified in Section 12.08.560 of the County Code, and is within the range for architectural damage risk, which is between 0.2 and 2.0 inches/second. Therefore, temporary ground-borne vibration during pile driving would exceed the threshold of perception and would have the potential to cause damage to nearby structures. Pile driving vibration impacts would be significant.~~

~~As stated previously, Section 12.08.560 of the County Code applies to any device, including motor vehicles. Therefore, there is no threshold of significance for truck traffic vibrations and a statement of impact significance cannot be madewould cause a significant impact. The pile drivers that would be utilized for development of the proposed project create high intensity, repetitious noise that is disturbing and can result in ground vibration. Usually, peak ground vibrations occur during the initial blows of the hammer and pile through the compacted soil zone. Once the compacted soil layer at the surface is penetrated, the pile typically slides more easily through the ground water saturated zone. Because of the location of the proposed project site is adjacent to residencies (located approximately 50 to 100 feet from the northern, and western borders of the proposed project) the likelihood that these residencies will experience periodic increases in vibration levels exceeding the Los Angeles County Code standards will increase. However, these vibration increases experienced by the sensitive receptors adjacent to the proposed project site, will be temporary in nature, and will not occur on a continuous basis.~~

~~A loaded heavy-duty haul truck can generate a level of vibration 0.076 inches/second PPV at 25 feet. The perception of truck traffic vibration would depend upon several factors, including road condition, vehicle speed, vehicle weight, vehicle suspension system, soil type and stratification, and distance between the truck and the receptor. Perceptible truck vibration would be intermittent and instantaneous as it would have a rapid onset and a rapid decay as the truck moves toward and away from the receptor. Section 12.08.560 of the County Code applies to any device, including motor vehicles, and, therefore, truck traffic vibrations exceed the threshold of significance and a significant impact can be concluded.~~

~~If pile driving or hauling operations for the Venice Pumping Plant Dual Force Main Project or The Shores project occur at the same time that such operations occur for the proposed project, temporary cumulative vibration impacts would occur and the proposed project's contribution would be considerable.~~

~~Although these vibration levels will occur during a temporary time period, the combined cumulative impacts associated with the above discussed cumulative projects and the proposed project, if development for all three of them would occur during the same time frame, will result in a significant and unavoidable cumulative impact in regards to vibration, on a temporary basis as construction activities are occurring.~~

5.2.5.4 Cumulative Operational Noise Impacts

~~Cumulative noise impacts would occur as a result of construction activity taking place within Marina del Rey, as well as increased vehicle traffic generated by cumulative development. All construction activities would be subject to the requirements of the "County of Los Angeles Construction Equipment Noise Standards," County of Los Angeles Noise Control Ordinance (County Code Section 12.08.440) as identified earlier in Table 5.2-3. Compliance with the ordinance along with incorporation of mitigation recommended as part of each project's environmental review would reduce the project's contribution to any cumulative construction related noise impacts.~~

Cumulative operational noise impacts would primarily occur as a result of increased traffic on local roadways due to ambient growth, the proposed project, and other developments in the area as identified in Section 5.7, Traffic/Access, of this EIR. To evaluate potential cumulative traffic noise impacts, noise prediction modeling was conducted for selected roadway segments adjacent to noise-sensitive land uses that could be affected by project traffic. Roadway segments include Washington Boulevard east of Via Marina, Via Marina south of Admiralty Way, Admiralty Way east of Via Marina, Lincoln Boulevard north of Fiji Way, Fiji Way west of Lincoln Boulevard, Mindanao Way east of Lincoln Boulevard, Panay Way east of Via Marina, Tahiti Way east of Via Marina, Marquesas Way east of Via Marina and Palawan Way east of Via Marina. Roadway geometrics and traffic volumes segments were obtained from Crain and Associates, the preparers of the traffic study for the proposed project. The noise levels that would be generated by these traffic volumes adjacent to noise sensitive land uses within the project study area are identified in **Table 5.2-1011, Predicted Cumulative Roadway Noise Levels at Noise Sensitive Locations.**

As shown, community noise level increases attributable to traffic generated by cumulative development would be less than 3 dB(A) C_{NEL} at all locations. ~~The intersection with the greatest increase in noise, Marquesas Way, would increase from 53.8 dB(A) to 56.7 dB(A), an increase of 2.9 dB(A). This increase is below the 3dB(A) threshold of detection.~~ Therefore, significant cumulative operational noise impacts would not occur.

5.2.6 UNAVOIDABLE SIGNIFICANT IMPACTS

The Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project would not have a project specific or cumulative ~~operational noise~~ impact on- or off-site ~~with respect to operational noise~~, but will have a short-term noise and vibration impact during construction. Cumulative construction noise and vibration impacts would also be significant.

Construction activity associated with the proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project may expose nearby sensitive receptors to periodic noise levels in excess of the County's Noise Control Ordinance standards for construction equipment, as well as significant vibration impacts. While mitigation measures have been provided to reduce this impact to the maximum degree feasible, this impact would remain unavoidably significant. This impact is expected to be ~~periodic in nature~~, intermittent and confined to normal working hours during the 30 months of project buildout for the 30-month duration of project construction.

Table 5.2-11
Predicted Cumulative Roadway Noise Levels at Noise Sensitive Locations

Roadway Segment	Sensitive Land Uses Distance from Roadway Centerline	Existing dB(A) CNEL	Cumulative Without dB(A) CNEL	Cumulative With Project dB(A) CNEL	Cumulative Increase in dB(A) Over Existing Conditions	Significant Impact?	Project Contribution dB(A)
<u>Washington Blvd.</u> <u>(east of Via Marina)</u>	Residential, 50 feet	67.9*	68.6*	68.7*	0.8	NO	0.1
<u>Via Marina</u> <u>(south of Admiralty)</u>	Residential, 50 feet	67.4*	68.4*	68.8*	1.4	NO	0.4
<u>Admiralty Way</u> <u>(east of Via Marina)</u>	Admiralty Park, 50 feet	69.2	69.9	70.1*	0.9	NO	0.2
<u>Lincoln Boulevard</u> <u>(north of Fiji Way)</u>	Daniel Freeman Hospital, 50 feet	72.5*	73.3*	73.3*	0.8	NO	0.0
<u>Fiji Way</u> <u>(west of Lincoln)</u>	Residential, 50 feet	66.3*	67.0*	67.0*	0.7	NO	0.0
<u>Mindanao Way</u> <u>(east of Lincoln)</u>	Residential, 50 feet	66.2*	67.0*	67.2*	1.0	NO	0.2
<u>Marquesas Way</u> <u>(east of via marina)</u>	Residential, 50 feet	56.0	57.7	58.6	2.6	NO	0.9
<u>Panay Way</u> <u>(east of Via Marina)</u>	Residential, 50 feet	59.4	60.4	60.4	1.0	NO	0.0
<u>Palawan Way</u> <u>(south of Washington)</u>	Recreation	61.6	62.8	62.9	1.3	NO	0.1
<u>Tahiti Way</u> <u>(east of Via Marina)</u>	Residential, 50 feet	56.5	56.7	56.7	0.2	NO	0.0

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.
* Roadway segments which exceed normally acceptable levels under the Land Use Compatibility Guidelines for Noise.

**Table 5.2-10
Predicted Cumulative Roadway Noise Levels at Noise Sensitive Locations
Measured at 50 Feet from Center of Roadway**

Roadway Segment	Sensitive Land Uses Adjacent to Roadway and Distance from Roadway Centerline	Existing dB(A) CNEL	Future (2011)	Change in dB(A) CNEL
			with Project plus Related Projects dB(A) CNEL	
Washington Blvd. (east of Via Marina)	Residential, 50 feet	67.9	68.6	0.7
Via Marina (south of Admiralty)	Residential, 50 feet	67.4	68.8	1.4
Admiralty Way (east of Via Marina)	Admiralty Park, 50 feet	69.2	70.0	0.8
Lincoln Boulevard (north of Fiji Way)	Daniel Freeman Hospital, 50 feet	71.7	72.6	0.9
Fiji Way (west of Lincoln)	Residential, 50 feet	66.3	67.0	0.7
Mindanao Way (east of Lincoln)	Residential, 50 feet	65.0	66.5	1.5
Marquesas Way (east of via marina)	Residential, 50 feet	53.8	56.7	2.9
Panay Way (east of Via Marina)	Residential 50 feet	56.4	57.1	0.7
Palawan Way (south of Washington)	Recreation	61.6	62.8	1.2
Fahiti Way (east of Via Marina)	Residential, 50 feet	54.6	54.7	0.1

Source: Impact Sciences, Inc. Calculations are provided in Appendix 5.2. Noise levels are calculated for the nearest edge of the nearest existing building to the roadway.

SUMMARY

Implementation of the proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project (Parcels 10R, FF and Parcel 9U) would result in the development of four, four-story apartment buildings totaling 526 units, 288 hotel/vacation suites within a 19-story hotel structure, the construction of 174 boat spaces and end-tie spaces adjacent to Parcel 10R, between 7 and 11 public/transient boat spaces adjacent to Parcel 9U and a 2,023-foot public Waterfront Stroll Promenade. A total of 1,510 parking spaces would be provided throughout the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project. These would include 1,150 spaces in two-level structured parking garages below the apartment buildings and 360 spaces in a six-level structured parking garage with one level below the hotel structure. The Neptune Marina/Woodfin Suite Hotel and Timeshare Resort Project also incorporates a restored wetland and upland buffer area on a portion of Parcel 9U. The Neptune Marina Project (Parcel 10R only) would require the removal of 136 existing residential units and 198 boat spaces. The Parcel 10R development would include construction of a new 10-inch sewer line for approximately 500 linear feet within Marquesas Way and 160 linear feet within Via Marina, and construction of an additional 180 linear feet of new 10-inch line and approximately 710 linear feet of a new 8-inch sewer line within existing site boundaries of Parcel 10R. Parcel 10R would also include the installation of approximately 500 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances. Parcel FF would include the installation of approximately 170 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances. Installation of approximately 570 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances may occur during the construction of the Woodfin Suite Hotel and Timeshare Resort. Although this is not required for the Parcel 9U (North) project, the air quality analysis is included here in the event that installation occurs during construction on Parcel 9U. Recommended South Coast Air Quality Management District (SCAQMD) thresholds for construction emissions would be exceeded for oxides of nitrogen (NO_x) during construction of the project. In addition, localized ambient air quality impacts would occur during project construction for particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), and nitrogen dioxide (NO₂). Recommended thresholds for operational emissions would not be exceeded.

5.4.1 ENVIRONMENTAL SETTING

5.4.1.1 Regional Climate

Air quality is affected by both the rate and location of pollutant emissions. It is also heavily influenced by meteorological conditions that affect the movement and dispersal of pollutants. Atmospheric conditions

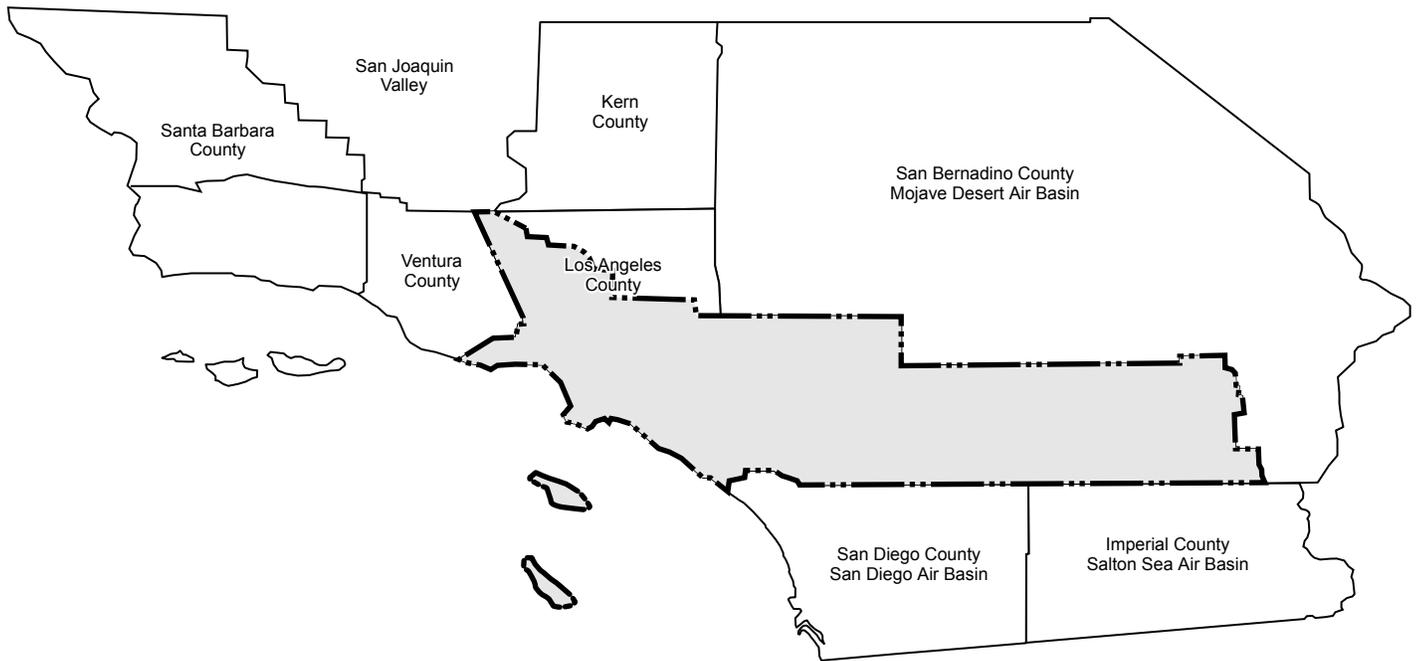
such as wind speed, wind direction, and air temperature gradients, along with local topography, strongly affect the relationship between pollutant emissions and air quality. Atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and topography. The combination of low wind speeds and low inversions produce the greatest concentration of air pollutants. Smog potential is greatly reduced on days without inversions or on days with winds averaging over 15 miles per hour (mph).¹

The proposed project lies within the South Coast Air Basin (the basin). The basin, shown in **Figure 5.4-1, South Coast Air Basin**, consists of all or portions of four counties, including all of Orange County, most of Los Angeles County, and the western, non-desert portions of San Bernardino and Riverside Counties. The regional climate significantly influences the air quality in the basin. Temperature, wind, humidity, precipitation, and even the amount of sunshine influence the quality of the air. In addition, the basin is frequently subjected to an inversion layer that traps air pollutants. Annual average temperatures throughout the basin vary from the low to middle 60s Fahrenheit (°F). However, due to decreased marine influence, the eastern portion of the basin shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the basin, and annual average minimum temperatures are 56°F in downtown Los Angeles, 49°F in San Bernardino, and 55°F in Long Beach. July and August are the warmest months in the basin, and annual average maximum temperatures are 83°F in downtown Los Angeles, 95°F in San Bernardino, and 85°F in Long Beach. All portions of the basin have recorded maximum temperatures above 100°F.

Although climate of the basin can be characterized as semi arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of Basin climate. Humidity restricts visibility in the basin, and the conversion of sulfur dioxide (SO₂) to sulfates is heightened in air with high relative humidity. The marine layer is an excellent environment for that conversion process, especially during the spring and summer months. The annual average relative humidity is 71 percent along the coast and 59 percent inland. Because the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the basin's rainfall occurs from November through April. Annual average rainfall varies from approximately 9 inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thundershowers near the coast and slightly heavier shower activity in the eastern portion of the region near the mountains.

¹ South Coast Air Quality Management District, *CEQA Air Quality Handbook*, (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p A8-1.



NOT TO SCALE

SOURCE: Impact Sciences, Inc. – May 2005

FIGURE 5.4-1

South Coast Air Basin

5.4.1.2 Local Climate

The project site lies within the western portion of the 6,600-square-mile air basin. Predominant meteorological conditions in the basin are primarily light winds and shallow vertical mixing due to low-altitude temperature inversion. These conditions, when coupled with the surrounding mountain ranges, hinder the regional dispersion of air pollutants. The strength and location of a semi-permanent, high-pressure cell over the northern Pacific Ocean is the primary climatological influence on the basin, as is the ocean, which moderates the local climate by acting like a large heat reservoir. As a result of these influences, warm summers, mild winters, infrequent rainfall and moderate humidity typify climatic conditions through most of the basin. These meteorological conditions, in combination with regional topography, are also conducive to the formation and retention of ozone (O₃).

In the immediate project vicinity, climatic conditions are characterized by mild summers, mild winters, infrequent rainfall, moderate afternoon breezes and generally fair weather. Average annual temperature range from the low- to mid-60s °F. Summer daytime temperatures often reach over 76 degrees °F, and winter daytime temperatures often drop to 45 °F. Due to its proximity to the coast, temperatures in the project vicinity are on average lower than further inland due to the moderating effect of the ocean.

This microclimate is influenced by a marine layer that is characterized by fog or low stratus clouds. This marine layer occurs frequently throughout the year, but is most prevalent during the non-summer months. The stratus clouds generally recede seaward (or “burn off”) during the morning and afternoon and then return during the late afternoon and evening. The project site also experiences a high annual mean relative humidity of 71 percent as compared with some of the more inland areas that have mean relative humidities in the 60s. Average rainfall at Los Angeles International Airport, located within 2 miles of the project site, is approximately 12.5 inches per year.

Figure 5.4-2, Wind Patterns, illustrates the typical observed wind direction and average speed in the basin for both daytime and nighttime wind conditions during the annual seasons. Daytime wind patterns exhibit relatively strong onshore winds from the west and southwest at 3 to 12 miles per hour (mph) in July and January. Daytime wind velocities are on average lower in the months around January as compared with July. Nighttime wind patterns differ from those during the day and are characterized by lower wind velocities and a change in wind direction. As illustrated for nighttime in January, winds flow offshore to the south and southwest at 2 to 8 mph. During many days in July, the onshore wind directions occurring during the day continue throughout the night at 2 to 5 mph, with the exception of the areas near the San Gabriel Mountains where the winds blow down the slopes of the mountains in response to radiational cooling.

Long-term diurnal wind patterns in the general vicinity of the project site are dominated by higher-velocity on-shore daytime winds of 5 to 12 mph from the south and southeast. Diurnal winds from the south and southeast are created by pressure differences between the relatively cold ocean and the unevenly heated land. Nocturnal winds are weaker and flow at speeds of 3 to 5 mph from the north and northeast. Nocturnal winds are created when air along the mountain slopes cools and descends into the lower elevations of the basin towards the ocean. These diurnal and nocturnal wind patterns play an important role in dispersing air pollutants and moderating the temperatures throughout the basin and the project vicinity.²

5.4.1.3 Regional Air Quality

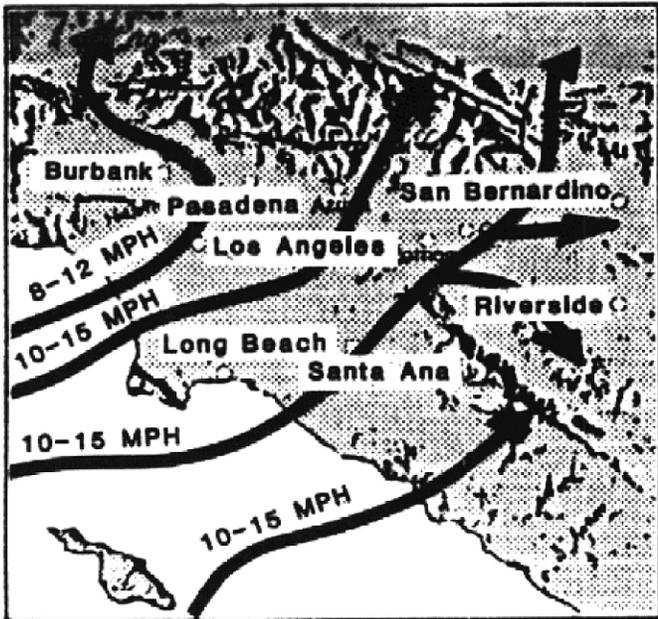
Air pollutants within the basin are primarily generated by two categories of sources: stationary and mobile. Stationary sources are known as “point sources,” which have one or more emission sources at a single facility, or “area sources,” which are widely distributed and produce many small emissions. Point sources are usually associated with manufacturing and industrial uses and include sources such as refinery boilers or combustion equipment that produces electricity or process heat. Examples of “area sources” include residential water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as barbecue lighter fluid or hair spray. “Mobile sources” refer to operational and evaporative emissions from motor vehicles. In 2006, mobile sources accounted for over 95 percent of the carbon monoxide (CO) emissions, approximately 58 percent of the oxides of sulfur (SO_x) emissions, over 91 percent of the NO_x emissions, and over 60 percent of the volatile organic compounds (VOC) found within the basin.^{3,4} Smog is formed when VOC and NO_x undergo photochemical reactions in sunlight to form O₃.

The determination of whether a region’s air quality is healthful or unhealthful is evaluated by comparing contaminant levels in ambient air samples to national and state standards. Health-based air quality standards have been established by California and the federal government for the following seven “criteria” air pollutants: (1) O₃, (2) CO, (3) NO₂, (4) SO₂, (5) PM₁₀, (6) PM_{2.5}, and (7) lead. These standards

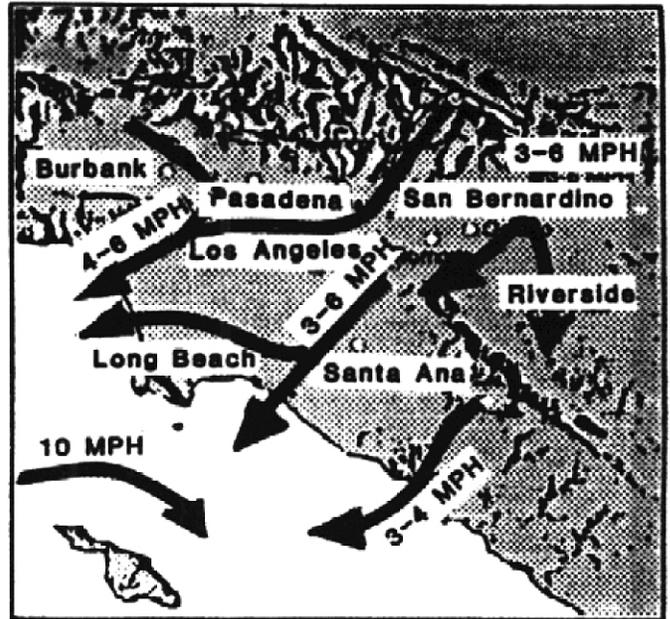
² Because of these wind patterns, the Basin both transports and receives air pollutants from the coastal portions of Ventura and Santa Barbara counties that are located in the South Central Coast Air Basin. The South Central Coast Air Basin also receives air pollutants from oil and gas development operations on the outer continental shelf. The 1997 AQMP does not specifically address the control requirements for these adjacent areas. However, the control measures in this plan meet both the CAA and CCAA transport requirements and will assist downwind areas in complying with the federal O₃ air quality standard (South Coast Air Quality Management District, 1997 AQMP, November 1996, p. I-23.).

³ California Air Resources Board, “2006 Estimated Basin Data – South Coast Air Basin.” <http://www.arb.ca.gov/ei/maps/basins/absmap.htm>, 2006.

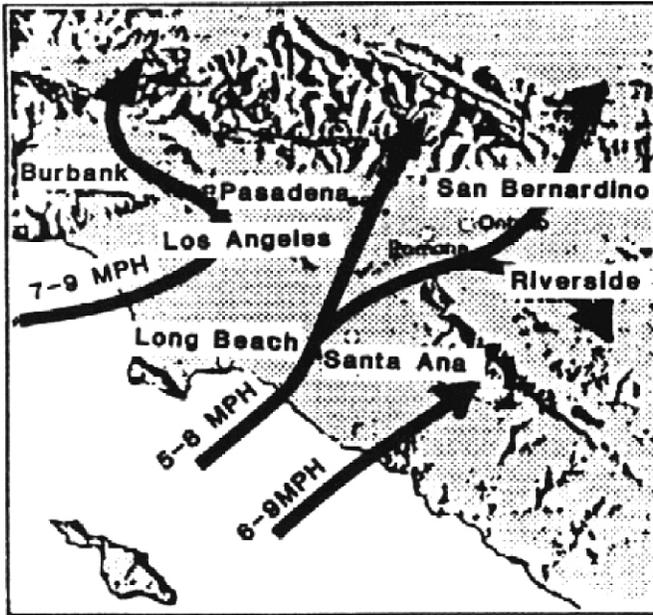
⁴ Percentages do not include natural sources.



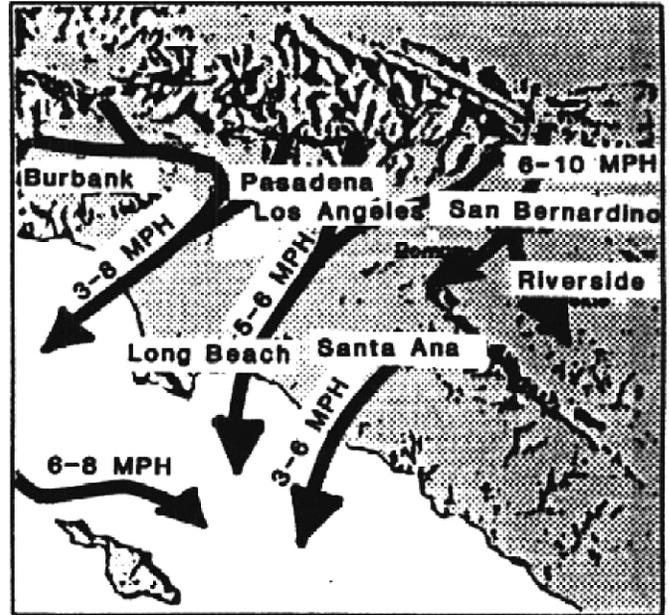
Typical Summer Daytime Ocean Winds
(noon to 7:00 pm)



Typical Summer Night Drainage Winds
(midnight to 5:00 am)



Typical Winter Daytime Ocean Winds
(noon to 7:00 pm)



Typical Winter Night Drainage Winds
(midnight to 5:00 am)



NOT TO SCALE

SOURCE: South Coast Air Quality Management District, CEQA Air Quality Handbook

FIGURE 5.4-2

Wind Patterns

were established to protect sensitive receptors from adverse health impacts due to exposure to air pollution with a margin of safety. California standards are more stringent than the federal standards and in the case of PM₁₀ and SO₂, much more stringent. California has also established standards for sulfates, visibility reducing particles, hydrogen sulfide and vinyl chloride, none of which have corresponding federal standards. Generally, the sources for hydrogen sulfide emissions include decomposition of human and animal wastes and industrial activities, such as food processing, coke ovens, kraft paper mills, tanneries, and petroleum refineries. There are no such uses or sources generated by the proposed project. Similarly, the sources for vinyl chloride emissions include manufacturing of plastic products, hazardous waste sites, and landfills; and, there are no such uses or sources generated by the proposed project. As a result, there is no need for any further evaluation of the hydrogen sulfide or vinyl chloride emissions associated with this project. In addition, according to the SCAQMD 2003 Air Quality Management Plan, the sulfate and visibility reducing particle standards have not been exceeded anywhere in the basin; and, therefore, due to its size and associated types of air pollution sources, the project is not expected to have any direct impact on those pollutants. Accordingly, this air quality analysis will focus primarily on the seven “criteria” air pollutants identified above.

Each of the air pollutants, inclusive of volatile organic compounds that are relevant to this project and that are of concern in the basin is briefly described below.

- Ozone (O₃). O₃ is a gas that is formed when VOCs and NO_x, both byproducts of internal combustion engine exhaust and other sources, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- Carbon Monoxide (CO). CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during winter mornings, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and motor vehicles operating at slow speeds are the primary source of CO in the basin, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- Nitrogen Dioxide (NO₂). A reddish-brown, highly reactive gas that is formed in the ambient air through the oxidation of nitric oxide (NO). NO₂ is also a byproduct of fuel combustion. The principle form of NO_x produced by combustion is NO, but NO reacts quickly to form NO₂, creating the mixture of NO and NO₂ referred to as NO_x. NO₂ acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_x is only potentially irritating. NO₂ absorbs blue light; the result of which is a brownish-red cast to the atmosphere and reduced visibility.
- Volatile Organic Compounds (VOCs). VOCs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by VOCs, but rather by

reactions of VOCs to form secondary air pollutants, including ozone. VOCs are also referred to as reactive organic compounds (ROCs) or reactive organic gases (ROGs). VOCs themselves are not “criteria” pollutants; however, they contribute to formation of O₃.

- Respirable Particulate Matter (PM₁₀). PM₁₀ consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM₁₀, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM₁₀ is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- Fine Particulate Matter (PM_{2.5}). PM_{2.5} refers to particulate matter that is 2.5 micrometers or smaller in size. The sources of PM_{2.5} include fuel combustion from automobiles, power plants, wood burning, industrial processes, and diesel-powered vehicles such as buses and trucks. These fine particles are also formed in the atmosphere when gases such as sulfur dioxide, NO_x, and VOCs are transformed in the air by chemical reactions.
- Sulfur dioxide (SO₂). SO₂ is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high-sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When sulfur dioxide oxidizes in the atmosphere, it forms sulfates (SO₄).
- Lead (Pb). Pb occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so most such combustion emissions are associated with off-road vehicles such as racecars that use leaded gasoline. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters.

Air quality of a region is considered to be in attainment of the state standards if the measured ambient air pollutant levels for O₃, CO, NO₂, PM₁₀, PM_{2.5}, SO₂ (1- and 24-hour), and lead are not exceeded, and all other standards are not equaled or exceeded at any time in any consecutive three-year period. The National Ambient Air Quality Standards (NAAQS) (other than O₃, PM₁₀, PM_{2.5}, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O₃, PM₁₀, and PM_{2.5} are based on statistical calculations over one- to three-year periods, depending on the pollutant.

The basin is currently designated as nonattainment for O₃, PM₁₀, and CO (federal). These violations are largely due to automotive vehicle emissions from the Los Angeles metropolitan area. Once designated as nonattainment, the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) require the particular air basin to develop a plan that will reach attainment status. This usually involves the local air quality district (e.g., the SCAQMD), along with the California Air Resources Board (CARB) and the US Environmental Protection Agency (US EPA) adopting emission control measures to cumulatively reduce a particular pollutant emission. Those criteria pollutants currently in attainment within the basin are expected to continue to decrease as control measures and strategies are developed to improve air quality.

The state and national ambient air quality standards for each of the “criteria” pollutants and their effects on health are summarized in **Table 5.4-1, Ambient Air Quality Standards**. **Table 5.4-1** also sets forth the state ambient air quality standards and health effects applicable to sulfates, visibility reducing particles, hydrogen sulfide and vinyl chloride, even though such pollutants are generally not applicable to the proposed uses on the project site.

**Table 5.4-1
Ambient Air Quality Standards**

Air Pollutant	Concentration/Averaging Time		Most Relevant Health Effects
	State Standard	Federal Primary Standard	
Ozone	0.070 ppm, 8-hr. avg. 0.09 ppm, 1-hr avg.	0.075 ppm, 8-hr avg. (3-year average of annual 4 th -highest daily maximum)	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage
Carbon Monoxide	9.0 ppm, 8-hr avg. 20 ppm, 1-hr avg.	9 ppm, 8-hr avg. 35 ppm, 1-hr avg.	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.18 ppm, 1-hr avg. 0.030 ppm, annual arithmetic mean	0.053 ppm, annual arithmetic mean	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg. 0.25 ppm, 1-hr avg.	0.030 ppm, annual arithmetic mean 0.14 ppm, 24-hr avg.	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in person with asthma
Respirable Particulate Matter (PM ₁₀)	20 µg/m ³ , annual arithmetic mean 50 µg/m ³ , 24-hr avg.	150 µg/m ³ , 24-hr avg.	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly

Air Pollutant	Concentration/Averaging Time		Most Relevant Health Effects
	State Standard	Federal Primary Standard	
Fine Particulate Matter (PM _{2.5})	12 µg/m ³ , annual arithmetic mean	15 µg/m ³ , annual arithmetic mean (3-year average) 35 µg/m ³ , 24-hr avg. (3-year average of 98 th percentile)	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly
Sulfates	25 µg/m ³ , 24-hr avg.	None	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage
Lead*	1.5 µg/m ³ , 30-day avg.	0.15 µg/m ³ , rolling 3-month average	(a) Increased body burden; and (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount to produce extinction of 0.23 per kilometer due to particles when relative humidity is less than 70%, 8-hour average (10 AM – 6 PM)	None	Visibility impairment on days when relative humidity is less than 70 percent
Hydrogen Sulfide	0.03 ppm, 1-hr avg.	None	Odor annoyance
Vinyl Chloride*	0.01 ppm, 24-hr avg.	None	Known carcinogen

Source:

¹ California Air Resources Board. "Air Quality Standards." <http://www.arb.ca.gov/research/aaqs/aaqs.htm>, 2009.

² Source: South Coast Air Quality Management District, Final Program Environmental Impact Report for the 2007 Air Quality Management Plan, (2007) Table 3.1-1, p. 3.1-3.

South Coast Air Quality Management District, Final Program Environmental Impact Report to the 2003 Draft AQMP (Diamond Bar, California: South Coast Air Quality Management District, August 2003), Table 3.1.1, p. 3.1.2. This report may be reviewed on the SCAQMD website at http://www.aqmd.gov/ceqa/documents/2003/aqmd/finalEA/aqmp/AQMP_FEIR.html.

µg/m³ = microgram per cubic meter.

ppm = parts per million by volume.

* 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.

Diesel particulate matter (DPM) is a specific type of particulate pollution. DPM is a subset of PM₁₀ and consists of particulate pollution from the combustion of diesel fuel. CARB has not established a separate ambient air quality standard specifically for DPM. However, CARB has designated DPM as a toxic air contaminant (TAC). Pollutants designated as TACs are regulated under state and local regulations that specifically address TACs. CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have established a cancer risk and a chronic non-cancer hazard index for DPM. Neither CARB nor OEHHA has established an acute hazard index for DPM.

5.4.1.4 Local Air Quality

To monitor the concentrations of the pollutants, the SCAQMD has divided the basin into Source Receptor Areas (SRAs) in which 33 air quality monitoring stations are operated. The project site is located in the Northwest Coastal Los Angeles County SRA (SRA 2). The monitoring station for this area is located at the Veterans Administration Hospital in West Los Angeles. This station monitors emission levels of O₃, CO, NO₂ and sulfate. The nearest station that monitors SO₂ and PM₁₀ is the Hawthorne station in the Southwest Coastal Los Angeles County SRA (SRA 3).⁵ The nearest station monitoring PM_{2.5} and lead is the North Main Street station in the Central Los Angeles County SRA (SRA 1).

Table 5.4-2, Ambient Pollutant Concentrations Registered in SRA 2, lists the ambient pollutant concentrations registered and the violations of state and federal standards that have occurred at the abovementioned monitoring stations from 2003 through 2007. As shown, the monitoring station has registered values above state and federal standards for O₃. However, the station has not registered any exceedances of the state or federal CO and NO₂ standards in the past five years. Concentrations of sulfur dioxide and lead have not been exceeded anywhere within the basin for several years.

**Table 5.4-2
Ambient Pollutant Concentrations Registered in SRA 2**

Pollutant	Standards ¹	Year				
		2003	2004	2005	2006	2007
OZONE (O ₃)						
Maximum 1-hr concentration (ppm)		0.134	0.107	0.114	0.10	0.117
Maximum 8-hr concentration (ppm)		0.105	0.089	0.090	0.074	0.087
Number of days exceeding state 1-hr standard	0.09 ppm	11	5	7	3	2
Number of days exceeding federal 8-hr standard ²	0.075 ppm	1	1	1	0	1
CARBON MONOXIDE (CO)						
Maximum 1-hr concentration (ppm)		5	4	3	3	3
Maximum 8-hr concentration (ppm)		2.7	2.3	2.1	2.0	1.9

⁵ The Hawthorne (SRA 3) monitoring station was moved to Los Angeles in 2004. Air monitoring data from 2004, 2005, 2006, and 2007 are from the Los Angeles monitoring station.

Pollutant	Standards ¹	Year				
		2003	2004	2005	2006	2007
Number of days exceeding state 8-hr standard	9.0 ppm	0	0	0	0	0
Number of days exceeding federal 8-hr standard	9 ppm	0	0	0	0	0
NITROGEN DIOXIDE (NO ₂)						
Maximum 1-hr concentration (ppm)		0.12	0.09	0.08	0.08	0.08
Annual arithmetic mean concentration (ppm)		0.0231	0.0198	0.0178	0.0173	0.0200
Number of days exceeding state 1-hr standard ³	0.18 ppm	0	0	0	0	0
SULFUR DIOXIDE (SO ₂) ⁴						
Maximum 1-hr concentration (ppm)		0.03	0.02*	0.04	0.02	0.02
Maximum 24-hr concentration (ppm)		0.006	0.007*	0.012	0.006	0.09
Annual arithmetic mean concentration (ppm)		0.001	0.003*	0.006	0.002	0.003
Number of days exceeding state 1-hr standard	0.25 ppm	0	0	0	0	0
Number of days exceeding state 24-hr standard	0.04 ppm	0	0	0	0	0
Number of days exceeding federal 24-hr standard	0.14 ppm	0	0	0	0	0
PARTICULATE MATTER (PM ₁₀) ⁴						
Maximum 24-hr concentration (µg/m ³)		58	47*	44	45	96
Annual arithmetic mean concentration (µg/m ³)		29.7	25.1*	22.9	26.5	27.7
Number of samples exceeding state 24-hr std.	50 µg/m ³	3	0	0	0	2
Number of samples exceeding federal 24-hr std.	150 µg/m ³	0	0	0	0	0
PARTICULATE MATTER (PM _{2.5}) ⁵						
Maximum 24-hr concentration (µg/m ³)		83.7	75.0	73.7	56.2	64.2
Annual arithmetic mean concentration (µg/m ³)		21.3	19.6	18.1	15.6	16.8
Number of samples exceeding federal 24-hr std. ⁶	35 µg/m ³	5	2	2	0	0
LEAD ⁵						
Maximum 30-day average concentration (µg/m ³)		0.15	0.03	0.02	0.02	na
Maximum quarterly average concentration (µg/m ³)		0.15	0.03	0.02	0.01	na
Number of months exceeding the state standard	1.5 µg/m ³	0	0	0	0	na
SULFATE						
Maximum 24-hr concentration (µg/m ³)		14.3	11.4	11.7	12.2	na
Number of days exceeding state standard	25 µg/m ³	0	0	0	0	na

na = not available

* = Less than 12 full months of data. May not be representative.

Sources:

- (i) South Coast Air Quality Management District, Air Quality Data (for 2003, 2004, 2005, 2006, and 2007), (Diamond Bar, California: South Coast Air Quality Management District, 2003, 2004, 2005, 2006, and 2007); <http://www.aqmd.gov/smog/historicaldata.htm>.
- (ii) California Air Resources Board Air Quality Database <http://www.arb.ca.gov/adam/welcome.html>. 2009.
- (iii) U.S. Environmental Protection Agency Air Quality Database <http://www.epa.gov/air/data/>. 2009.

¹ Parts by volume per million of air (ppm), micrograms per cubic meter of air (µg/m³), or annual arithmetic mean (aam).

² The federal 8-hour ozone standard was changed to 0.075 ppm in 2008. Statistics shown on are based on the previous 0.08 ppm standard.

³ The state NO₂ standard was revised to 1-hour average of 0.18 ppm and a new annual arithmetic mean standard of 0.030 ppm was adopted in March 2008. Statistics shown are based on the previous 1-hour standard of 0.25 ppm. The federal standard is annual arithmetic mean (AAM) of 0.053 ppm.

⁴ Pollutant is monitored at Southwest Coastal L.A. County (SRA 3), which is the nearest monitoring station to monitor the particular pollutant. In 2004, the SRA 3 monitoring station was moved from 534 W. 120th St in Hawthorne to 7201 W. Westchester Parkway in Los Angeles. Statistics for 2004 are based on the Los Angeles monitoring station, which accounted for a majority of the monitoring data. Nevertheless, data from 2004 does not contain 12 months of full data and therefore may not be representative.

⁵ Pollutant is monitored at Central L.A. County (SRA 1), which is the nearest monitoring station to monitor the particular pollutant.

⁶ The federal standard for PM_{2.5} was changed to 35 µg/m³ in 2006. Statistics shown are based on the 65µg/m³ standard. However, in 2006 and 2007, the SRA 1 monitoring station registered 11 and 20 samples, respectively, that exceeded the 35 µg/m³ standard.

Hydrogen sulfide, vinyl chloride and visibility reducing particles were not monitored by CARB or the SCAQMD in Los Angeles County during the period of 2003 to 2007.

The vicinity of the project site is characterized by residential and visitor-serving commercial uses, including a number of hotels, restaurants and marine-oriented commercial development. Emissions sources include stationary activities, such as space heating, cooking and water heating, and mobile activities, primarily automobile and truck traffic.

5.4.1.5 Global Climate Change

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer).⁶ Climate change may result from

- natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- natural processes within the climate system (e.g., changes in ocean circulation, reduction in sunlight from the addition of GHG and other gases to the atmosphere from volcanic eruptions); and
- human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification).

5.4.1.5.1 Description of the Greenhouse Effect

~~Heat retention within our atmosphere is an essential process to sustain life on Earth. The natural process through which heat is retained in the troposphere⁷ is called the "greenhouse effect". The greenhouse effect traps heat in the troposphere through a three-fold process as follows: (1) Short-wave radiation emitted by the Sun is absorbed by the Earth; (2) long-wave radiation re-emitted by the Earth emits a portion of this energy in the form of long wave radiation; and (3) greenhouse gases (GHGs) in the upper atmosphere absorbing or trapping the this long-wave radiation and re-emitting it back towards the Earth and this long wave radiation into space and toward the Earth. This re-emitting "trapping" of the long-wave (i.e., thermal) radiation by GHG emitted back towards the Earth is the underlying process of the greenhouse effect. Without the greenhouse effect, the Earth's average temperature would be approximately -18 degrees Celsius (°C) (0° F) instead of its present 14°C (57°F).⁸ While the most abundant~~

⁶ ~~United States~~ United States Environmental Protection Agency, "Glossary of Climate Change Terms," http://www.epa.gov/climatechange/glossary.html#Climate_change, 2008.

⁷ The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers). In general, day-to-day weather is confined to the troposphere (e.g., clouds, rain, convection, etc.).

⁸ National Climatic Data Center, "Global Warming Frequently Asked Questions," <http://www.ncdc.noaa.gov/oa/>

~~GHGs are~~ water vapor and carbon dioxide (CO₂) ~~are the most abundant GHGs.~~ Many other trace gases have greater ability to absorb and re-radiate long-wave radiation; ~~however, these gases are not as plentiful.~~ For this reason, ~~and~~ ~~to~~ gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-emit radiate long-wave radiation over a specified time. The GWP of a gas is determined using ~~CO₂carbon dioxide~~ as the reference gas with a GWP of 1 over 100 years. For example, a gas with a GWP of 10 is 10 times more potent than CO₂ over 100 years. The use of GWP allows GHG emissions to be reported using CO₂ as a baseline. The sum of each GHG multiplied by its associated GWP is referred to as carbon dioxide equivalents (CO₂e). This essentially means that 1 metric ton of a GHG with a GWP of 10 has the same climate change impacts as 10 metric tons of CO₂.

5.4.1.5.2 Greenhouse Gases

5.4.1.5.2.1 Primary Greenhouse Gases

Greenhouse gases include, but are not limited to, the following⁹:

- Water vapor (H₂O). ~~Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect.~~ Water vapor and clouds contribute approximately 66 to 85 percent of the greenhouse effect (water vapor alone contributes 36 to 66 percent).¹⁰ Natural processes such as evaporation from oceans and rivers and transpiration from plants contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively.¹¹ The primary human-related source of water vapor comes from fuel combustion in motor vehicles; however, this is not believed to contribute a significant amount (less than 1 percent) to atmospheric concentrations ~~of water vapor.~~¹² Therefore, the control and reduction of water vapor emissions is not within reach of human actions. The Intergovernmental Panel on Climate Change (IPCC) has not determined a GWP for water vapor.
- Carbon dioxide (CO₂). Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250

climate/globalwarming.html. 2008.

⁹ All Global Warming Potentials (GWPs) are given as 100-year GWP. Unless noted otherwise, all GWPs were obtained from the Intergovernmental Panel on Climate Change. Climate Change 1995: The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC. Cambridge (UK): Cambridge University Press. 1996.

¹⁰ ~~Gavin A. Schmidt, Real Climate.~~ “Water Vapour: Feedback or Forcing?,” <http://www.realclimate.org/index.php?p=142>. 2005.

¹¹ ~~United States Geological Survey,~~ “The Water Cycle: Evaporation,” <http://ga.water.usgs.gov/edu/watercycleevaporation.html>. 2007.

¹² Energy Information Administration, “Alternatives to Traditional Transportation Fuels 1994,” <http://www.eia.doe.gov/cneaf/alternate/page/environment/exec2.html>. 2008.

years, the concentration of carbon dioxide in the atmosphere has increased 35 percent.¹³ Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs. In 2004, 83.8 percent of California's GHG emissions were carbon dioxide.¹⁴

- Methane (CH₄). Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane come from landfills, natural gas systems, and enteric fermentation.¹⁵ Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.
- Nitrous oxide (N₂O). Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.
- Hydrofluorocarbons (HFCs). HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing as the continued phase-out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of HFCs range from 140 for HFC-152a to 6,300 for HFC-236fa.
- Perfluorocarbons (PFCs). Perfluorocarbons are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semi-conductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).¹⁶ The GWP of PFCs range from 5,700 to 11,900.
- Sulfur hexafluoride. Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the IPCC with a GWP of 23,900. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm]).¹⁷

¹³ ~~United States~~ Environmental Protection Agency, "Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2006," ~~2008~~, <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>, 2008.

¹⁴ California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004*, Figure 2, (2006), 2006, http://www.energy.ca.gov/2006publications/CEC_600_2006_013/CEC_600_2006_013_SF.PDF.

¹⁵ ~~United States~~ Environmental Protection Agency, "Methane: Sources and Emissions," <http://www.epa.gov/methane/sources.html>, n.d.

¹⁶ Energy Information Administration, "Other Gases: Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride," 2001, http://www.eia.doe.gov/oiaf/1605/gg00rpt/other_gases.html, n.d.

¹⁷ ~~United States~~ Environmental Protection Agency, "High GWP Gases and Climate Change," <http://www.epa.gov/highgwp/scientific.html#sf6>, n.d.

5.4.1.5.2.2 Other Greenhouse Gases

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone depletors; therefore, their gradual phase-out is currently in effect. A few of these compounds are discussed below:

- Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the protocol are subject to a consumption cap and gradual phase-out of HCFCs. The United States is scheduled to reduce its consumption to the allowed ~~achieve a 100 percent reduction to the cap~~ by 2030. The GWPs of HCFCs range from 93 for HCFC-123 to 2,000 for HCFC-142b.¹⁸
- 1,1,1-trichloroethane. 1,1,1-trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. In 1992, the US EPA issued Final Rule 57 FR 33754 scheduling the phase out of methyl chloroform by 2002.¹⁹ This was later accelerated to a 1995 phase-out ~~Therefore, the threat posed by methyl chloroform as a GHG will diminish. Nevertheless, t~~ The GWP of methyl chloroform is 110 ~~times that of carbon dioxide~~.²⁰
- Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the US EPA's Final Rule 57 FR 3374 for the phase out of ozone depleting substances. ~~Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents.~~ Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with GWPs ranging from 4,600 for CFC-11 to 14,000 for CFC-13.²¹
- Ozone. Ozone occurs naturally in the stratosphere where it is largely responsible for filtering harmful ultraviolet (UV) radiation. In the troposphere, ozone acts as a GHG by absorbing and re-radiating the infrared energy emitted by the Earth. As a result of the industrial revolution and rising emissions of NO_x and volatile organic compounds (VOCs) (ozone precursors), the concentrations of ozone in the troposphere have increased.²² Due to the short life span of ozone in the troposphere, its concentration

¹⁸ ~~United States~~ Environmental Protection Agency, "Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone-Depleting Substances," <http://www.epa.gov/fedrgstr/EPA-AIR/1996/January/Day-19/pr-372.html>, 1996.

¹⁹ ~~United States~~ Environmental Protection Agency, "The Accelerated Phase-Out of Class 1 Ozone-Depleting Substances," <http://www.epa.gov/ozone/title6/phaseout/acfact.html>, 2007.

²⁰ ~~United States~~ Environmental Protection Agency, "Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone-Depleting Substances," <http://www.epa.gov/fedrgstr/EPA-AIR/1996/January/Day-19/pr-372.html>, 1996.

²¹ ~~United States~~ Environmental Protection Agency, "Class I Ozone Depleting Substances," <http://www.epa.gov/ozone/ods.html>, 2006.

²² Intergovernmental Panel on Climate Change, "Climate Change 2001: Tropospheric Ozone," http://www.grida.no/climate/ipcc_tar/wg1/142.htm, n.d.

and contribution as a GHG is not well established. However, the greenhouse effect of tropospheric ozone is considered small, as the radiative forcing²³ of ozone is 25 percent of that of carbon dioxide.²⁴

5.4.1.5.3 Contributions to Greenhouse Gas Emissions

5.4.1.5.3.1 Global

Anthropogenic GHG emissions worldwide as of 2005 (the latest year for which data are available for Annex I countries) totaled approximately ~~37,408,300~~ 37,408,300 CO₂-equivalent-million metric tons of CO₂e (MMTCO₂e).²⁵ It should be noted that global emissions inventory data are not all from the same year and may vary depending on the source of the emissions inventory data.²⁶ ~~The top five~~ Six countries and the European ~~Union~~ Community accounted for approximately 70 percent of the total global emissions are listed in (See **Table 5.4-3, Six-Top Five GHG Producer Countries and the European Union Community**). The GHG emissions in more recent years may be substantially different than those shown in **Table 5.4-3**.

²³ Radiative forcing, measured in Watts/m², is an externally imposed perturbation (e.g., stimulated by greenhouse gases) in the radiative energy budget of the Earth's climate system (i.e., energy and heat retained in the troposphere minus energy passed to the stratosphere).

²⁴ Intergovernmental Panel on Climate Change, "Climate Change 2007: The Physical Science Basis, Summary for Policymakers," http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4_SPM_PlenaryApproved.pdf. 2007.

²⁵ The CO₂ equivalent emissions are commonly expressed as "million metric tons of carbon dioxide equivalent (MMTCO₂e)." The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated GWP, such that MMTCO₂e = (million metric tons of a GHG) x (GWP of the GHG). For example, the GWP for methane is 21. This means that emissions of one million metric tons of methane are equivalent to emissions of 21 million metric tons of CO₂.

²⁶ The global emissions are the sum of Annex I and non-Annex I countries without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries that 2004 data were unavailable, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," http://unfccc.int/ghg_emissions_data/ghg_data_from_unfccc/time_series_annex_i/items/3841.php and "Flexible GHG Data Queries" with selections for total GHG emissions excluding LULUCF/LUCF, all years, and non-Annex I countries, <http://unfccc.int/di/FlexibleQueries/Event.do?event=showProjection> n.d.

Table 5.4-3
Six Top Five GHG Producer Countries and the European Union Community

Emitting Countries	GHG Emissions ¹ (MMTCO ₂ Eg)*
China	7,250,724.5 ¹
United States	7,098,488.7 ²
European Union Community (EU), 27 Member States	5,342,419.6 ¹
Russian Federation	1,992,132.5 ¹
India	1,863,606.5 ²
Japan	1,383,359.9 ¹
Germany ³	1,001.5 ¹
Total	24,928,214.5 ⁷

Sources:

¹ World Resources Institute, "Climate Analysis Indicators Tool (CAIT)," <http://cait.wri.org/>. 2009. Excludes emissions and removals from land use, land-use change and forestry (LULUCF).

Sources:

² United Nations Framework Convention on Climate Change http://unfccc.int/ghg_emissions_data/ghg_data_from_unfccc/time_series_annex_i/items/3841.php

³ CHG emissions for China and India (Calendar Year 2000) were obtained from the World Resources Institute's

5.4.1.5.3.2 United States

As noted in **Table 5.4-3**, the United States was the number two top producer of global greenhouse gas emissions, as of 2005. Based on GHG emissions in 2004, six of the states — Texas, California, Pennsylvania, Ohio, Illinois, and Florida, in ranked order — would each rank among the top 30 GHG emitters internationally.²⁷ The primary greenhouse gas emitted by human activities in the United States was CO₂, representing approximately 84 percent of total greenhouse gas emissions.²⁸ Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 80 percent of US GHG emissions.²⁹

²⁷ World Resources Institute. "How U.S. State GHG Emissions Compare Internationally." <http://earthtrends.wri.org/updates/node/106>.

²⁸ United States Environmental Protection Agency. "Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2006." <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>. 2008.

²⁹ Ibid. United States Environmental Protection Agency. "Inventory of U.S. Greenhouse Gas Emissions."

5.4.1.5.3.3 California

Based upon the 2004 GHG inventory data (the latest year available) compiled by CARB for the California 1990 greenhouse gas emissions inventory, California emitted emissions of 484 MMTCO₂E, including emission resulting from out-of-state electrical generation.³⁰ Based on the CARB inventory and GHG inventories for countries contributing to the worldwide GHG emissions inventory compiled by the World Resources Institute ~~United Nations Framework Convention on Climate Change (WRI/UNFCCC)~~ for 2005, California's GHG emissions rank second in the United States (Texas is number one) with emissions of 423 MMTCO₂E (excluding emissions related to imported power) ~~and internationally between Ukraine (418.9 MMTCO₂E) and Spain (460.6 MMTCO₂E).~~³¹

A California Energy Commission (CEC) emissions inventory report placed CO₂ produced by fossil fuel combustion in California as the largest source of GHG emissions in 2004, accounting for 81 percent of the total GHG emissions.³² CO₂ emissions from other sources contributed 2.8 percent of the total GHG emissions, methane emissions 5.7 percent, nitrous oxide emissions 6.8 percent, and the remaining 2.9 percent was composed of emissions of high-GWP gases.³³ These high GWP gases are largely composed of refrigerants and a small contribution of sulfur hexafluoride (SF₆) used as insulating materials in electricity transmission and distribution.

The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources; industry; agriculture and forestry; and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions are presented in **Table 5.4-4, GHG Sources in California.**

³⁰ California Air Resources Board. *California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*. November 16, 2007.

³¹ World Resources Institute, "Climate Analysis Indicators Tool (CAIT) US Version 3.0," <http://cait.wri.org/cait-us.php>. 2009. ~~United Nations Framework Convention on Climate Change, "Annex I Parties – CHG total without LULUCF," http://unfccc.int/ghg_emissions_data/ghg_data_from_unfccc/time_series_annex_i/items/3841.php.~~

³² California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004*, (2006) Figure 2.

³³ ~~California Energy Commission. *Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004* Ibid.~~

**Table 5.4-4
GHG Sources in California¹**

Source Category	Annual GHG Emissions (MMTCO ₂ E) ^a	Percent of Total	Annual GHG Emissions (MMTCO ₂ E) ^b	Percent of Total
Agriculture	27.9	5.8%	27.9	6.6%
Commercial Uses	12.8	2.6%	12.8	3.0%
Electricity Generation	119.8	24.7%	58.5	13.8%
Forestry (excluding sinks)	0.2	0.0%	0.2	0.0%
Industrial Uses	96.2	19.9%	96.2	22.7%
Residential Uses	29.1	6.0%	29.1	6.9%
Transportation	182.4	37.7%	182.4	43.1%
Other ^c	16.0	3.3%	16.0	3.8%
Totals	484.4	100.0%	423.1	100.0%

Sources:

¹ California Air Resources Board. California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit. November 16, 2007.

^a Includes emissions associated with imported electricity, which account for 61.3 MMTCO₂E annually.

^b Excludes emissions associated with imported electricity.

^c Unspecified combustion and use of ozone-depleting substances.

It should be noted that emissions from each of these economic sectors are not confined to emissions from a single process, since there is cross-over with other sectors. For example, the GHG emissions from cement production places clinker manufacturing in its own category and the fuel used to heat the cement production process within the industrial fuel category. In the case of landfills, methane emissions and CO₂ emissions and sinks are reported in their respective portions of the inventory. Taken together, the CO₂ sinks approximately offset the landfill methane emissions. Additionally, fuel-related GHG emissions from transporting wastes to landfills are included in transportation fuels.

5.4.1.5.4 Global Climate Change

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer).³⁴ Climate change may result from:

³⁴ United States Environmental Protection Agency. Glossary of Climate Change Terms. http://www.epa.gov/climatechange/glossary.html#Climate_change.

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation, reduction in sunlight from the addition of GHG and other gases to the atmosphere from volcanic eruptions); and
- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification).

5.4.1.5.4.1 Influences of Industrialization and Human Activities~~Indications of Anthropogenic Influences~~

Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of carbon dioxide, methane, and nitrous oxide from before the start of the industrialization, around 1750, to over 650,000 years ago. For that period, it was found that carbon dioxide concentrations ranged from 180 ppm to 300 ppm. For the period from around 1750 to the present, global carbon dioxide concentrations increased from a pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range.³⁵ Global methane and nitrous oxide concentrations show similar increases for the same period (see **Table 5.4-5, Comparison of Global Pre-Industrial and Current GHG Concentrations**).

Table 5.4-5
Comparison of Global Pre-Industrial and Current GHG Concentrations

<u>Greenhouse Gas</u>	<u>Early Industrial Period Concentrations (ppm)</u>	<u>Natural Range for Last 650,000 Years (ppm)</u>	<u>2005 Concentrations (ppm)</u>
<u>Carbon Monoxide (CO)</u>	<u>280</u>	<u>180 to 300</u>	<u>379</u>
<u>Methane (CH₄)</u>	<u>715</u>	<u>320 to 790</u>	<u>1774</u>
<u>Nitrous Oxide (N₂O)</u>	<u>270</u>	<u>NA</u>	<u>319</u>

Source: Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, Summary for Policymakers, (2007).

The impact of anthropogenic activities on global climate change is readily apparent in the observational record. For example, surface temperature data shows that 11 of the 12 years from 1995 to 2006 rank

³⁵ Intergovernmental Panel on Climate Change, "Climate Change 2007: The Physical Science Basis, Summary for Policymakers," http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4_SPM_PlenaryApproved.pdf. 2007.

among the 12 warmest since 1850, the beginning of the instrumental record for global surface temperature.³⁶ In addition, the atmospheric water vapor content has increased since at least the 1980s over land, sea, and in the upper atmosphere, consistent with the capacity of warmer air to hold more water vapor; ocean temperatures are warmer to depths of 3,000 feet; and a marked decline has occurred in mountain glaciers and snow pack in both hemispheres, polar ice and ice sheets in both the arctic and Antarctic regions.³⁷

5.4.1.5.4.2 Influence of Industrialization

~~Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of carbon dioxide, methane, and nitrous oxide from before the start of the industrialization, around 1750, to over 650,000 years ago. For that period, it was found that carbon dioxide concentrations ranged from 180 ppm to 300 ppm. For the period from around 1750 to the present, global carbon dioxide concentrations increased from a pre industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre industrial period range.³⁸ Global methane and nitrous oxide concentrations show similar increases for the same period (see Table 5.4-5, Comparison of Global Pre-Industrial and Current GHG Concentrations).~~

**Table 5.4-5
Comparison of Global Pre-Industrial and Current GHG Concentrations¹**

Greenhouse Gas	Early Industrial Period Concentrations (ppm)	Natural Range for Last 650,000 Years (ppm)	2005 Concentrations (ppm)
Carbon Monoxide	280	180 to 300	379
Methane	715	320 to 790	1774
Nitrous Oxide	270	NA	319

Sources:

¹ Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. February 2007.

³⁶ Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. http://ipcc.wg1.ucar.edu/wg1/docs/WG1AR4_SPM_PlenaryApproved.pdf. *Ibid*.

³⁷ Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. *Ibid*.

³⁸ Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*.

5.4.1.5.5 Effects of Global Climate Change

The primary effect of global climate change has been a rise in average global tropospheric temperature of 0.2° Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005.³⁹ Climate change modeling using 2000 emission rates shows that further warming would occur, which would induce further changes in the global climate system during the current century.⁴⁰ Changes to the global climate system and ecosystems and to California would include, but would not be limited to

- declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;⁴¹
- rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets;⁴²
- changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;⁴³
- declining Sierra snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years;⁴⁴

³⁹ Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. Ibid.

⁴⁰ Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. Ibid.

⁴¹ Ibid.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ California Environmental Protection Agency, Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, (2006).

- increasing the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas located in the Southern California area and the San Joaquin Valley by the end of the 21st century;⁴⁵
- increasing the potential for erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Delta and associated levee systems due to the rise in sea level;⁴⁶
- increasing pest infestation making California more susceptible to forest fires;⁴⁷ and
- increasing the demand for electricity by 1 to 3 percent by 2020 due to rising temperatures resulting in hundreds of millions of dollars in extra expenditures.⁴⁸
- ~~the loss of sea ice and mountain snow pack resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;~~⁴⁹
- ~~rise in global average sea level primarily due to thermal expansion and melting of glaciers and ice caps, the Greenland and Antarctic ice sheets;~~⁵⁰
- ~~changes in weather that includes, widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic and aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;~~⁵¹
- ~~decline of Sierra snowpack, which accounts for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years;~~⁵²
- ~~increase in the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas of Los Angeles and the San Joaquin Valley by the end of the 21st century;~~⁵³ and

45 Ibid.

46 Ibid.

47 Ibid.

48 Ibid.

49 Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers.* Ibid.

50 Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers.* Ibid.

51 Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers.* Ibid.

52 California Environmental Protection Agency, Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the Legislature, (Executive Summary),* March (2006).

53 California Environmental Protection Agency, Climate Action Team. *Climate Action Team Report to Governor Schwarzenegger and the Legislature (Executive Summary).* Ibid.

- ~~high potential for erosion of California's coastlines and sea water intrusion into the Delta and levee systems due to the rise in sea level.~~⁵⁴

5.4.1.6 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. Any facilities that house these sensitive receptors are considered sensitive land uses. Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time. It is, therefore, a primary goal to avoid subjecting these populations to sustained exposure of any pollutants. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions that can magnify the damage caused by air pollution. Industrial and commercial workers are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent due to a majority of the workers staying indoors. In addition, the working population is generally the healthiest segment of the public.

Sensitive receptors within the project vicinity include residential uses along Tahiti Way, Marquesas Way, Panay Way, Via Marina, Washington Boulevard, Mindanao Way and Fiji Way and the Centinela Freeman Regional Medical Center Marina Campus at 4650 Lincoln Boulevard.

5.4.2 REGULATORY AGENCIES AND RESPONSIBILITIES

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county Basin (Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties) and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The project site is located within the basin, which is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino and San Jacinto mountains to the north and east (see **Figure 5.4-1, South Coast Air Basin**).

Air quality within the basin is addressed through the efforts of various federal, state, regional and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy making, education and a variety of programs. The agencies primarily responsible for improving the air quality within the basin are discussed below along with their individual responsibilities.

⁵⁴ ~~California Environmental Protection Agency, Climate Action Team. Climate Action Team Report to Governor Schwarzeneger and the Legislature (Executive Summary). Ibid.~~

5.4.2.1 US Environmental Protection Agency

The US EPA is responsible for enforcing the federal CAA and the NAAQS that it establishes. These standards identify levels of air quality for seven “criteria” pollutants: O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and lead. The threshold levels are considered to be the maximum concentration of ambient (background) air pollutants determined safe (within an adequate margin of safety) to protect the public health and welfare. The federal ambient air quality standards are listed in **Table 5.4-1**. As indicated, the averaging times for the various pollutants range from 1 hour to annual. The standards are reported as a concentration, in ppm, by volume, or as a weighted mass of material per a volume of air, in micrograms of pollutant per cubic meter of air (µg/m³).

The 1990 CAA Amendments were enacted in order to better protect the public’s health and create more efficient methods of lowering pollutant emissions. The major areas of improvement from the amendments include air basin designations, automobile/heavy duty engine emissions, and toxic air pollutants. The US EPA designates air basins as being in “attainment” or “nonattainment” for each of the seven “criteria” pollutants. Nonattainment air basins are ranked (marginal, moderate, serious, severe, or extreme) according to the degree of the threshold violation. The air basin is then required to submit a State Implementation Plan (SIP) that describes how the state will achieve the federal standards by specified dates. The stringency of emission control measures in a given SIP depends on the severity of the air quality within specific air basin. The status of the basin with respect to NAAQS attainment is summarized in **Table 5.4-6, National Ambient Air Quality Standards and Status – South Coast Air Basin**.

**Table 5.4-6
National Ambient Air Quality Standards and Status
South Coast Air Basin (Los Angeles County)**

Pollutant	Averaging Time	Designation/Classification
Ozone (O ₃)	8 Hour	Nonattainment/Severe 17
Carbon Monoxide (CO)	1 Hour, 8 Hour	Attainment
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	Attainment/Unclassifiable
Sulfur Dioxide (SO ₂)	24 Hour, Annual Arithmetic Mean	Attainment
Respirable Particulate Matter (PM ₁₀)	24 Hour	Nonattainment/Serious
Fine Particulate Matter (PM _{2.5})	24 Hour, Annual Arithmetic Mean	Nonattainment
Lead (Pb)	Calendar Quarter	Attainment

Source: Environmental Protection Agency. “Region 9: Air Programs, Air Quality Maps.” http://www.epa.gov/region9/air/maps/maps_top.html.

In response to the rapid population growth and its subsequent rise in automobile operations, the 1990 CAA Amendments address tailpipe emissions from automobiles, heavy-duty engines, and diesel fuel engines. The 1990 Amendments established more stringent standards for hydrocarbons, NO_x, and CO emissions in order to reduce ozone and carbon monoxide levels in heavily populated areas. Fuels became more strictly regulated by requiring new fuels to be less volatile, contain less sulfur (regarding diesel fuels), and have higher levels of oxygenates (oxygen-containing substances to improve fuel combustion). The US EPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and those that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking.

Due to the lack of toxic emissions reduction by the 1977 CAA, the 1990 CAA Amendments listed 189 hazardous air pollutants (HAPs) that are carcinogenic, mutagenic, and/or reproductive toxins to be reduced. Title III of the 1990 federal CAA Amendments amended Section 112 of the CAA to replace the former program with an entirely new technology-based program. This program involves identifying all major sources (greater than 10 tons/year of a single HAP or 25 tons/year of combined HAPs) and area sources (i.e., non-major sources) in order to implement maximum achievable control technology (MACT) that will reduce health impacts.

5.4.2.2 California Air Resources Board

CARB, a branch of the California Environmental Protection Agency (Cal/EPA), oversees air quality planning and control throughout California. It is primarily responsible for ensuring implementation of the CCAA, responding to the federal CAA requirements and for regulating emissions from motor vehicles and consumer products within the state. CARB has established emission standards for vehicles sold in California and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

The CCAA established a legal mandate to achieve the California ambient air quality standards by the earliest practicable date. These standards apply to the same seven criteria pollutants as the federal CAA and also include sulfates, visibility reducing particles, hydrogen sulfide and vinyl chloride. They are also more stringent than the federal standards and, in the case of PM₁₀ and SO₂, far more stringent.

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. These designation criteria provide the basis for CARB to designate areas of the state as "attainment," "nonattainment," or "unclassified" for the state standards. In addition, Health and Safety Code Section 39608 requires CARB to use the designation criteria to designate areas of California and to annually review those area designations. CARB makes area designations for 10 criteria pollutants:

O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, sulfates, lead, hydrogen sulfide and visibility-reducing particles.⁵⁵ The status of the basin with respect to attainment with the California Ambient Air Quality Standards (CAAQS) is summarized in **Table 5.4-7, California Ambient Air Quality Standards and Status – South Coast Air Basin**, below.

**Table 5.4-7
California Ambient Air Quality Standards and Status
South Coast Air Basin**

Pollutant	Averaging Time	Designation/Classification
Ozone (O ₃)	1 Hour, 8 Hour	Nonattainment ¹
Carbon Monoxide (CO)	1 Hour, 8 Hour	Attainment
Nitrogen Dioxide (NO ₂)	1 Hour	Attainment
Sulfur Dioxide (SO ₂)	1 Hour, 24 Hour	Attainment
Respirable Particulate Matter (PM ₁₀)	24 Hour, Annual Arithmetic Mean	Nonattainment
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	Nonattainment
Lead (Pb) ²	30 Day Average	Attainment
Sulfates (SO ₄)	24 Hour	Attainment
Hydrogen Sulfide (H ₂ S)	1 Hour	Unclassified
Vinyl Chloride ²	24 Hour	Unclassified
Visibility Reducing Particles	8 Hour (10 AM–6 PM)	Unclassified

Source: California Air Resources Board. "Area Designations Maps/State and National." <http://www.arb.ca.gov/desig/adm/adm.htm>.

¹ CARB has not issued area classifications based on the new state 8-hour standard. The previous classification for the 1-hour ozone standard was Extreme.

² CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined.

5.4.2.3 Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments for the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura. As a regional planning agency, SCAG serves as a forum for regional issues relating to transportation, the economy, community development and the environment. SCAG also serves as the regional clearinghouse for

⁵⁵ California Air Resources Board. "Area Designations (Activities and Maps)." <http://www.arb.ca.gov/desig/desig.htm>; Written communication with Marcy Nystrom, California Air Resources Board, 24 December 2003, stating that state law states requires ARB to make area designations for pollutants with state standards listed in California Code of Regulations, Title 17, Section 70200. However, vinyl chloride is not included in this section of the California Code of Regulations; therefore, the ARB does not make area designations for vinyl chloride.

projects requiring environmental documentation under federal and state law. In this role, SCAG reviews projects to analyze their impacts on SCAG's regional planning efforts.

Although SCAG is not an air quality management agency, it is responsible for several air quality planning issues. Specifically, as the designated Metropolitan Planning Organization (MPO) for the Southern California region, it is responsible, pursuant to Section 176(c) of the 1990 amendments to the CAA, for providing current population, employment, travel and congestion projections for regional air quality planning efforts.

5.4.2.4 South Coast Air Quality Management District

The management of air quality in the basin is the responsibility of the SCAQMD. This responsibility was given to SCAQMD by the California Legislature's adoption of the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Lewis-Presley Air Quality Act, SCAQMD is responsible for bringing air quality in the areas under its jurisdiction into conformity with federal and state air quality standards. Specifically, SCAQMD is responsible for monitoring ambient air pollutant levels throughout the basin and for developing and implementing attainment strategies to ensure that future emissions will be within federal and state standards. The SCAQMD adopts rules, control measures, and permitting programs that are appropriate for their specific region according to technical feasibility, cost effectiveness, and the severity of nonattainment. The SCAQMD must then implement and enforce compliance with those rules and programs.

5.4.2.4.1 SCAQMD Air Quality Management Plan

The SCAQMD and SCAG have the responsibility of preparing an air quality management plan (AQMP) that addresses both federal and state CAA requirements. The AQMP must specify goals, policies, and programs for improving air quality, and it establishes thresholds for daily operation emissions. A multi-level partnership of governmental agencies at the federal, state, regional, and local levels implement the programs contained in these plans. Agencies involved include the US EPA, CARB, local governments, SCAG, and the SCAQMD. Environmental review of individual projects within the region must demonstrate whether daily construction and operational emissions exceed thresholds established by the SCAQMD.

The SCAQMD is required to produce plans describing how air quality will be improved. The CCAA requires that these plans be updated triennially in order to incorporate the most recent available technical information. In addition, the US EPA requires that transportation conformity budgets be established based on the most recent planning assumptions (i.e., within the last five years). Plan updates are

necessary to ensure continued progress toward attainment and to avoid a transportation conformity lapse and associated federal funding losses. On November 8, 2005, the US EPA issued a final rule outlining the requirements for a new plan to achieve the 8-hour standard. The plan was to be submitted to the US EPA by June 15, 2007 (three years after the attainment designation).

To meet the planning requirements for the 8-hour standard, the SCAQMD published the Draft Final 2007 AQMP, which was adopted by the SCAQMD Governing Board on June 1, 2007. The purpose of the 2007 AQMP for the basin (and those portions of the Salton Sea Air Basin under the SCAQMD's jurisdiction) is to set forth a comprehensive program that will lead these areas into compliance with federal and state air quality planning requirements for ozone and PM_{2.5}. In addition, as part of the 2007 AQMP, the SCAQMD is requesting US EPA's approval of a "bump-up" to the "extreme" nonattainment classification for the basin, which would extend the attainment date to 2024 and allow for the attainment demonstration to rely on emission reductions from measures that anticipate the development of new technologies or improvement of existing control technologies. Although PM_{2.5} plans for nonattainment areas are due in April 2008, the 2007 AQMP also focuses on attainment strategies for the PM_{2.5} standard through stricter control of sulfur oxides, directly emitted PM_{2.5}, NO_x, and VOCs. The need to commence PM_{2.5} control strategies before April 2008 is due to the attainment date for PM_{2.5} (2015) being much earlier than that for ozone (2021 for the current designation of severe-17 or 2024 for the extreme designation). Control measures and strategies for PM_{2.5} will also help control ozone generation in the region because PM_{2.5} and ozone share similar precursors (e.g., NO_x). The District has integrated PM_{2.5} and ozone reduction control measures and strategies in the 2007 AQMP. In addition, the AQMP focuses on reducing VOC emissions, which have not been reduced at the same rate as NO_x emissions in the past. Hence, the basin has not achieved the reductions in ozone as were expected in previous plans. The AQMP was based on assumptions provided by both CARB and SCAG in the new EMFAC2007 motor vehicle model and the most recent demographics information, respectively. On September 27, 2007, the CARB Board adopted the 2007 SCAQMD AQMP as part of the SIP.

5.4.2.4.2 SCAQMD Rules and Regulations

The SCAQMD is responsible for limiting the amount of emissions that can be generated throughout the basin by various stationary, area and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board, which limit the emissions that can be generated by various uses/activities and that identify specific pollution reduction measures, which must be implemented in association with various uses and activities. These rules not only regulate the emissions of the federal and state criteria pollutants but also toxic air contaminants (TACs) and acutely hazardous materials. The rules are also subject to ongoing refinement by SCAQMD.

Among the SCAQMD rules applicable to the proposed project are Rule 403, Fugitive Dust, Rule 1113, Architectural Coatings and Rule 1403, Asbestos Emissions from Demolition/Renovation Activities. Rule 403 requires the use of stringent best available control measures to minimize PM₁₀ emissions during grading and construction activities. Rule 1113 will require reductions in the VOC content of coatings, with a substantial reduction in the VOC content limit for flat coatings in July 2008. Compliance with SCAQMD Rule 1403 requires that the owner or operator of any demolition or renovation activity to have an asbestos survey performed prior to demolition and provide notification to the SCAQMD prior to commencing demolition activities.

Stationary emissions sources subject to these rules are regulated through SCAQMD's permitting process. Through this permitting process, SCAQMD also monitors the amount of stationary emissions being generated and uses this information in developing the 2007 AQMP. The project would be subject to SCAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts.

5.4.2.4.3 SCAQMD CEQA Air Quality Handbook

In 1993, the SCAQMD prepared its *CEQA Air Quality Handbook* to assist local government agencies and consultants in preparing environmental documents for projects subject to CEQA. There has been one full update to the document in November 1993, and it is currently undergoing an update process. The document describes the criteria that SCAQMD uses when reviewing and commenting on the adequacy of environmental documents. The handbook recommends thresholds of significance in order to determine if a project will have a significant adverse environmental impact. Other important contents are methodologies for predicting project emissions and mitigation measures that can be taken to avoid or reduce air quality impacts. Although the Governing Board of the SCAQMD has adopted the *CEQA Air Quality Handbook*, it does not, nor does it intend to, supersede a local jurisdiction's CEQA procedures.

The *CEQA Air Quality Handbook* is currently undergoing revision. As of June 2007, the *CEQA Air Quality Handbook* was still undergoing revision. However, the air quality significance thresholds have been revised, and a new procedure referred to as "localized significance thresholds," has been added. The *CEQA Air Quality Handbook* and these revised methodologies were used in preparing the air quality analysis in this EIR section.

5.4.2.5 Local Governments

Local governments have the authority and responsibility to reduce air pollution through their police power and land use decision-making authority. Specifically, local governments are responsible for the mitigation of emissions resulting from land use decisions and for the implementation of transportation

control measures as outlined in the AQMP.⁵⁶ The AQMP assigns local governments certain responsibilities to assist the basin in meeting air quality goals and policies. In general, a first step toward implementation of a local government's responsibility is accomplished by identifying air quality goals, policies and implementation measures in its general plan, such as the Air Quality section in the County of Los Angeles General Plan. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality, by requiring such improvements as bus turnouts, energy-efficient streetlights and synchronized traffic signals.⁵⁷ In accordance with the CEQA requirements and the CEQA review process, local governments assess air quality impacts, require mitigation of potential air quality impacts by conditioning discretionary permits, and monitor and enforce implementation of such mitigation.⁵⁸

5.4.2.5.1 County of Los Angeles Green Building Program

In January 2007, the Los Angeles County Board of Supervisors adopted the Countywide Energy and Environmental Policy (Policy), which provides guidelines for sustainability and green building design within County departments. The Policy states that the County will join the California Climate Action Registry (CCAR) to establish goals for reducing GHG emissions. The Policy also incorporates a sustainable building program into County capital improvement Projects and seeks to integrate energy efficient and sustainable designs into future County building plans.

In addition, the court settlement in August 2007 regarding the lack of GHG mitigation strategies in the San Bernardino County General Plan prompted Los Angeles County to pursue more immediate and formal mitigation strategies. Accordingly, the County prepared its "Report on the Impact of the State Action Against San Bernardino County Regarding its General Plan Update," which contains numerous recommendations for future requirements to combat global warming. The report has four main sections: (1) energy efficiency and water efficiency program; (2) green buildings/low impact development program; (3) environmental stewardship program; and (4) public outreach and education program.

On January 16, 2007, the County Board of Supervisors instructed the Directors of Regional Planning and Public Works to create a green building program that would incorporate green building standards into all appropriate industrial, commercial, and residential development Projects within all unincorporated areas of the county. An inter-departmental Task Force was formed to develop and review draft ordinance in support of the Board's request. The Task Force designed a Green Building Program that includes the

⁵⁶ South Coast Air Quality Management District, *CEQA Air Quality Handbook*, (Diamond Bar, California: South Coast Air Quality Management District, April (1993), p. 2-2.

⁵⁷ Ibid. South Coast Air Quality Management District. *CEQA Air Quality Handbook*. p. 2-2.

⁵⁸ Ibid. South Coast Air Quality Management District. *CEQA Air Quality Handbook*. p. 2-2.

green building ordinance, low impact development ordinance and drought-tolerant landscape ordinance. These ordinances were approved by the Board on November 18, 2008, and became effective on January 1, 2009.

The green building ordinance requires the incorporation of green building practices in the construction of new projects. The green building practices are intended to: (1) conserve energy, water, and natural resources; (2) divert waste from landfills; (3) minimize impacts to existing infrastructure; and (4) promote a healthier environment. The green building standards ordinance would apply to four categories of development, with corresponding requirements for each: (i) small residential and nonresidential projects; (ii) medium-sized residential projects; (iii) medium-sized (i.e., 10,000 to 25,000 square feet) nonresidential, commercial, mixed-use, or first-time tenant improvement projects; and (iv) large nonresidential, commercial, mixed-use, or first-time tenant improvement projects greater than 25,000 square feet, and all new high-rise buildings greater than 75 feet in height. In addition, the proposed ordinance also would contain minimum standards for all applicable projects:

- Energy: 15 percent better than Title 24;
- Water: Smart controller in landscaped areas, 75 percent of the landscaped area to use drought-tolerant plants, turf restrictions, hydrozones;
- Resources: Minimum 50 percent waste diversion during construction; and
- Trees: Minimum of 2 trees planted per single family home, 1 tree planted per 5,000 square feet of lot area for multi-family projects, 3 trees planted per 10,000 square feet of lot area for nonresidential projects; and
- Low Impact Development: Single-family residences to use three (3) of seven (7) approved low-impact development best management practices.

The low impact development (LID) ordinance requires the use of LID principles in development projects. LID encourages site sustainability and smart growth in a manner that respects and preserves the characteristics of the County's watersheds, drainage paths, water supplies and natural resources.

The drought-tolerant landscaping ordinance establishes minimum standards for the design and installation of landscaping using drought-tolerant and native plants that require minimal use of water. The requirements ensures that the County conserves water resources by requiring landscaping that is appropriate to the region's climate and nature of the use.

5.4.2.3 Greenhouse Gas Regulatory Programs

5.4.2.3.1 International Activities

5.4.2.3.1.1 Kyoto Protocol

The original Kyoto Protocol was negotiated in December 1997 and came into force on February 16, 2005. ~~As of May 2008, 181 countries and the European Economic Community have ratified the agreement.⁵⁹ Notably however, the US has not ratified the protocol.~~ Participating nations are separated into Annex 1 (i.e., industrialized countries) and Non-Annex 1 (i.e., developing countries) countries that have different requirements for GHG reductions. The goal of the protocol is to achieve overall emissions reduction targets for six GHGs by the period 2008 to 2012. The six GHGs regulated under the protocol are carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, HFCs, and PFCs. Each nation has an emissions reduction target for which they must reduce GHG emissions a certain percentage below 1990 levels (e.g., 8 percent reduction for the European Union, 6 percent reduction for Japan). The average reduction target for nations participating in the Kyoto Protocol is approximately 5 percent below 1990 levels.⁶⁰ Although the United States has not ratified the protocol, it has established an 18 percent reduction in GHG emissions intensity by 2012.⁶¹ Greenhouse gas intensity is the ratio of GHG emissions to economic output (i.e., gross domestic product).

5.4.2.3.1.2 Intergovernmental Panel on Climate Change

The World Meteorological Organization (WMO) and United Nations Environmental Program (UNEP) established the Intergovernmental Panel on Climate Change (IPCC) in 1988. The goal of the IPCC is to evaluate the risk of climate change caused by human activities. Rather than performing research or monitoring climate, the IPCC relies on peer-reviewed and published scientific literature to make its assessment. The IPCC assesses information (i.e., scientific literature) regarding human-induced climate change, impacts of human-induced climate change, and options for adaptation and mitigation of climate change. The IPCC reports its evaluation through special reports called “assessment reports.” The latest assessment report (i.e., Fourth Assessment Report, consisting of three working group reports and a synthesis report based on the first three reports) was published in 2007.⁶²

⁵⁹ United Nations Framework Convention on Climate Change, “Status of Ratification,” http://unfccc.int/kyoto_protocol/background/status_of_ratification/items/2613.php. n.d.

⁶⁰ Pew Center on Global Climate Change. Bush Policy vs. Kyoto. http://www.pewclimate.org/what_s_being_done/in_the_world/bush_intensity_target_2.cfm

⁶¹ The White House. Addressing Global Climate Change. <http://www.whitehouse.gov/ceq/global-change.html>

⁶² The IPCC’s Fourth Assessment Report is available online at <http://www.ipcc.ch/>.

5.4.2.36.2 Federal Activities

In *Massachusetts vs. EPA*, the Supreme Court held that US EPA has the statutory authority under Section 202 of the CAA to regulate GHGs from new motor vehicles. The court did not hold that the US EPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs from motor vehicles cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. Upon the final decision, President Bush signed Executive Order 13432 on May 14, 2007, directing the US EPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision. The order requires the US EPA to coordinate closely with other federal agencies and to consider the president's Twenty-in-Ten plan in this process. The Twenty-in-Ten plan would establish a new alternative fuel standard that would require the use of 35 billion gallons of alternative and renewable fuels by 2017. The US EPA will be working closely with the Department of Transportation in developing new automotive efficiency standards.

In December 2007, then President Bush signed the Energy Independence and Security Act of 2007, which sets a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022 and sets a national fuel economy standard of 35 miles per gallon by 2020. The Act also contains provisions for energy efficiency in lighting and appliances and for the implementation of green building technologies in federal buildings. The act is positioned as a response to President Bush's Twenty-in-Ten plan.

On July 11, 2008, the U.S. EPA issued an Advanced Notice of Proposed Rulemaking (ANPRM) on regulating GHGs under the Clean Air Act. The ANPRM reviews the various CAA provisions that may be applicable to the regulation of GHGs and presents potential regulatory approaches and technologies for reducing GHG emissions. On April 10, 2009, the US EPA published the Proposed Mandatory Greenhouse Gas Reporting Rule in the *Federal Register*.⁶³ The U.S. EPA has also proposed rules for geologic sequestration of CO₂. The sequestration rule is undergoing further development.

On May 19, 2009, the Obama Administration announced a new national policy intended to reduce fuel consumption and GHG emissions. The proposed standards cover model years 2012-2016 and will require an average fuel economy standard of 35.5 mpg in 2016 (39 mpg for cars, 30 mpg for trucks), or approximately 250 grams of CO₂ per mile. This policy is in contrast to the Corporate Average Fuel Economy (CAFE) standards established under 2007 legislation, which specified a minimum of 35 miles per gallon (mpg) by 2020. Both the US EPA and the National Highway Traffic Safety Administration

⁶³ U.S. Environmental Protection Agency, "Climate Change," <http://www.epa.gov/climatechange/>. 2009.

(NHTSA) issued a Notice of Upcoming Joint Rulemaking to Establish Vehicle GHG Emissions and CAFE Standards the same day as the announcement in order to establish a consistent national policy pursuant to the separate statutory frameworks under which US EPA and Department of Transportation (DOT) operate (NHTSA is a division of DOT).

5.4.2.36.3 California Activities

5.4.2.36.3.1 Assembly Bill 1493

In a response to the transportation sector accounting for more than half of California's CO₂ emissions, Assembly Bill 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 required CARB to set GHG emission standards for model year 2009 and later passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. ~~The bill required that CARB set the GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. CARB adopted the standards in September 2004. These standards are intended to reduce emissions of carbon dioxide and other greenhouse gases (e.g., nitrous oxide, methane). The new standards would phase in during the 2009 through 2016 model years. When fully phased in, the near-term (2009 through 2012) standards will result in reduction of about 22 percent in greenhouse gas emissions compared to the emissions from the 2002 fleet, while the mid-term (2013 through 2016) standards will result in a reduction of about 30 percent. Some currently used technologies that achieve GHG reductions include small engines with superchargers, continuously variable transmissions, and hybrid electric drive.~~

In December 2004, these regulations were challenged in federal court by the Alliance of Automobile Manufacturers, who claimed that the law regulated vehicle fuel economy, a duty assigned to the federal government. The case had been put on hold by a federal judge in Fresno pending the US Supreme Court's decision in *Massachusetts vs. EPA*. The US Supreme Court's ruling in favor of the state of Massachusetts has been discussed as a likely vindication of state efforts to control GHG emissions. In December 2007, ~~Judge Ishii~~ of the US District Court for the Eastern District dismissed the case by the Alliance of Automobile Manufacturers. However, before these regulations may go into effect, the US EPA must grant California a waiver under the federal Clean Air Act, which ordinarily preempts state regulation of motor vehicle emission standards. ~~Following the issuance of the *Massachusetts vs. EPA* decision, the US EPA announced that it would decide whether to grant California a waiver by December 2007. On December 19, 2007, Stephen Johnson, the US EPA Administrator, denied the waiver citing the need for a national approach to reducing greenhouse gas emissions, the lack of a "need to meet~~

compelling and extraordinary conditions,” and the benefits to be achieved through the Energy Independence and Security Act of 2007.⁶⁴ The California Attorney General subsequently filed suit in January 2008 to overturn the administrator’s decision. Most recently, and the Obama Administration has issued an executive order requiring the US EPA to reconsider granting the waiver. A decision from the US EPA has not yet been announced. In light of the May 19, 2009 announcement by the Obama Administration establishing a target of 35.5 mpg by 2016, California—and states adopting California emissions standards—have agreed to defer to the proposed national standard through model year 2016 if granted a waiver by the US EPA to implement the Pavley standards. The 2016 endpoint of the two standards are similar, although the national standard ramps up slightly more slowly than required under the California standard.

5.4.2.36.3.2 Executive Order S-3-05

In June 2005, Governor Schwarzenegger established California’s GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. The Secretary of Cal/EPA is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. ~~Some of the agencies involved in the GHG reduction plan include Secretary of Business, Transportation and Housing Agency, Secretary of Department of Food and Agriculture, Secretary of Resources Agency, Chairperson of CARB, Chairperson of the Energy Commission, and the President of the Public Utilities Commission.~~ Representatives from these each of the aforementioned agencies comprise the Climate Action Team.

The Climate Action Team is responsible for implementing global warming emissions reduction programs. ~~In order to achieve these goals, the Climate Action Team is organized into two subgroups: the market-based options subgroup and the scenario analysis subgroup.~~ The Cal/EPA secretary is required to submit a biannual progress report from the Climate Action Team to the governor and state legislature disclosing the progress made toward GHG emission reduction targets. ~~In addition, another biannual report must be submitted illustrating and~~ the impacts of global warming on California’s water supply, public health, agriculture, the coastline, and forestry, and reporting possible mitigation and adaptation plans to combat these impacts. The Climate Action Team has fulfilled both of these report requirements through its March 2006 Climate Action Team Report to Governor Schwarzenegger and the legislature.⁶⁵

⁶⁴ Letter to Governor Arnold Schwarzenegger from Stephen L. Johnson, December 19, 2007.

⁶⁵ Climate Action Team, *Climate Action Team Report*.

The 2006 report contains recommendations and strategies to reduce emissions of GHGs and associated impacts. Some strategies currently being implemented by state agencies include CARB introducing vehicle climate change standards and diesel anti-idling measures, the Energy Commission implementing building and appliance efficiency standards, and the Cal/EPA implementing their green building initiative. The Climate Action Team also recommends future emission reduction strategies, such as using only low-GWP refrigerants in new vehicles, developing ethanol as an alternative fuel, reforestation, solar power initiatives for homes and businesses, and investor-owned utility energy efficiency programs. According to the report, implementation of current and future emission reduction strategies have the potential to achieve the goals set forth in Executive Order S-3-05. The report also describes potential impacts, as previously listed. A draft of the 2008 report was released on April 1, 2009 and the final version is still pending.~~Some strategies currently being implemented by state agencies include CARB introducing vehicle climate change standards and diesel anti idling measures, the Energy Commission implementing building and appliance efficiency standards, and the Cal/EPA implementing their green building initiative. The Climate Action Team also recommends future emission reduction strategies, such as using only low GWP refrigerants in new vehicles, developing ethanol as an alternative fuel, reforestation, solar power initiatives for homes and businesses, and investor owned utility energy efficiency programs. According to the report, implementation of current and future emission reduction strategies have the potential to achieve the goals set forth in Executive Order S 3 05.~~

5.4.2.36.3.3 **Assembly Bill 32**

In furtherance of the goals established in Executive Order S-3-05, the legislature enacted Assembly Bill 32 (AB 32, Nunez), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries with penalties for noncompliance.

CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. The foremost objective of CARB is to adopt regulations that require the reporting and verification of statewide GHG emissions. This program will be used to monitor and enforce compliance with the established standards. The first GHG emissions limit is equivalent to the 1990 levels, which are to be achieved by 2020. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted. In order to advise CARB, it must convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee. By January 2008, the first deadline for AB 32, a statewide cap for

2020 emissions based on 1990 levels and mandatory reporting rules for significant sources of GHGs must be adopted. The following year (January 2009), CARB must adopt a scoping plan indicating how reductions in significant GHG sources will be achieved through regulations, market mechanisms, and other actions.

The first action under AB 32 resulted in the adoption of a report listing early action greenhouse gas emission reduction measures on June 21, 2007. The early actions include three specific GHG control rules. On October 25, 2007, CARB approved an additional six early action GHG reduction measures under AB 32. These early action GHG reduction measures are to be adopted and enforced before January 1, 2010, along with 32 other climate-protecting measures CARB is developing between now and 2011. The report divides early actions into three categories:

- Group 1 - GHG rules for immediate adoption and implementation
- Group 2 - Several additional GHG measures under development
- Group 3 - Air pollution controls with potential climate co-benefits

The original three adopted early action regulations meeting the narrow legal definition of “discrete early action GHG reduction measures” include:

- ~~A~~ low-carbon fuel standard to reduce the “carbon intensity” of California fuels;
- ~~R~~eduction of refrigerant losses from motor vehicle air conditioning system maintenance to restrict the sale of “do-it-yourself” automotive refrigerants; and
- ~~I~~ncreased methane capture from landfills to require broader use of state-of-the-art methane capture technologies.

The additional six early action regulations adopted on October 25, 2007, also meeting the narrow legal definition of “discrete early action GHG reduction measures,” include:

- ~~R~~eduction of aerodynamic drag, and thereby fuel consumption, from existing trucks and trailers through retrofit technology;
- ~~R~~eduction of auxiliary engine emissions of docked ships by requiring port electrification;
- ~~R~~eduction of perfluorocarbons from the semiconductor industry;
- ~~R~~eduction of propellants in consumer products (e.g., aerosols, tire inflators, and dust removal products);
- ~~R~~equirements that all tune-up, smog check and oil change mechanics ensure proper tire inflation as part of overall service in order to maintain fuel efficiency; and

- Restriction on the use of sulfur hexafluoride (SF₆) from non-electricity sectors if viable alternatives are available.

As required under AB 32, on December 6, 2007, CARB approved the 1990 greenhouse gas emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 MMT CO₂e. The inventory revealed that in 1990 transportation, with 35 percent of the state's total emissions, was the largest single sector, followed by industrial emissions, 24 percent; imported electricity, 14 percent; in-state electricity generation, 11 percent; residential use, 7 percent; agriculture, 5 percent; and commercial uses, 3 percent (these figures represent the 1990 values, compared to **Table 5.4-4**, which represent 2004 values). AB 32 does not require individual sectors to meet their individual 1990 GHG emissions inventory; the total statewide emissions are required to meet the 1990 threshold by 2020.

In addition to the 1990 emissions inventory, CARB also adopted regulations requiring mandatory reporting of greenhouse gases for large facilities on December 6, 2007. The mandatory reporting regulations require annual reporting from the largest facilities in the state, which account for 94 percent of greenhouse gas emissions from industrial and commercial stationary sources in California. About 800 separate sources that fall under the new reporting rules and include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and industrial sources that emit over 25,000 tons of carbon dioxide each year from on-site stationary combustion sources. Transportation sources, which account for 38 percent of California's total greenhouse gas emissions, are not covered by these regulations but will continue to be tracked through existing means. Affected facilities will begin tracking their emissions in 2008, to be reported beginning in 2009 with a phase-in process to allow facilities to develop reporting systems and train personnel in data collection. Emissions for 2008 may be based on best available emission data. Beginning in 2010, however, emissions reports will be more rigorous and will be subject to third-party verification. Verification will take place annually or every three years, depending on the type of facility.

As indicated above, AB 32 requires CARB to adopt a scoping plan indicating how reductions in significant GHG sources will be achieved through regulations, market mechanisms, and other actions. CARB released the Climate Change Proposed Scoping Plan in October 2008, which contains an outline of the proposed state strategies to achieve the 2020 greenhouse gas emission limits. The CARB Governing Board approved the Proposed Scoping Plan on December 11, 2008. Key elements of the Scoping Plan include the following recommendations:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;

- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation.

Under the Scoping Plan, approximately 85 percent of the state's emissions are subject to a cap-and-trade program where covered sectors are placed under a declining emissions cap. The emissions cap incorporates a margin of safety whereas the 2020 emissions limit will still be achieved even in the event that uncapped sectors do not fully meet their anticipated emission reductions. Emissions reductions will be achieved through regulatory requirements and the option to reduce emissions further or purchase allowances to cover compliance obligations. It is expected that emission reduction from this cap-and-trade program will account for a large portion of the reductions required by AB 32.

Table 5.4-8, AB 32 Scoping Plan Measures, lists CARB's preliminary recommendations for achieving greenhouse gas reductions under AB 32 along with a brief description of the requirements and applicability.

Table 5.4-8
AB 32 Scoping Plan Measures

<u>Scoping Plan Measure</u>	<u>Description</u>
<u>SPM-1: California Cap-and-Trade Program linked to Western Climate Initiative</u>	<u>Implement a broad-based cap-and-trade program that links with other Western Climate Initiative Partner programs to create a regional market system. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms. Capped sectors include transportation, electricity, natural gas, and industry. Projected 2020 business-as-usual emissions are estimated at 512 MTCO₂e; preliminary 2020 emissions limit under cap-and-trade program are estimated at 365 MTCO₂e (29 percent reduction).</u>
<u>SPM-2: California Light-Duty Vehicle GHG Standards</u>	<u>Implement adopted Pavley standards and planned second phase of the program. AB 32 states that if the Pavley standards (AB 1493) do not remain in effect, CARB shall implement equivalent or greater alternative regulations to control mobile sources.</u>

<u>Scoping Plan Measure</u>	<u>Description</u>
<u>SPM-3: Energy Efficiency</u>	<u>Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts. The Proposed Scoping Plan considers green building standards as a framework to achieve reductions in other sectors, such as electricity.</u>
<u>SPM-4: Renewables Portfolio Standard</u>	<u>Achieve 33 percent Renewables Portfolio Standard by both investor-owned and publicly owned utilities.</u>
<u>SPM-5: Low Carbon Fuel Standard</u>	<u>Develop and adopt the Low Carbon Fuel Standard (LCFS). CARB identified the LCFS as a Discrete Early Action item and is developing a regulation for Board consideration in late 2008. In January 2007, Governor Schwarzenegger issued Executive Order S-1-07, which called for the reduction of the carbon intensity of California's transportation fuels by at least 10 percent by 2020.</u>
<u>SPM-6: Regional Transportation-Related Greenhouse Gas Targets</u>	<u>Develop regional greenhouse gas emissions reduction targets for passenger vehicles. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035 by September 30, 2010. SB 375 requires MPOs to prepare a sustainable communities strategy to reach the regional target provided by CARB.</u>
<u>SPM-7: Vehicle Efficiency Measures</u>	<u>Implement light-duty vehicle efficiency measures. CARB is pursuing fuel-efficient tire standards and measures to ensure properly inflated tires during vehicle servicing.</u>
<u>SPM-8: Goods Movement</u>	<u>Implement adopted regulations for port drayage trucks and the use of shore power for ships at berth. Improve efficiency in goods movement operations.</u>
<u>SPM-9: Million Solar Roofs Program</u>	<u>Install 3,000 MW of solar-electric capacity under California's existing solar programs.</u>
<u>SPM-10: Heavy/Medium-Duty Vehicles</u>	<u>Adopt heavy- and medium-duty vehicle and engine measures. Measures targeting aerodynamic efficiency, vehicle hybridization, and engine efficiency are recommended.</u>
<u>SPM-11: Industrial Emissions</u>	<u>Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.</u>
<u>SPM-12: High Speed Rail</u>	<u>Support implementation of a high-speed rail (HSR) system. This measure supports implementation of plans to construct and operate a HSR system between Northern and Southern California serving major metropolitan centers.</u>
<u>SPM-13: Green Building Strategy</u>	<u>Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.</u>
<u>SPM-14: High GWP Gases</u>	<u>Adopt measures to reduce high global warming potential gases. The Proposed Scoping Plan contains 6 measures to reduce high GWP gases from mobile sources, consumer products, stationary sources, and semiconductor manufacturing.</u>

<u>Scoping Plan Measure</u>	<u>Description</u>
<u>SPM-15: Recycling and Waste</u>	<u>Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.</u>
<u>SPM-16: Sustainable Forests</u>	<u>Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The federal government and California's Board of Forestry and Fire Protection has the regulatory authority to implement the Forest Practice Act to provide for sustainable management practices. This measure is expected to play a greater role in the 2050 goals.</u>
<u>SPM-17: Water</u>	<u>Continue efficiency programs and use cleaner energy sources to move water. California will also establish a public goods charge for funding investments in water efficiency that will lead to as yet undetermined reductions in greenhouse gases.</u>
<u>SPM-18: Agriculture</u>	<u>In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020. Increase efficiency and encourage use of agricultural biomass for sustainable energy production. CARB has begun research on nitrogen fertilizers and will explore opportunities for emission reductions.</u>

Source: California Air Resources Board, Climate Change Proposed Scoping Plan, (2008).

5.4.2.36.3.4 Senate Bill 1368

Governor Schwarzenegger, just two days after signing AB 32, reiterated California's commitment to reducing GHGs by signing Senate Bill 1368 (SB 1368, Perata) was signed into law two days after AB 32. SB 1368 requires the CEC and the California Public Utilities Commission (CPUC) to develop and adopt regulations for GHG emissions performance standards for the long-term procurement of electricity by local publicly owned utilities. The CEC ~~must~~ adopted its ~~the~~ standards on May 23, 2007 and the CPUC adopted its standard on January 25, 2007 ~~or before June 30, 2007~~. SB 1368 includes measures that protect energy customers from financial risks by allowing new capital investments in power plants with GHG emissions that are as low as or lower than new combined-cycle natural gas plants, requiring imported electricity from out-of-state to meet GHG performance standards in California, and requiring that the standards be developed and adopted in a public process.⁶⁶ ~~These standards must be consistent with the standards adopted by the Public Utilities Commission. This effort will help to protect energy customers from financial risks associated with investments in carbon intensive generation by allowing new capital investments in power plants whose GHG emissions are as low or lower than new combined cycle natural gas plants, by requiring imported electricity to meet GHG performance standards in California and requiring that the standards be developed and adopted in a public process.~~

⁶⁶ The adopted SB 1368 regulations are available on the California Energy Commission's website at: http://www.energy.ca.gov/emission_standards/regulations/index.html.

5.4.2.36.3.5 Executive Order S-1-07

On January 18, 2007, California ~~further solidified its dedication to reducing GHGs by setting~~ a new Low Carbon Fuel Standard (LCFS) for transportation fuels sold within the state. Executive Order S-1-07 sets a declining standard for GHG emissions measured in CO₂-equivalent gram per unit of fuel energy sold in California. The target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10 percent by 2020. The LCFS will apply to refiners, blenders, producers, and importers of transportation fuels and will use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods. CARB identified the LCFS as an early action item under AB 32 and adopted the regulation on April 23, 2009. the final regulation will be adopted and implemented by 2010. The Executive Order requires the Secretary of the CalEPA to coordinate with actions of the California Energy Commission (CEC), CARB, the University of California, and other agencies to develop a protocol to measure the "life cycle carbon intensity" of transportation fuels. CARB is anticipated to complete its review of the LCFS protocols no later than June 2007 and implement the regulatory process for the new standard by December 2008.

5.4.2.36.3.6 Senate Bill 97

In August 2007, as ~~part of the legislation accompanying the state budget negotiations,~~ the legislature enacted SB 97 (Dutton), which directs the Governor's Office of Planning and Research (OPR) to develop guidelines under ~~California Environmental Quality Act (CEQA)~~ for the mitigation of greenhouse gas emissions. ~~OPR is to develop proposed guidelines by July 1, 2009, and t~~The Resources Agency is directed to adopt the guidelines by January 1, 2010. OPR submitted its *Proposed Draft CEQA Guideline Amendments for Greenhouse Gas Emissions* to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency will conduct formal rulemaking in 2009. The proposed guideline amendments do not identify thresholds of significance or specific mitigation measures. Rather, the Guideline amendments are consistent with the existing CEQA framework allowing lead agencies discretion in making determinations based on substantial evidence. OPR has requested that CARB recommend a statewide method for setting thresholds of significance that lead agencies may adopt. ~~On June 19, 2008, OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities, should be identified and estimated. The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures that are necessary to reduce GHG emissions to a less than significant level. The advisory did not recommend a specific threshold of significance—either quantitative or qualitative—leaving this to the lead agency's judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable.~~

5.4.2.6.3.7 Senate Bill 375

The California Legislature passed SB 375 (Steinberg) on September 1, 2008, which requires CARB to set regional GHG reduction targets after consultation with local governments. The target must then be incorporated within that region's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy. SB 375 also requires each region's Regional Housing Needs Assessment (RHNA) to be adjusted based on the Sustainable Communities Strategy in its RTP. Additionally, SB 375 reforms the environmental review process to create incentives to implement the strategy, especially transit priority projects. The Governor signed SB 375 into law on September 30, 2008. CARB is not expected to issue regional GHG reduction targets to local governments until 2010.

5.4.2.6.3.8 California Climate Action Registry

The California Climate Action Registry (CCAR) is a private non-profit organization formed by the State of California and serves as a voluntary GHG registry to protect and promote early actions to reduce GHG emissions by organizations. The CCAR was formally established by law through SB 1771 (Sher) and SB 527 (Sher). The CCAR began with 23 Charter Members and currently has over 300 corporations, universities, cities and counties, government agencies and environment organizations voluntarily measuring, monitoring, and publicly reporting their GHG emissions using the CCAR protocols. The CCAR has published a General Reporting Protocol, as well as project- and industry-specific protocols for landfill activities, livestock activities, the cement sector, the power/utility sector, and the forest sector. The protocols provide the principles, approach, methodology, and procedures required for participation in the CCAR.

5.4.2.6.3.9 CARB Draft GHG Significance Thresholds

On October 24, 2008, CARB staff released its *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act*, which is a preliminary staff draft proposal for determining whether the emissions related to proposed new projects are significant impacts under CEQA. While the proposal is focused on helping lead agencies determine under which conditions a project may be found exempt from the preparation of an EIR, the proposal also provides a guide for establishing significance thresholds for projects for which EIRs would be prepared regardless of the project's climate change impact. According to this proposal, the threshold for determining whether a project's emissions are significant is not zero emissions, but must be a stringent performance-based threshold to meet the requirements of AB 32. If the project meets certain specific yet to be developed performance standards for several categories of emissions, including construction emissions, building

energy use, water use, solid waste, and transportation *and* the project emits no more than a certain to be determined amount of metric tons of carbon equivalents per year, the project's impact would not be significant. According to CARB, California Energy Commission Tier II building energy use standards are proposed to be used, which generally require a reduction in energy usage of 30 percent beyond Title 24 building code requirements. CARB has also proposed a 7,000 metric ton carbon dioxide equivalent (MTCO_{2e}) threshold for industrial projects, but has not yet proposed thresholds for residential and commercial projects. The annual threshold does not include emissions associated with construction- and transportation-related activities.

5.4.3 ENVIRONMENTAL IMPACTS

5.4.3.1 Site-Specific Emissions

The Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project site is currently developed with 136 apartment units and 198 boat spaces (Parcel 10R) and a surface parking lot (Parcel FF). Parcel 9U is an undeveloped vacant lot. All developed land uses would be removed in order to construct the proposed project.

Under existing conditions, the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project site generates the following air emissions summarized in **Table 5.4-89, Existing Project Site Air Emissions**.

**Table 5.4-98
Existing Project Site Air Emissions**

Emissions Source	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Summertime Emissions¹						
Operational (Mobile) Sources	132.77	13.67	13.93	0.10	16.41	3.20
Area Sources	4.01	7.88	1.37	0.00	0.01	0.01
Summertime Emission Totals:	136.78	21.55	15.30	0.10	16.42	3.21
Wintertime Emissions²						
Operational (Mobile) Sources	129.37	13.59	16.91	0.08	16.41	3.20
Area Sources	0.57	7.59	1.33	0.00	0.00	0.00
Wintertime Emission Totals:	129.94	21.18	18.24	0.08	16.41	3.20

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

¹ "Summertime Emissions" are representative of worst-case conditions that may occur during O₃ season (May 1 to October 31).

² "Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).

In addition, the existing sources generated GHG emissions, which were quantified using the methods described in **subsection 5.4.3.4.1.7**. Direct emissions of GHG due to fuel combustion in motor vehicles and building heating systems are associated with the existing uses. In addition, indirect GHG emissions are associated with the electrical demand, as well as with the electrical demand resulting from the provision of water to the existing uses, electrical demand and process emissions due to wastewater treatment, and decomposition of solid waste generated by the existing uses. The existing GHG emissions are summarized in **Table 5.4-109, Existing Operational Greenhouse Gas Emissions**.

Table 5.4-109
Existing Operational Greenhouse Gas Emissions

Emissions Source	Emissions in Metric Tons CO ₂ E Per Year
Direct GHG Emissions	
Operational (Mobile) Sources	1,651
Area Sources	284
Total Direct GHG Emissions	1,935
Indirect GHG Emissions	
Electrical Generation	380
Water Supply	8
Wastewater Treatment	20
Solid Waste	16
Total Indirect GHG Emissions	424
Existing GHG Emissions	2,359

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

5.4.3.2 Project Improvements

Implementation of the proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project would result in the development of 526 residential dwelling units, a 19-story building with 288 hotel and timeshare suites with an assortment of accessory patron- and visitor- serving uses, 174 private and between 7 and 11 public/transient boat spaces and a restored public wetland and upland park area. There are 136 existing apartments and 198 boat spaces presently on site. Therefore, completion of the proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project would result in a net increase of 390 apartment units, 288 hotel and timeshare suites, a net decrease of up to 17 boat spaces, a 0.47-acre public wetland and 0.99-acre upland park area.

The project would include the following sewer improvements to serve the new development on Parcel 10R: (a) the abandonment of approximately 650 linear feet of existing 10-inch sewer main and 240 linear

feet of an existing 8-inch line within the boundaries of Parcel 10R; (b) construction of approximately 500 linear feet within Marquesas Way and 160 linear feet within Via Marina of new 10-inch sewer to service the Parcel 10R development; and (c) construction of an additional 180 linear feet of new 10-inch line and approximately 710 linear of a new 8-inch sewer line within existing site boundaries of Parcel 10R. The emissions associated with this new sewer line are analyzed as part of the analysis of the Parcel 10R development that the new line would serve.

Parcel 10R would also include the installation of approximately 500 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances. Parcel FF would include the installation of approximately 170 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances. Installation of approximately 570 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances may occur during the construction of the Woodfin Suite Hotel and Timeshare Resort. Although this is not required for the Parcel 9U (North) project, the air quality analysis is included here in the event that installation occurs during construction on Parcel 9U.

5.4.3.3 Thresholds of Significance

New and modified projects will often affect regional air quality, both directly and indirectly. When determining the extent of a project's environmental impact and the significance of such impact, the project should be compared with established thresholds of significance. The following discusses the thresholds set forth by the SCAQMD for both construction and operational emissions that would be generated by the project.

5.4.3.3.1 Construction Emission Thresholds

The SCAQMD recommends that projects with construction-related emissions that exceed any of the following emissions thresholds should be considered significant:

- 550 pounds per day of CO;
- 75 pounds per day of VOC;
- 100 pounds per day of NO_x;
- 150 pounds per day of SO_x;
- 150 pounds per day of PM₁₀; and
- 55 pounds per day of PM_{2.5}.

In addition to the above listed emission-based thresholds, the SCAQMD also recommends that the potential impacts on ambient air concentrations due to construction emissions be evaluated. The SCAQMD has adopted localized significance thresholds for short-term concentrations of NO₂, CO, PM₁₀, and PM_{2.5}. The methodology to evaluate the localized impacts is presented in the SCAQMD's *Final Localized Significance Threshold Methodology (LST Methodology)*⁶⁷. This evaluation requires that anticipated ambient air concentrations, determined using a computer-based air quality dispersion model, be compared to localized significance thresholds for PM₁₀, PM_{2.5}, NO₂ and CO.⁶⁸ The LST Methodology is based on short-term standards for PM₁₀, PM_{2.5}, NO₂, and CO and does not require an evaluation of long-term concentrations or for other pollutants, such as SO₂ and lead. The Basin is well under the standards for SO₂ and lead and emissions of both pollutants from development of the project would result in only trivial emissions. Nonetheless, PM₁₀, PM_{2.5}, and NO₂ annual impacts are assessed utilizing methodology similar to that for the LST analysis.

The SCAQMD's concentration-based PM₁₀ threshold from its ~~Localized Significance Threshold Methodology (LST Methodology)~~⁶⁹ is a 24-hour average concentration of 10.4 micrograms per cubic meter (µg/m³) based on compliance with Rule 403 (Fugitive Dust). The threshold for PM_{2.5}, which is also 10.4 µg/m³, is intended to constrain emissions so as to aid in progress toward attainment of the ambient air quality standards.⁷⁰ The thresholds for NO₂ and CO are based on the maximum concentrations that occurred during the last three years (2005 through 2007) as shown in **Table 5.4-10, Localized Significance Thresholds for SRA 2**. These thresholds represent the allowable increase in NO₂ and CO concentrations above background levels in the vicinity of the project that would not cause or contribute to an exceedance of the relevant ambient air quality standards. The localized significance thresholds for SRA 2 (Northwest Coastal Los Angeles) along with the relevant CAAQS or NAAQS are shown in **Table 5.4-10**.

⁶⁷ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, July 2008.

⁶⁸ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, ~~July~~ June 2008. This methodology includes "lookup tables" that can be used to determine the maximum allowable emissions that would satisfy the localized significance criteria; however, these tables may be used only for project sites less than 5 acres in overall area.

⁶⁹ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, ~~July~~ June 2008.

⁷⁰ South Coast Air Quality Management District, *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds*, October 2006.

Table 5.4-101
Localized Significance Thresholds for SRA 2

Pollutant	Averaging Period	CAAQS/NAAQS ¹		Peak Conc.	LST Criteria ²	
		µg/m ³	ppm	in ppm	µg/m ³	ppm
Respirable Particulate Matter (PM ₁₀)	24 hours	50	NA	NA	10.4	NA
Fine Particulate Matter (PM _{2.5})	24 hours	35	NA	NA	10.4	NA
Nitrogen Dioxide (NO ₂)	1 hour	338 339	0.18	0.08	188	0.10
Carbon Monoxide (CO)	1 hour	23,000	20	3	19,454	17
Carbon Monoxide (CO)	8 hours	10,000	9.0	2.1	7,896	6.9

Source: South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2008.

¹ California has not adopted a 24-hour AAQS for PM_{2.5}; the 24-hour PM_{2.5} AAQS shown is the national standard. All other standards are the California standards.

² LST Criteria for NO₂ and CO are the difference between CAAQS and the Peak Concentrations during the last three years (see Table 5.4-2).

Although the LST Methodology does not require an evaluation of long-term concentrations for NO₂, PM₁₀ and PM_{2.5}, CARB has established annual ambient air quality standards for these criteria pollutants. Annual concentration impacts of NO₂, PM₁₀, and PM_{2.5} are assessed using the same methodology used in the LST analysis. Table 5.4-12, Annual Concentration Thresholds for SRA 2, lists the thresholds for the annual impacts from project construction. As noted in the table, the area already exceeds the PM₁₀ and PM_{2.5} state annual standards.

Table 5.4-12
Annual Concentration Thresholds for SRA 2

Pollutant	Averaging Period	CAAQS		Peak Conc.	Annual Criteria ¹	
		µg/m ³	ppm	µg/m ³	µg/m ³	ppm
Respirable Particulate Matter (PM ₁₀)	Annual	20	NA	27.7	4.2	NA
Fine Particulate Matter (PM _{2.5})	Annual	12	NA	18.1	4.2	NA
Nitrogen Dioxide (NO ₂)	Annual	57	0.030	38	19	0.010

¹ The annual Criteria for NO₂ is the difference between CAAQS and the Peak Concentrations during the last three years (see Table 5.4-2). Because the region already exceeds the standard, the annual criteria for PM₁₀ was determined by multiplying the 24-hour threshold by the ratio of the 24-hour and annual state standards (20/50). This result in a criteria of 4.2 µg/m³. The state does not have a 24-hour PM_{2.5} standard; therefore, the PM_{2.5} criteria was set at the same threshold as PM₁₀, similar to the LST thresholds.

5.4.3.3.2 Operational Emission Thresholds

The SCAQMD has recommended two types of air pollution thresholds to assist lead agencies in determining whether or not the operational phase of a project's development would be significant. These are identified in the following discussion under **Emission Significance Thresholds** and **Other Indicators of Potential Air Quality Impacts**. The SCAQMD recommends that a project's impacts be considered significant if either of these thresholds are exceeded.

5.4.3.3.2.1 Emission Significance Thresholds

The SCAQMD has established these thresholds, in part based on Section 182(e) of the Federal CAA, which identifies 10 tons a year of VOC or NO_x as the significance threshold for stationary sources of emissions in extreme nonattainment areas for O₃.⁷¹ As discussed earlier, VOC and NO_x undergo photochemical reactions in sunlight to form O₃. The basin was an extreme nonattainment area for O₃ at the time the significance thresholds were established. This emission threshold has been converted to a pound-per-day threshold for the operational phase of a project. Thresholds for other emissions have been identified based on regulatory limits set by the SCAQMD. Because they are converted from a CAA threshold, the SCAQMD believes that these thresholds are based on scientific and factual data.⁷² Therefore, the SCAQMD recommends that the following thresholds be used by lead agencies in making a determination of operation-related project significance:

- 550 pounds per day of CO;
- 55 pounds per day of VOC;
- 55 pounds per day of NO_x;
- 150 pounds per day of SO_x;
- 150 pounds per day of PM₁₀; and
- 55 pounds per day of PM_{2.5}.

5.4.3.3.2.2 Other Indicators of Potential Air Quality Impacts

The SCAQMD recommends that projects meeting any of the following criteria also be considered to have significant air quality impacts:

⁷¹ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 6-1.

⁷² South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 6-1.

- The project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.
- The project could result in population increases within an area, which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.
- The project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot.
- The project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.
- The project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety.
- The project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list.
- The project could be occupied by sensitive receptors within 0.25 mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401.
- The project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of 10 in one million.

An evolving air quality issue is the impact of a project's greenhouse gas emissions on global climate. To date, no state or local air quality agencies have established numerical or qualitative thresholds for assessing this issue. Nonetheless, the project's contribution of greenhouse gases will be estimated to the extent feasible, and this issue will be evaluated.

The following discussion reviews the project's potential impacts relative to each of the recommended significance criteria identified above.

5.4.3.3.2.3 Wind Impacts

The certified Marina del Rey Land Use Plan restricts development of structures that would significantly impede wind access to the boats in Marina del Rey. Therefore, if the proposed project significantly affects wind patterns in the small-craft harbor to the disadvantage of boat traffic, it would result in a significant wind impact. This criterion will also be evaluated as a whole and for each project component.

5.4.3.4 Impact Analysis

The applicable thresholds of significance are listed below followed by analysis of the significance of any potential impacts. Mitigation measures are also identified which would reduce or avoid potentially significant adverse impacts, if applicable.

5.4.3.4.1 Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

5.4.3.4.1.1 Threshold: The project will generate air pollutant quantities in excess of established SCAQMD emissions thresholds.

Analysis: Development of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project would generate air emissions from a wide variety of stationary, area, and mobile sources. Fugitive dust (PM₁₀ and PM_{2.5}) would be generated by on-site construction activities. Once the proposed uses are occupied, emissions would be generated by stationary and area sources such as water and space heaters, landscape maintenance equipment and consumer products. Stationary and source emissions could also result from the operation of certain types of commercial business, such as restaurants, within the project site. Mobile source emissions would be generated by motor vehicle travel associated with construction activities and occupancy of the proposed development. An assessment of construction and operational emissions are presented below based on the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook*.

Demolition, Excavation/Grading and Construction Impacts: During development of the proposed project, criteria pollutant emissions would be generated due to heavy-duty construction equipment, grading activities, construction-worker trips, and construction material vendor trips. In addition, VOC emissions would consist of evaporative emissions from architectural coatings, asphalt paving, and building materials (i.e., paints, solvents, roofing materials, etc.). This analysis assumed that only readily available surface-coating materials meeting all current SCAQMD rules would be used to paint the surfaces of the proposed structures (materials not meeting SCAQMD rules are not available for sale or use within the basin). As discussed below, the emissions associated with demolition, excavation and grading, and construction of all the project components would exceed the SCAQMD emission thresholds of significance for NO_x, as well as cause localized significant ambient air quality impacts for PM₁₀, PM_{2.5}, and NO₂. If only one of these project components were constructed at a time, the emissions would still exceed these significance thresholds, and the construction phase would cause significant short-term air quality impacts. **Table 5.4-13~~4~~, Estimated Unmitigated Demolition, Excavation/Grading, and Construction Emissions – Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project**, identifies maximum daily emissions occurring in a construction year for each development parcel based on information provided by the project applicants and default construction

values generated by URBEMIS2007 Version 9.2.4. URBEMIS2007 is a land use and transportation model that estimates construction equipment and emissions for development projects. Emissions associated with the sewer line and water line construction are included in the analysis. It should be noted that the maximum daily emissions from each parcel would not necessarily overlap and **Table 5.4-143** provides a conservative estimate of project-related construction emissions.

Table 5.4-131
Estimated Unmitigated Demolition, Excavation/Grading and Construction Emissions
Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

Construction Year/Parcel	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
<u>2009-2011</u>						
Parcel 10R	<u>76.954471</u>	<u>12.25938</u>	<u>90.958871</u>	<u>0.065</u>	<u>27.714173</u>	<u>5.081196</u>
Parcel FF	<u>33.47</u>	<u>7.05</u>	<u>58.92</u>	<u>0.02</u>	<u>11.62</u>	<u>4.85</u>
			<u>100.45413</u>			
Woodfin Suite Hotel	<u>65.487145</u>	<u>13.242001</u>	<u>21</u>	<u>0.012</u>	<u>0.001381</u>	<u>5.33598</u>
Wetland Park	<u>9.88</u>	<u>2.22</u>	<u>18.66</u>	<u>0.00</u>	<u>0.00</u>	<u>0.86</u>
	<u>185.78116</u>		<u>268.98201</u>			
Maximum 2009-2011 Emissions	<u>16</u>	<u>34.762939</u>	<u>92</u>	<u>0.079</u>	<u>39.335554</u>	<u>16.121794</u>
<u>2010-2012</u>						
			<u>68.971126</u>			
Parcel 10R	<u>63.178078</u>	<u>14.531495</u>	<u>8</u>	<u>0.06007</u>	<u>4.054772</u>	<u>3.581381</u>
Parcel FF	<u>32.84711</u>	<u>6.59151</u>	<u>54.611175</u>	<u>0.02000</u>	<u>11.92151</u>	<u>4.57078</u>
Woodfin Suite Hotel	<u>51.855683</u>	<u>25.591940</u>	<u>79.049016</u>	<u>0.01001</u>	<u>4.10476</u>	<u>3.73434</u>
Wetland Park	<u>15.161621</u>	<u>2.94336</u>	<u>19.582239</u>	<u>0.00001</u>	<u>1.45165</u>	<u>1.32150</u>
	<u>163.02160</u>		<u>222.20236</u>			
Maximum 2010-2012 Emissions	<u>93</u>	<u>49.653922</u>	<u>98</u>	<u>0.09009</u>	<u>21.525564</u>	<u>13.202043</u>
<u>2011-2013</u>						
Parcel 10R	<u>60.226640</u>	<u>13.901415</u>	<u>63.287527</u>	<u>0.06</u>	<u>3.63437</u>	<u>3.20387</u>
Parcel FF	<u>22.783426</u>	<u>6.11684</u>	<u>31.985285</u>	<u>0.02</u>	<u>1.531369</u>	<u>1.37439</u>
	<u>83.001006</u>		<u>95.261281</u>			
Maximum 2011-2013 Emissions	<u>6</u>	<u>20.012099</u>	<u>2</u>	<u>0.08</u>	<u>5.161806</u>	<u>4.57826</u>
<u>2012</u>						
Parcel 10R	<u>63.15</u>	<u>13.58</u>	<u>68.97</u>	<u>0.06</u>	<u>4.05</u>	<u>3.58</u>
Parcel FF	<u>23.82</u>	<u>6.61</u>	<u>34.74</u>	<u>0.02</u>	<u>1.71</u>	<u>1.53</u>
Maximum 2012 Emissions	<u>86.97</u>	<u>20.19</u>	<u>103.71</u>	<u>0.08</u>	<u>5.76</u>	<u>5.11</u>
	<u>185.78160</u>		<u>268.98236</u>			
Maximum Emissions in Any Year	<u>93</u>	<u>49.653922</u>	<u>98</u>	<u>0.09009</u>	<u>39.335564</u>	<u>16.122043</u>
SCAQMD Thresholds	550	75	100	150	150	55
Exceeds Thresholds?	NO	NO	YES	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

Note: Emissions for each parcel represent the maximum daily emissions occurring in the particular construction year.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

As shown, the recommended threshold of significance for NO_x would be exceeded during 2011 and 2012 each year of construction activities primarily due to the operation of heavy-duty construction equipment. Nevertheless, Other construction-related sources such as construction worker trips and vendor trips would also generate NO_x emissions. As shown in **Table 5.4-143**, no other mass emission significance thresholds for other criteria pollutants are not is anticipated to be exceeded during construction of the proposed project; however, construction of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort would cause significant impacts for NO_x.

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: An analysis of the impacts of the emissions resulting from the concurrent construction of the Neptune Marina Parcel 10R, the Neptune Marina Parcel FF, Woodfin Suite Hotel and Timeshare Resort Project, and Restored Wetland and Upland Buffer on ambient concentrations of PM₁₀, PM_{2.5}, NO₂ and CO was conducted. This analysis determined the ambient air quality impacts due to construction activities on the day with the highest estimated daily mass emission rates. For this analysis, a more detailed evaluation of the construction activities (e.g., demolition, grading, building construction, and/or asphalt paving) that would occur simultaneously was performed. The methodology and results are described in detail in **Appendix 5.4**. The results of the dispersion modeling analysis are compared to the localized significance thresholds in **Table 5.4-124, Localized Significance Thresholds Analysis – Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project**. As shown, the construction of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort would cause localized significant impacts for PM₁₀, PM_{2.5}, and NO₂.

Table 5.4-142
Localized Significance Thresholds Analysis
Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

Pollutant	Averaging Period	Modeling Results		LST Criteria		Exceeds Threshold?
		µg/m ³	ppm	µg/m ³	ppm	
Respirable Particulate Matter (PM ₁₀)	24 hours	<u>34.0175</u> 8	NA	10.4	NA	YES
<u>Respirable Particulate Matter (PM₁₀)</u>	<u>Annual</u>	<u>2.73</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Fine Particulate Matter (PM _{2.5})	24 hours	<u>16.3326</u> 4	NA	10.4	NA	YES
<u>Fine Particulate Matter (PM_{2.5})</u>	<u>Annual</u>	<u>1.40</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Nitrogen Dioxide (NO ₂)	1 hour	<u>228351</u>	0.192	188	0.10	YES
<u>Nitrogen Dioxide (NO₂)</u>	<u>Annual</u>	<u>2.09</u>	<u>0.00</u>	<u>19</u>	<u>0.01</u>	<u>NO</u>
Carbon Monoxide (CO)	1 hour	<u>1,7126,3</u> 73	1505.6	19,454	17	NO
Carbon Monoxide (CO)	8 hours	<u>4513,398</u>	<u>0.393,0</u>	7,896	6.9	NO

Source: South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2008.

¹ LST Criteria for NO₂ and CO are the difference between CAAQS and the Peak Concentrations during the last three years (see **Table 5.4-2**).

Project construction would involve the demolition and removal of existing structures located on the Parcel 10R site. Demolition of the existing structures would be a potential hazard if the buildings contained asbestos fibers. The existing buildings were constructed in the 1960s. Typically, buildings built before 1978 are considered to have a higher probability of containing asbestos fibers; however, under SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities), all buildings must be properly inspected for the presence of asbestos. Demolition of all existing structures must comply with the precautionary requirements specified in Rule 1403. All structures must be stabilized and removed in accordance with applicable regulations including Rule 1403. This rule is intended to limit asbestos emissions from demolition or renovation of structures and the associated disturbance of asbestos-containing waste material generated or handled during these activities. The rule addresses the US EPA NESHAP and provides additional requirements to cover non-NESHAP areas. The rule requires that the SCAQMD be notified before any demolition or renovation activity occurs. This notification includes a description of the structures and methods utilized to determine the presence or absence of asbestos. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity. As part of project implementation, the project applicant must comply with the requirements of Rule 1403. Project compliance with Rule 1403 would ensure that asbestos-containing materials would be removed and disposed of appropriately. With adherence to this applicable regulation, the potential for significant adverse health impacts would be reduced to less than significant level.

Operational Impacts; Daily Emissions: Operational emissions would be generated by area, mobile, and possibly stationary, sources as a result of normal day-to-day activities at the project site. Although the development of the 1.46-acre Restored Wetland and Upland Buffer and between 7 and 11 public/transient boat spaces would only generate approximately 50 vehicle trips per day, the operational emissions generated by these components were included in this analysis as a conservative estimate. Project area and mobile source emissions from Neptune Marina Parcel 10R, the Neptune Marina Parcel FF, Woodfin Suite Hotel and Timeshare Resort Project, and the Restored Wetland and Upland Buffer as estimated using URBEMIS2007 for the operational year 2013⁷³ (project buildout year) are shown in **Table 5.4-135, Estimated Operational Emissions without Mitigation – Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project**. The values shown are the total of those values in **Table 5.4-220, Estimated Operational Emissions without Mitigation – Neptune Marina Parcel 10R, Table 5.4-268, Estimated Operational Emissions without Mitigation – Neptune Marina Parcel FF, Table 5.4-324, Estimated Operational Emissions without Mitigation – Woodfin Suite Hotel and Timeshare Resort, and Table 5.4-3840, Estimated Operational Emissions Without Mitigation –**

⁷³ Although some components of the proposed project would be completed prior to 2013 (e.g., Woodfin Suite Hotel and Timeshare Resort would be built out by 2011), all components of the proposed project would be fully operational in 2013.

Restored Wetland and Upland Buffer. Due to the demolition of the existing apartments on the site on which the Neptune Marina Parcel 10R would be constructed, the emissions associated with the existing land uses and the net emissions are also shown in **Table 5.4-135** and **Table 5.4-202**.

Table 5.4-135
Estimated Operational Emissions without Mitigation
Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

Emissions Source	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Summertime Emissions¹						
Operational (Mobile) Sources	326.64	30.09	35.67	0.42	69.00	13.40
Area Sources	11.88	29.89	7.56	0.00	0.05	0.05
Summertime Emission Totals:	338.52	59.98	43.23	0.42	69.05	13.45
Emissions Due To Existing Land Uses:	136.78	21.55	15.30	0.10	16.42	3.21
Net Increase In Emissions	201.74	38.43	27.93	0.32	52.63	10.24
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO
Wintertime Emissions²						
Operational (Mobile) Sources	310.39	30.00	42.99	0.34	69.00	13.40
Area Sources	4.14	29.28	7.46	0.00	0.01	0.01
Wintertime Emission Totals:	314.53	59.28	50.45	0.34	69.01	13.41
Emissions Due To Existing Land Uses:	129.94	21.18	18.24	0.08	16.41	3.20
Net Emissions	184.59	38.10	32.21	0.26	52.60	10.21
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

¹ "Summertime Emissions" are representative of worst-case conditions that may occur during the O₃ season (May 1 to October 31).

² "Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).

As shown in **Table 5.4-153**, the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project at full buildout and operation would not generate a net increase in emissions that would exceed SCAQMD recommended thresholds for any criteria pollutants. Therefore, the operational emissions of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project would not result in a significant air quality impact.

Operational Impacts; Wind: Rowan Williams Davies & Irwin, Inc. (RWDI) prepared a wind study for the proposed projects to assess the project's development and/or building placement on wind patterns within the marina, loss of surface winds used by birds and sailboats and general air circulation (this report is included in **Appendix 5.4** in its entirety). The study concluded:

From the results of this wind study, it has been concluded that the proposed Neptune Marina will produce similar wind conditions over a majority of the areas of Marina del Rey. There will be localized areas of altered wind directions and speeds at the west end of Basins B and C. The change in wind conditions noted at the west end of Basins B and C is assumed not to be significant as boats would be under power at this location in the marina. The overall wind conditions predicted with the proposed and expected future developments are similar to those presently experienced in and around the marina and, therefore, the general air circulation patterns and the use of surface winds by birds will not be affected.

Operational Impacts; Additional Indicators: As previously discussed, the SCAQMD lists criteria indicating when a project may create potential air quality impacts. These criteria are listed below along with an analysis of whether or not the project meets any of them. If a project meets any one of the criteria, project air quality impacts would be significant relative to that criterion.

5.4.3.4.1.2 Threshold: The project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.

Analysis: SCAQMD's *CEQA Air Quality Handbook* indicates that an air quality modeling analysis would need to be performed to identify the project's impact on ambient air quality.⁷⁴ In order for a project to be found consistent with applicable AQMP, the analysis would have to demonstrate that the project's emissions would not increase the frequency or the severity of existing air quality violations, or contribute to a new violation.⁷⁵ The CO analysis for traffic emissions described below assesses the potential ambient air quality impacts with respect to this pollutant. Furthermore, URBEMIS2007 was used to calculate project emissions for comparison with thresholds addressing regional significance. The estimated operational emissions due to proposed project are found to be less than significant. Hence, the project is not expected to violate ambient air quality standards or contribute to an existing or projected air quality violation.

⁷⁴ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-3.

⁷⁵ South Coast Air Quality Management District. *CEQA Air Quality Handbook*. p. 12-3.

5.4.3.4.1.3 Threshold: The project could result in population increases within an area, which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.

Analysis: As discussed earlier in this analysis, the 2007 AQMP is designed to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to achieve the federal 8-hour ozone standard by 2021⁷⁶ and to minimize the impact on the economy. Projects that are considered to be consistent with the AQMP do not interfere with attainment and do not contribute to the exceedance of an existing air quality violation because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended thresholds. The following analysis discusses the project's consistency with the AQMP.

Projects that are consistent with the projections of population forecasts identified in the Growth Management Chapter of the *Regional Comprehensive Plan and Guide* (RCPG) are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

As discussed in **Section 5.16, Population and Housing**, the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project is considered to be consistent with the future population and employment figures projected for the site's census tract. The project would not increase population over that which has been planned for the area, would be consistent with the AQMP forecasts for this area, would be considered consistent with the air quality-related regional plans and should not jeopardize attainment of state and federal ambient air quality standards in the basin.

Another measurement tool in determining AQMP consistency is to determine how a project accommodates the expected increase in population and employment. Generally, if a project is planned in a way that results in the minimization of vehicle miles traveled (VMT) both within the project and in the community in which it is located and consequently the minimization of air pollutant emissions, that project is consistent with the AQMP.⁷⁷

The nature of the project and its location within the Marina del Rey and surrounding urban areas with supporting commercial and office uses would minimize the need for or distance of some automobile

⁷⁶ The 2007 AQMP has determined that the basin will still exceed the federal 8-hour ozone standard in 2021 even with implementation of 2007 AQMP control measures.

⁷⁷ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-5.

trips, thereby, reducing automotive emissions from such trips. This type of development is consistent with the goals of the AQMP for reducing motor vehicle emissions. In addition, the project site is located in proximity to existing job centers that provide employment opportunities to many Marina del Rey residents. With these job centers, many local residents do not have to commute to distant employment centers. The project site is also linked to various employment, shopping and recreation areas throughout the Los Angeles Basin through the local transit system. Use of these facilities could reduce the need for some motor vehicle trips. As a result of reduced commutes and other vehicle trips, VMT and, consequently, air pollutant emissions could be further reduced.

5.4.3.4.1.4 Threshold: The project could generate vehicle trips that cause a CO hotspot or the project could be occupied by sensitive receptors that are exposed to a CO hotspot.

Analysis: Motor vehicles are the primary source of pollutants within the project vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient CO concentrations exceed state and/or federal standards are termed CO “hotspots.” There are no notable stationary sources generating CO emissions in the local area; thus, local area CO emissions result primarily from vehicles traveling along local roadways.

Section 9.4 of the *CEQA Air Quality Handbook* identifies CO as a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots. Sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large.⁷⁸ The SCAQMD identifies the following as sensitive receptors: long-term healthcare facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers and athletic facilities.⁷⁹

This impact analysis evaluates ten intersections located in the project study area for the presence of existing CO hotspots. These intersections, identified by the project traffic engineer as those that are affected adversely by project-related traffic, include the following:

1. Admiralty Way/Mindanao Way
2. Lincoln Boulevard/Fiji Way
3. Lincoln Boulevard/Marina Expressway (SR-90)
4. Lincoln Boulevard/Mindanao Way

⁷⁸ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 5-1.

⁷⁹ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 5-7.

5. Lincoln Boulevard/Washington Boulevard
6. Marina Expressway (SR-90) eastbound/Mindanao Way
7. Palawan Way/Admiralty Way
8. Palawan Way/Washington Boulevard
9. Via Marina/Admiralty Way
10. Via Marina/Washington Boulevard

Maximum existing CO concentrations for project study intersections were calculated for peak hour traffic volumes at each of these intersections using CALINE4, a dispersion model for predicting CO concentrations near roadways. For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening model developed by the Bay Area Air Quality Management District (BAAQMD). The simplified model is intended as a screening analysis that identifies a potential CO hotspot. If a hotspot is identified, the complete CALINE4 model is then utilized to precisely determine the CO concentrations predicted at the intersections in question. This methodology assumes worst-case conditions (i.e., wind direction is parallel to the primary roadway and 90 degrees to the secondary road, wind speed of less than 1 meter per second and extreme atmospheric stability) and provides a screening of maximum, worst-case, CO concentrations. The simplified approach is acceptable to the SCAQMD as long as it is used consistently with the *BAAQMD Guidelines*.⁸⁰

The simplified CALINE4 screening procedure was used to predict future CO concentrations at 0 and 25 feet from the intersections in the study area for future traffic and the proposed project without the cumulative related projects. The CO concentrations shown on the following page in **Table 5.4-164, Carbon Monoxide Concentrations Future with Project Traffic (2013)**, are a result of ambient traffic volume growth in 2013 and traffic generated by the proposed project (i.e., Parcels 10R, FF, and Woodfin Suite Hotel and Timeshare Resort and Wetland Park). Ambient traffic volumes for the analysis year, 2013, were estimated by applying an annual traffic growth rate factor of 0.6 to existing traffic volumes.⁸¹

⁸⁰ Personal communication with Steve Smith, Program Supervisor, South Coast Air Quality Management District, Diamond Bar, California, 12 May 2004.

⁸¹ Crain & Associates, *Traffic Analysis for a Proposed 526-Unit Residential Development, 288-Room Hotel/Timeshare Resort, and 1.46-Acre Public Park on Parcels 10R, FF and 9U in Marina del Rey* (Los Angeles, California: Crain & Associates, December 2007).

Table 5.4-164
Carbon Monoxide Concentrations
Future with Project Traffic (2013)
(parts per million)

Intersection	LOS	0 Feet		25 Feet	
		1-Hour ¹	8-Hour ²	1-Hour ¹	8-Hour ²
Admiralty Way & Mindanao Way	D	7.4	4.3	6.5	3.7
Lincoln Blvd. & Fiji Way	C	8.4	5.0	7.3	4.2
Lincoln Blvd. & Marina Expressway (SR-90)	C	7.8	4.6	6.8	3.9
Lincoln Blvd. & Mindanao Way	E	7.7	4.5	6.8	3.9
Lincoln Blvd. & Washington Blvd.	F	9.0	5.4	7.7	4.5
Marina Expressway (SR-90 EB) & Mindanao Way	C	6.5	3.6	5.9	3.3
Palawan Way & Admiralty Way	B	7.2	4.1	6.3	3.6
Palawan Way & Washington Blvd.	C	6.8	3.9	6.1	3.4
Via Marina & Admiralty Way	D	5.5	3.0	5.4	2.9
Via Marina & Washington Blvd.	D	7.1	4.1	6.2	3.5

Source: Impact Sciences, Inc. The CO concentration calculations are provided in **Appendix 5.4**.

Note: Not all intersections would operate at a level of service (LOS) that could generate a CO hotspot (i.e., D or worse). However, for consistency purposes all ten intersections that were adversely affected during the "Cumulative with Project" scenario were analyzed for a potential CO hotspot.

¹ State standard is 20 parts per million. Federal standard is 35 parts per million.

² State standard is 9.0 parts per million. Federal standard is 9 parts per million.

As shown, the state and federal 1- and 8-hour CO standards would not be exceeded at any of the modeled intersections at project buildout during future conditions with the contribution of project-related traffic. Therefore, CO hotspots are not predicted to occur near these intersections with the contribution of ambient growth in the area and the proposed project's traffic. The impact of the proposed project's traffic to these intersections would be considered less than significant.

As was done to assess CO concentrations with the future and proposed project traffic, the simplified CALINE4 screening procedure was also used to predict future CO concentrations at 0 and 25 feet from the intersections in the study area for cumulative related projects and the proposed project. If it can be demonstrated that no CO hotspots would occur even with all anticipated traffic, then the project itself would not result in exceedances of the CO standards. The results of the screening model for the project study area are shown in **Table 5.4-175, Carbon Monoxide Concentrations Cumulative with Project Traffic (2013)**. The values in this table reflect the traffic impact on ambient air quality from 41 related projects (i.e., cumulative projects), ambient growth in the area, and from the proposed Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project as predicted in the traffic

impact analysis for the project.⁸² It should be noted that although ambient traffic growth is anticipated to account for all traffic increases in the area, traffic from related projects were also added for the purpose of a conservative analysis.⁸³ Project traffic volumes would diminish outside of the project study area, thereby reducing the potential for project-related CO hotspots outside the study area.

Table 5.4-175
Carbon Monoxide Concentrations
Cumulative with Project Traffic (2013)
(parts per million)

Intersection	LOS	0 Feet		25 Feet	
		1-Hour ¹	8-Hour ²	1-Hour ¹	8-Hour ²
Admiralty Way & Mindanao Way	F	7.8	4.6	6.7	3.8
Lincoln Blvd. & Fiji Way	E	8.9	5.4	7.6	4.4
Lincoln Blvd. & Marina Expressway (SR-90)	D	8.2	4.9	7.1	4.1
Lincoln Blvd. & Mindanao Way	F	8.1	4.8	7.1	4.1
Lincoln Blvd. & Washington Blvd.	F	9.5	5.8	8.0	4.7
Marina Expressway (SR-90 EB) & Mindanao Way	D	6.7	3.8	6.0	3.4
Palawan Way & Admiralty Way	D	7.5	4.4	6.5	3.7
Palawan Way & Washington Blvd.	E	7.1	4.1	6.3	3.5
Via Marina & Admiralty Way	E	5.5	3.0	5.4	2.9
Via Marina & Washington Blvd.	E	7.2	4.2	6.4	3.6

Source: Impact Sciences, Inc. The CO concentration calculations are provided in Appendix 5.4.

¹ State standard is 20 parts per million. Federal standard is 35 parts per million.

² State standard is 9.0 parts per million. Federal standard is 9 parts per million.

As shown, the state and federal 1- and 8-hour CO standards would not be exceeded at any of the modeled intersections at project buildout with related projects' traffic and ambient traffic growth. Therefore, CO hotspots are not predicted to occur near these intersections in the future with the contribution of related projects, and the proposed project traffic-related CO at these intersections would not be considered significant. Furthermore, the proposed project would not expose any sensitive receptors to substantial CO concentrations.

It should be noted that the project would not be wholly responsible for all of the traffic at these intersections; rather, at most intersections, the project would contribute only a fraction of the traffic. The

⁸² Crain & Associates, *Traffic Analysis for a Proposed 526-Unit Residential Development, 288-Room Hotel/Timeshare Resort, and 1.46-Acre Public Park on Parcels 10R, FF and 9U in Marina del Rey* (Los Angeles, California: Crain & Associates, December 2007).

⁸³ Crain & Associates, *Traffic Analysis for a Proposed 526-Unit Residential Development, 288-Room Hotel/Timeshare Resort, and 1.46-Acre Public Park on Parcels 10R, FF and 9U in Marina del Rey* (Los Angeles, California: Crain & Associates, December 2007).

remaining traffic would consist of existing (ambient) traffic, ambient growth in the area, and traffic from related projects that would be developed and on line by project buildout, all of which would contribute to the carbon monoxide concentrations at these intersections (see Table 8 of the project traffic study in **Appendix 5.7** for a listing of the projects that have been included in the project buildout year traffic modeling by Crain & Associates).

5.4.3.4.1.5 Threshold: The project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

Analysis: Residential uses associated with the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project are not expected to be a source of odors. The adjacent land uses are such that the project residents would not be subjected to objectionable odors from any surrounding land use. Consequently, no significant impacts from such odors are anticipated.

5.4.3.4.1.6 Threshold: The project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;

Threshold: The project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list;

Threshold: The project could be occupied by sensitive receptors within 0.25 mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

Threshold: The project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million.

Analysis: Construction of the project would not result in an accidental release of hazardous materials on site because any lead-based paint and asbestos containing materials would be abated and disposed of in accordance with SCAQMD and other local and state regulations. Construction of the project would result in emissions of diesel particulate matter (DPM), which has been designated a toxic air contaminant (TAC) by CARB. Typically, cancer risk is assessed for long-term exposure durations (typically 70 years). Construction of the project would result in much shorter-term DPM emissions, however, and exposure would be for less than three years. According to the Office of Environmental Health Hazard Assessment

(OEHHA), high short-term exposures (i.e., less than a maximum theoretical project life of 70 years) are not necessarily equivalent to low longer-term exposures:⁸⁴

[A]s the exposure duration decreases the uncertainties introduced by applying cancer potency factors derived from very long term studies increases. Short-term high exposures are not necessarily equivalent to longer-term lower exposures even when the total dose is the same. OEHHA therefore does not support the use of current cancer potency factor to evaluate cancer risk for exposures of less than 9 years.

Construction of the project would result in maximum on-site DPM emissions of 12.75 pounds per day in 2011; 11.16 pounds per day in 2012 ; and 4.31 pounds per day in 2013. These emissions would occur at various locations throughout the entire project site. Because construction of the project would result in a maximum exposure duration of DPM for just under three years and that construction activities would take place at different locations throughout the project site, it is not expected that the total dose over three years to any single sensitive receptor would result in an exceedance of the SCAQMD maximum individual cancer risk of 10 in one million. Also, in accordance with OEHHA policy described above, any numerical evaluation of cancer risk from very short-term exposures (i.e., less than nine years) would introduce uncertainties into the assessment. Furthermore, the SCAQMD does not require a health risk assessment for short-term construction impacts. Therefore, because of the limited exposure duration and temporary nature of the DPM emissions, no significant impacts with respect to the criteria listed above would occur.

The proposed land uses of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project will not use hazardous materials or emit toxic air contaminants in appreciable quantities. Adjacent land uses would not subject project site residents, employees, or visitors to toxic air emissions. Accordingly, no significant impacts with respect to the criteria listed above are expected to occur.

5.4.3.4.1.7 Threshold: The project would generate emissions of greenhouse gases that could contribute to changes in global climate.

Analysis: As previously discussed, the primary source of GHGs in California is fossil fuel combustion. The primary GHG associated with fuel combustion is carbon dioxide, with lesser amounts of methane and nitrous oxide. Accordingly, the construction and operation of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project would result in direct emissions of these GHGs due to fuel combustion in motor vehicles, construction equipment, and building heating systems

⁸⁴ Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, (2003) 8-4.

associated with the project. Building and motor vehicle air conditioning systems may use HFCs (and HCFCs and CFCs to the extent that they have not been completely phased out at later dates), which may result in emissions through leaks. The other primary GHGs (perfluorocarbons and sulfur hexafluoride) are associated with specific industrial sources and are not expected to be associated with the proposed project.

The direct GHG emissions associated with operation of the project and existing uses were estimated using URBEMIS2007 with the following adjustments to convert CO₂ emissions to GHG emissions on a carbon dioxide equivalent (CO₂E) basis:

- Motor vehicles: The annual CO₂ emissions associated with construction workers and project residents and users of the hotel and park multiplied by a factor based on the assumption that CO₂ represents 95 percent of the CO₂E emissions associated with passenger vehicles, which account for most of these project-related trips.⁸⁵
- Area sources (natural gas combustion): The annual CO₂ emissions obtained from URBEMIS2007 for natural gas consumption for multifamily residences and the hotel were adjusted based on emission factors for CO₂, CH₄, and N₂O for natural gas combustion in the California Climate Action Registry (CCAR)'s *General Reporting Protocol*⁸⁶ and the global warming potential for each GHG.
- Construction diesel trucks and equipment: No adjustment was made to the annual CO₂ emissions because the GHGs in the exhaust from diesel engines are almost entirely CO₂ (less than 1 percent CH₄ and N₂O on a CO₂ equivalent basis).

The project would also result in indirect GHG emissions due to the electrical demands of the project. Emission factors for GHGs due to electrical demand from the project's land uses were obtained from the CCAR *General Reporting Protocol*.⁸⁷ The CCAR is a private non-profit organization formed by the State of California and serves as a voluntary GHG registry to protect and promote early actions to reduce GHG emissions by organizations. This emission factor takes into account the mix of energy sources used to generate electricity in the State of California and the relative carbon intensities of these sources, and includes natural gas, coal, nuclear, large hydroelectric, and other renewable sources of energy. The estimated annual electrical demand for the project was obtained from factors in the California Air

⁸⁵ US Environmental Protection Agency, "Greenhouse Gas Emissions from a Typical Passenger Vehicle", Office of Transportation and Air Quality, EPA420-F-05-004 (Washington, D.C.: U.S. Environmental Protection Agency, February 2005), p. 4.

⁸⁶ California Climate Action Registry, *General Reporting Protocol: Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.0*, (2008).

⁸⁷ California Climate Action Registry, *General Reporting Protocol*, (2008) 91-93.

Pollution Control Officers Association's *CEQA and Climate Change*⁸⁸ whitepaper and the CCAR *General Reporting Protocol*.⁸⁹

Indirect GHG emissions are also associated with the electrical demand resulting from the provision of water to the project site, electrical demand and process emissions due to wastewater treatment, and decomposition of solid waste generated by the project. The electrical demand associated with supplying water to the project site were calculated based on the estimated water use (see **Section 5.9, Water Service**), CEC estimates of electric use for water conveyance, treatment, and distribution,⁹⁰ and the electrical generation factor from the CCAR *General Reporting Protocol*.⁹¹ The wastewater-related GHG emissions were calculated based on the estimated wastewater production (see **Section 5.8, Sewer Service**) and state and federal estimates of GHG associated with wastewater treatment⁹² and the electrical generation factor from the CCAR *General Reporting Protocol*.⁹³ Lastly, the solid waste-related emissions were calculated based on the solid waste generation of the project (see **Section 5.10, Solid Waste Service**) and a US EPA emission factor.⁹⁴

The estimated GHG emissions associated with construction of the project are shown in **Table 5.4-168, Estimated Construction Greenhouse Gas Emissions – Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project**. The values shown are the total of those values in **Table 5.4-224, Estimated Construction Greenhouse Gas Emissions – Neptune Marina Parcel 10R**, **Table 5.4-2830, Estimated Construction Greenhouse Gas Emissions – Neptune Marina Parcel FF**, **Table 5.4-357, Estimated Construction Greenhouse Gas Emissions – Woodfin Suite Hotel and Timeshare Resort** and **Table 5.4-3941, Estimated Construction Greenhouse Gas Emissions – Restored Wetland and Upland Buffer** for the relevant construction activities in a given year.

The estimated GHG emissions associated with the project are shown in **Table 5.4-179, Estimated Operational Greenhouse Gas Emissions – Neptune Marina Apartments and Anchorage/Woodfin Suite**

⁸⁸ California Air Pollution Control Officers Association, *CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, (2008) 61.

⁸⁹ California Climate Action Registry, *General Reporting Protocol*, (2008) 34.

⁹⁰ California Energy Commission, *California's Water-Energy Relationship*, Final Staff Report (CEC-700-2005-011-SF), (2005) 26 and *Refining Estimates of Water-Related Energy Use in California*, PIER Final Project Report (CEC-500-2006-118), (2006) 22.

⁹¹ California Climate Action Registry, *General Reporting Protocol*, (2008) 34.

⁹² California Energy Commission, *Refining Estimates of Water-Related Energy Use in California*, PIER Final Project Report (CEC-500-2006-118), (2006) 22; US Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006* (EPA 430-R-08-005), (2008) 8-15.

⁹³ California Climate Action Registry, *General Reporting Protocol*, (2008) 34.

⁹⁴ US Environmental Protection Agency, Office of Solid Waste and Emergency Response, *Greenhouse Gas Emission Factors for Management of Selected Materials in Municipal Solid Waste* (EPA-530-R-98-013), (1998).

Hotel and Timeshare Resort Project. The values shown are the total of those values in [Table 5.4-235](#), [Estimated Operational Greenhouse Gas Emissions – Neptune Marina Parcel 10R](#), [Table 5.4-2931](#), [Estimated Operational Greenhouse Gas Emissions – Neptune Marina Parcel FF](#), [Table 5.4-368](#), [Estimated Operational Greenhouse Gas Emissions – Woodfin Suite Hotel and Timeshare Resort](#) and [Table 5.4-402](#), [Estimated Operational Greenhouse Gas Emissions – Restored Wetland and Upland Buffer](#).

Table 5.4-186

**Estimated Construction Greenhouse Gas Emissions
Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project**

Construction Year	Emissions in Metric Tons CO ₂ E Per Year
2009 2011	1,886 1,090
2010 2012	3,722 2,951
2011 2013	2,120 2,351
2012 2014	1,624

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

Table 5.4-197

**Estimated Operational Greenhouse Gas Emissions
Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project**

Emissions Source	Emissions in Metric Tons CO ₂ E Per Year
Direct GHG Emissions	
Operational (Mobile) Sources	6,940
Area Sources	1,555
Total Direct GHG Emissions	8,495
Indirect GHG Emissions	
Electrical Generation	2,282
Water Supply	55
Wastewater Treatment	149
Solid Waste	83
Total Indirect GHG Emissions	2,569
Project GHG Emissions	11,064
Emissions Due To Existing Land Uses	2,391
Net GHG Emissions	8,673

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

While the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project would result in emissions of GHGs, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally the case that an individual project of this size is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.⁹⁵ Accordingly, further discussion of the Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project's greenhouse gas emissions and their impact on global climate are addressed in **Section 5.4.4.2, Cumulative Impacts, Global Climate Change.**

5.4.3.4.1.8 Summary of Project Impacts Without Mitigation – Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

Demolition, Excavation/Grading and Construction Impacts: Significant;

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Significant;

Operational Impacts; Daily Emissions: Less than significant;

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant.

Global Climate Change: Less than significant.

5.4.3.4.1.9 Mitigation Measures: Existing Regulations and Standards Applicable to the Project – Neptune Marina Apartments and Anchorage/Woodfin Suite Hotel and Timeshare Resort Project

⁹⁵ California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, (2008) 35.

Mitigation for Demolition, Excavation/Grading and Construction Impacts: The SCAQMD has prepared a list of measures to reduce the impacts of construction-related emissions to the greatest extent possible. Those that could be feasibly implemented during the development of the project to mitigate NO_x, PM_{2.5}, and PM₁₀ emissions are as follows:

- 5.4-1. Develop and implement a construction management plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:
- a. Configure construction parking to minimize traffic interference.
 - b. Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person).
 - c. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable.
 - d. Reroute construction trucks away from congested streets.
 - e. Consolidate truck deliveries when possible.
 - f. Provide dedicated turn lanes for movement of construction trucks and equipment on and off site.
 - g. Maintain equipment and vehicle engines in good condition and in proper tune according to manufacturers' specifications and per SCAQMD rules, to minimize exhaust emissions.
 - h. Suspend use of all construction equipment operations during second stage smog alerts. Contact the SCAQMD at 800/242-4022 for daily forecasts.
 - i. Use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
 - j. Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel if readily available at competitive prices.
 - k. Use propane- or butane-powered on-site mobile equipment instead of gasoline if readily available at competitive prices.
- 5.4-2. Develop and implement a dust control plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:
- a. Apply approved non-toxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas inactive for four days or more).

- b. Replace ground cover in disturbed areas as quickly as possible.
- c. Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, dirt) according to manufacturers' specifications.
- d. Water active grading sites at least twice daily (SCAQMD Rule 403).
- e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.
- f. Provide temporary wind fencing consisting of 3- to 5-foot barriers with 50 percent or less porosity along the perimeter of sites that have been cleared or are being graded.
- g. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code.
- h. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads (recommend water sweepers using reclaimed water if readily available).
- i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- j. Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces.
- k. Enforce traffic speed limits of 15 mph or less on all unpaved roads.
- l. Pave construction roads when the specific roadway path would be utilized for 120 days or more.

5.4-3. In the event asbestos is identified within existing on-site structures, the project applicant/developer shall comply with SCAQMD Rule 1403 (Asbestos Emissions From Demolition/Renovation Activities). Compliance with Rule 1403 is considered to mitigate asbestos-related impacts to less than significant.

Construction mitigation measures recommended in the SCAQMD's *CEQA Air Quality Handbook* that were rejected for the proposed project are listed below along with a discussion of why each measure was rejected:

- Prohibit truck idling in excess of 2 minutes: The nature of diesel engines does not lend them to constant turning on and off during construction activities. However, CARB has adopted an Airborne Toxics Control Measure (ATCM) that applies to all diesel-fueled commercial vehicles over 10,000 pounds and prohibits idling for more than 5 minutes except under limited circumstances. Accordingly, this restriction is required by law and should not be considered mitigation.

- Implement a shuttle service to and from retail services and food establishments during lunch hours: Construction workers typically take a 0.5-hour lunch at various times of the day and eat on-site food that was either brought by the workers (brown bag) or purchased from mobile caterers who travel to the site. This measure would therefore be ineffective in reducing project construction-related emissions.

5.4.3.4.1.10 Summary of Project Impacts With Mitigation: Neptune Marina Apartments and Anchorage Project/Woodfin Suite Hotel and Timeshare Resort

Demolition, Excavation/Grading and Construction Impacts: Significant and unavoidable;

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Significant and unavoidable;

Operational Impacts; Daily Emissions: Less than significant;

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant.

Global Climate Change: Less than significant.

5.4.3.4.2 Neptune Marina Parcel 10R

5.4.3.4.2.1 Threshold: The project will generate air pollutant quantities in excess of established SCAQMD emissions thresholds.

Analysis: Development of the Neptune Marina Parcel 10R would generate air emissions from a wide variety of stationary, area, and mobile sources. Fugitive dust (PM₁₀ and PM_{2.5}) would be generated by on-site construction activities. Once the proposed uses are occupied, emissions would be generated by stationary and area sources such as water and space heaters, landscape maintenance equipment and consumer products. Stationary and area source emissions could also result from the operation of certain types of commercial business, such as restaurants, within the project site. Mobile source emissions would be generated by motor vehicle travel associated with construction activities and occupancy of the proposed development. An assessment of construction and operational emissions are presented below based on the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook*.

Demolition, Excavation/Grading and Construction Impacts: Development of the Neptune Marina Parcel 10R would require removal of existing uses, site excavation and grading and construction of the proposed improvements. Parcel 10R would include construction of a new 10-inch sewer line for approximately 500 linear feet within Marquesas Way and 160 linear feet within Via Marina; and construction of an additional 180 linear feet of new 10-inch line and approximately 710 linear of a new 8-inch sewer line within existing site boundaries of Parcel 10R. Parcel 10R would also include the installation of approximately 500 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances. These activities would occur over a ~~33~~31-month period and, during this time emissions would be generated by on-site stationary sources, heavy-duty construction vehicles, construction worker vehicles and generators. Construction activity associated with the sewer line was assumed to occur during the grading phase of Parcel 10R. Fugitive dust would also be generated during all project development phases (i.e., demolition, excavation, grading and construction). In addition, for structures built before 1978, microscopic asbestos fibers may also pose an air quality concern.

Because of the duration of project development and the normal day-to-day variability in construction activities, it is difficult to precisely quantify the daily emissions associated with each phase of the proposed construction activities. **Table 5.4-1820, Estimated Unmitigated Demolition, Excavation/Grading and Construction Emissions – Neptune Marina Parcel 10R**, identifies daily emissions associated with typical equipment for different construction phases based on information provided by the project applicant and default construction values generated by URBEMIS2007 Version 9.2.4. Emissions associated with the sewer line -and water line construction are included in the analysis. These emissions assume that some of the construction equipment and activities would occur

continuously over an 8-hour period. In reality, this would not occur, as most equipment would operate only a fraction of each workday. Therefore, **Table 5.4-2018** represents a worst-case scenario for the construction phase of the project.

Table 5.4-2018
Estimated Unmitigated Demolition, Excavation/Grading and Construction Emissions
Neptune Marina Parcel 10R

Year	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
2009 2011	<u>76.9544.71</u>	<u>12.88</u>	<u>117.31</u>	0.07 5	<u>27.7141.73</u>	<u>9.6311.96</u>
2010 2012	<u>63.1780.78</u>	<u>14.5395</u>	<u>68.97112.68</u>	0.06 7	<u>4.0547.72</u>	<u>3.5813.81</u>
2011 2013	<u>60.2266.40</u>	<u>13.9014.15</u>	<u>63.2875.27</u>	0.06	<u>3.634.37</u>	<u>3.203.87</u>
			<u>117.31112.6</u>			
Maximum Emissions in Any Year	<u>76.9580.78</u>	<u>14.5314.95</u>	<u>8</u>	0.07	<u>27.7147.72</u>	<u>9.6313.81</u>
SCAQMD Thresholds	550	75	100	150	150	55
Exceeds Thresholds?	NO	NO	YES	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

As shown, the recommended significance threshold for NO_x would be exceeded during the grading phase due to the operation of heavy-duty vehicles, heavy-duty haul trucks, and worker trips. Therefore, construction impacts associated with the construction of Parcel 10R would be considered significant for NO_x emissions.

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: An analysis of the impacts of the Neptune Marina Parcel 10R construction emissions on ambient concentrations of PM₁₀, PM_{2.5}, NO₂ and CO was conducted. This analysis determined the ambient air quality impacts on the day with the highest estimated daily mass emission rates. The methodology and results are described in detail in **Appendix 5.4**. The results of the dispersion modeling analysis are compared to the localized significance thresholds in **Table 5.4-1921, Localized Significance Thresholds Analysis – Parcel 10R**.

Table 5.4-2119
Localized Significance Thresholds Analysis – Parcel 10R

Pollutant	Averaging Period	Modeling Results		LST Criteria		Exceeds Threshold?
		µg/m3	ppm	µg/m3	ppm	
Respirable Particulate Matter (PM ₁₀)	24 hours	23.3348 5	NA	10.4	NA	YES
<u>Respirable Particulate Matter (PM₁₀)</u>	<u>Annual</u>	<u>2.49</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Fine Particulate Matter (PM _{2.5})	24 hours	11.9415 8	NA	10.4	NA	YES
<u>Fine Particulate Matter (PM_{2.5})</u>	<u>Annual</u>	<u>0.93</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Nitrogen Dioxide (NO ₂)	1 hour	113424	0.06	188	0.10	NO
<u>Nitrogen Dioxide (NO₂)</u>	<u>Annual</u>	<u>0.88</u>	<u>0.00</u>	<u>19</u>	<u>0.01</u>	<u>NO</u>
Carbon Monoxide (CO)	1 hour	814782	0.7168	19,454	17	NO
Carbon Monoxide (CO)	8 hours	284273	0.245	7,896	6.9	NO

Source: South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2008.

¹ LST Criteria for NO₂ and CO are the difference between CAAQS and the Peak Concentrations during the last three years (see Table 5.4-2).

As shown in **Table 5.4-2119**, the construction of the Neptune Marina Parcel 10R would cause localized significant impacts for PM₁₀ and PM_{2.5}.

Project construction would involve the demolition and removal of existing structures located on the Parcel 10R site. Demolition of the existing structures would be a potential hazard if the buildings contained asbestos fibers. The existing buildings were constructed in the 1960s. Typically, buildings built before 1978 are considered to have a higher probability of containing asbestos fibers; however, under SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities), all buildings must be properly inspected for the presence of asbestos. Demolition of all existing structures must comply with the precautionary requirements specified in Rule 1403. All structures must be stabilized and removed in accordance with applicable regulations including Rule 1403. This rule is intended to limit asbestos emissions from demolition or renovation of structures and the associated disturbance of asbestos-containing waste material generated or handled during these activities. The rule addresses the US EPA NESHAP and provides additional requirements to cover non-NESHAP areas. The rule requires that the SCAQMD be notified before any demolition or renovation activity occurs. This notification includes a description of the structures and methods utilized to determine the presence or absence of asbestos. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity. As part of project implementation, the project applicant must comply with the requirements of Rule 1403. Project compliance with Rule 1403 would ensure that asbestos-containing materials would be removed and disposed of appropriately. With adherence to this applicable regulation, the potential for significant adverse health impacts would be reduced to less than significant level.

Operational Impacts; Daily Emissions: Operational emissions would be generated by area and mobile, and possibly by stationary, sources as a result of normal day-to-day activities on the project site after occupation. The emissions from such sources are primarily associated with fuel combustion, which is addressed in the area and mobile source emission calculations by URBEMIS2007 discussed below. Area sources emissions would be generated by the consumption of natural gas for space and water heating devices and food preparation and from the operation of gasoline-powered landscape maintenance equipment and consumer products (e.g., hair spray, deodorants, lighter fluid, air fresheners, automotive products and household cleaners). Mobile emissions would be generated by the motor vehicles traveling to and from the residential units, boat spaces and commercial uses. The Neptune Marina Parcel 10R area and mobile source emissions as estimated using URBEMIS2007 are shown in **Table 5.4-220, Estimated Operational Emissions without Mitigation – Neptune Marina Parcel 10R**. Because the existing apartments would be demolished, the emissions associated with the existing land use and the net emissions are also shown in **Table 5.4-220**.

Table 5.4-220
Estimated Operational Emissions without Mitigation
Neptune Marina Parcel 10R

Emissions Source	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Summertime Emissions¹						
Operational (Mobile) Sources	169.28	15.96	18.29	0.22	35.40	6.88
Area Sources	4.76	21.75	3.96	0.00	0.02	0.02
Summertime Emission Totals:	174.04	37.71	22.25	0.22	35.42	6.90
Emissions Due To Existing Land Uses:	136.78	21.55	15.30	0.10	16.42	3.21
Net Increase In Emissions	37.26	16.16	6.95	0.12	19.00	3.69
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO
Wintertime Emissions²						
Operational (Mobile) Sources	160.59	15.66	22.04	0.18	35.40	6.88
Area Sources	1.67	21.50	3.92	0.00	0.01	0.01
Wintertime Emission Totals:	162.26	37.16	25.96	0.18	35.41	6.89
Emissions Due To Existing Land Uses:	129.94	21.18	18.24	0.08	16.41	3.20
Net Emissions	32.32	15.98	7.72	0.10	19.00	3.69
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

¹ "Summertime Emissions" are representative of worst-case conditions that may occur during the O₃ season (May 1 to October 31).

² "Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).

As shown, the Neptune Marina Parcel 10R at buildout and in full operation would not generate a net increase in emissions that would exceed SCAQMD recommended thresholds. Therefore, the operation of the proposed Neptune Marina Parcel 10R would not result in a significant air quality impact.

Operational Impacts; Wind: RWDI prepared a wind study for the proposed project to assess the project's development and/or building placement on wind patterns within the marina, loss of surface winds used by birds and sailboats and general air circulation (this report is included in **Appendix 5.4** in its entirety). The study concluded:

From the results of this wind study, it has been concluded that the proposed Neptune Marina will produce similar wind conditions over a majority of the areas of Marina del Rey. There will be localized areas of altered wind directions and speeds at the west end of Basins B and C. The change in wind conditions noted at the west end of Basins B and C is assumed not to be significant as boats would be under power at this location in the marina. The overall wind conditions predicted with the proposed and expected future developments are similar to those presently experienced in and around the marina and, therefore, the general air circulation patterns and the use of surface winds by birds will not be affected.

Operational Impacts; Additional Indicators: As previously discussed, the SCAQMD lists criteria indicating when a project may create potential air quality impacts. These criteria are listed below along with an analysis of whether or not the project meets any of them. If a project meets any one of the criteria, project air quality impacts would be significant relative to that criterion.

5.4.3.4.2.2 Threshold: The project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.

Analysis: SCAQMD's *CEQA Air Quality Handbook* indicates that an air quality modeling analysis would need to be performed to identify the project's impact on ambient air quality.⁹⁶ In order for a project to be found consistent with the applicable AQMP, the analysis would have to demonstrate that the project's emissions would not increase the frequency or the severity of existing air quality violations, or contribute to a new violation.⁹⁷ The CO analysis for traffic emissions described below assesses the potential ambient air quality impacts with respect to this pollutant. URBEMIS2007 was used to calculate project emissions for comparison with thresholds addressing regional significance. The estimated operational emissions due to proposed project were found to be less than significant. Hence, the project is not expected to violate ambient air quality standards or contribute to an existing or projected air quality violation.

⁹⁶ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-3.

⁹⁷ South Coast Air Quality Management District, *CEQA Air Quality Handbook*, p. 12-3.

5.4.3.4.2.3 Threshold: The project could result in population increases within an area, which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.

Analysis: As discussed earlier in this analysis, the 2007 AQMP is designed to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to achieve the federal 8-hour ozone standard by 2021⁹⁸ and to minimize the impact on the economy. Projects that are considered to be consistent with the AQMP do not interfere with attainment and do not contribute to the exceedance of an existing air quality violation because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended thresholds. The following analysis discusses the project's consistency with the AQMP.

Projects that are consistent with the projections of population forecasts identified in the Growth Management Chapter of the RCPG are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

As discussed in **Section 5.16, Population and Housing**, the Neptune Marina Parcel 10R is considered to be consistent with the future population and employment figures projected for the site's census tract. The project would not increase population over that which has been planned for the area, would be consistent with the AQMP forecasts for this area, would be considered consistent with the air quality-related regional plans and should not jeopardize attainment of state and federal ambient air quality standards in the basin.

Another measurement tool in determining AQMP consistency is to determine how a project accommodates the expected increase in population and employment. Generally, if a project is planned in a way that results in the minimization of VMT both within the project and in the community in which it is located and consequently the minimization of air pollutant emissions, that project is consistent with the AQMP.⁹⁹

The nature of the project and its location within the Marina del Rey and surrounding urban areas with supporting commercial and office uses would minimize the need for or distance of some automobile trips, thereby, reducing automotive emissions from such trips. This type of development is consistent

⁹⁸ The 2007 AQMP has determined that the basin will still exceed the federal 8-hour ozone standard in 2021 even with implementation of 2007 AQMP control measures.

⁹⁹ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-5.

with the goals of the AQMP for reducing motor vehicle emissions. In addition, the project site is located in proximity to existing job centers that provide employment opportunities to many Marina del Rey residents. With these job centers, many local residents do not have to commute to distant employment centers. The project site is also linked to various employment, shopping and recreation areas throughout the Los Angeles Basin through the local transit system. Use of these facilities could reduce the need for some motor vehicle trips. As a result of reduced commutes and other vehicle trips, VMT and, consequently, air pollutant emissions could be further reduced.

5.4.3.4.2.4 Threshold: The project could generate vehicle trips that cause a CO hotspot or the project could be occupied by sensitive receptors that are exposed to a CO hotspot.

Analysis: As was done to assess cumulative CO concentrations, the simplified CALINE4 screening procedure was used to predict future CO concentrations 0 and 25 feet from the intersections in the study area for future traffic with the addition of Parcel 10R only. The results of air emissions modeling for the project study area are shown in **Table 5.4-231, Carbon Monoxide Concentrations Future with Parcel 10R Traffic (2013)**. The values in this table reflect the ambient air quality impacts of emissions resulting from ambient traffic growth in the area along with traffic resulting from the proposed Parcel 10R development as predicted in the traffic impact analysis for the project.¹⁰⁰

**Table 5.4-231
Carbon Monoxide Concentrations
Future with Parcel 10R Traffic (2013) (parts per million)**

Intersection	LOS	0 Feet		25 Feet	
		1-Hour ¹	8-Hour ²	1-Hour ¹	8-Hour ²
Admiralty Way & Mindanao Way	C	7.4	4.3	6.5	3.7
Lincoln Blvd. & Fiji Way	C	8.4	5.0	7.3	4.2
Lincoln Blvd. & Marina Expressway (SR-90)	C	7.8	4.6	6.8	3.9
Lincoln Blvd. & Mindanao Way	D	7.7	4.5	6.8	3.9
Lincoln Blvd. & Washington Blvd.	F	9.0	5.4	7.7	4.5
Marina Expressway (SR-90 EB) & Mindanao Way	C	6.4	3.6	5.9	3.2
Palawan Way & Admiralty Way	B	7.1	4.1	6.3	3.5
Palawan Way & Washington Blvd.	C	6.8	3.9	6.1	3.4
Via Marina & Admiralty Way	C	5.5	3.0	5.4	2.9
Via Marina & Washington Blvd.	D	7.0	4.0	6.2	3.5

Source: Impact Sciences, Inc. The CO concentration calculations are provided in **Appendix 5.4**.

Note: Not all intersections would operate at a level of service (LOS) that could generate a CO hotspot (i.e., D or worse). However, for consistency purposes all ten intersections that were adversely affected during the "Cumulative with Project" scenario were analyzed for a potential CO hotspot.

¹ State standard is 20 parts per million. Federal standard is 35 parts per million.

² State standard is 9.0 parts per million. Federal standard is 9 parts per million.

¹⁰⁰ Crain & Associates, *Traffic Analysis for a Proposed 526-Unit Residential Development, 288-Room Hotel/Timeshare Resort, and 1.46-Acre Public Park on Parcels 10R, FF and 9U in Marina del Rey* (Los Angeles, California: Crain & Associates, December 2007).

As shown, the state and federal 1- and 8-hour CO standards would not be exceeded at any of the modeled intersections at Parcel 10R buildout with ambient traffic growth. Therefore, CO hotspots are not predicted to occur near these intersections in the future with the contribution of related projects, and the proposed project traffic-related CO at these intersections would not be considered significant.

5.4.3.4.2.5 Threshold: The project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

Analysis: The residential uses associated with the Neptune Marina Parcel 10R are not expected to be a source of odors. The adjacent land uses are such that the project residents would not be subjected to objectionable odors from any surrounding land use. Consequently, no significant impacts from such odors are anticipated.

5.4.3.4.2.6 Threshold: The project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;

Threshold: The project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list;

Threshold: The project could be occupied by sensitive receptors within 0.25 mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

Threshold: The project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million.

Analysis: Construction of the Neptune Marina Parcel 10R would not result in an accidental release of hazardous materials on site because any lead-based paint and asbestos containing materials would be abated and disposed of in accordance with SCAQMD and other local and state regulations. Construction of the project would result in emissions of DPM, which has been designated a TAC by CARB. Typically, cancer risk is assessed for long-term exposure durations (typically 70 years). Construction of the project would result in much shorter-term DPM emissions, however, and exposure would be for less than three years. According to OEHHA, high short-term exposures (i.e., less than a maximum theoretical project life of 70 years) are not necessarily equivalent to low longer-term exposures, as previously discussed. Construction of the Parcel 10R would result in maximum on-site DPM emissions of 4.87 pounds per day in 2011; 3.36 pounds per day in 2012; and 2.98 pounds per day in 2013. These emissions would occur at various locations through the Parcel. Because construction of the Parcel would result in a maximum

exposure duration of DPM for just under three years and because construction activities would take place at different locations throughout the site, it is not expected that the total dose to any single sensitive receptor would result in an exceedance of the SCAQMD maximum individual cancer risk of ten in one million. Also, in accordance with OEHHA policy described above, any numerical evaluation of cancer risk from short-term exposures (i.e., less than nine years) would introduce uncertainties into the assessment. Furthermore, the SCAQMD does not require a health risk assessment for short-term construction impacts. Therefore, because of the limited exposure duration and temporary nature of the DPM emissions, no significant impacts with respect to the criteria listed above will occur.

The proposed land use of the Neptune Marina Parcel 10R will not use hazardous materials or emit toxic air contaminants in appreciable quantities. Adjacent land uses would not subject project site residents, employees, or visitors to toxic air emissions. Accordingly, no significant impacts with respect to the criteria listed above are expected to occur.

5.4.3.4.2.7 Threshold: The project would generate emissions of greenhouse gases that could contribute to changes in global climate.

As previously discussed, the primary source of GHGs in California is fossil fuel combustion. The primary GHG associated with fuel combustion is carbon dioxide, with lesser amounts of methane and nitrous oxide. Accordingly, the construction and operation of the Neptune Marina Parcel 10R would result in direct emissions of these GHGs due to fuel combustion in motor vehicles, construction equipment, and building heating systems associated with the project. Building and motor vehicle air conditioning systems may use HFCs (and HCFCs and CFCs to the extent that they have not been completely phased out at later dates), which may result in emissions through leaks. The other primary GHGs (perfluorocarbons and sulfur hexafluoride) are associated with specific industrial sources and are not expected to be associated with the proposed project. In addition, indirect GHG emissions would be associated with the electrical demand of the apartments, the electrical demand resulting from the provision of water to the project site, the electrical demand and process emissions due to wastewater treatment, and the decomposition of solid waste generated by the project.

Using the methods described in **Section 5.4.3.4.1.7**, the construction and operational GHG emissions associated with the project were estimated and are shown in **Table 5.4-224, Estimated Construction Greenhouse Gas Emissions – Neptune Marina Parcel 10R** and **Table 5.4-253, Estimated Operational Greenhouse Gas Emissions – Neptune Marina Parcel 10R**, respectively.

Table 5.4-242
Estimated Construction Greenhouse Gas Emissions
Neptune Marina Parcel 10R

Construction Year	Emissions in Metric Tons CO ₂ E Per Year
2009 2011	1,036 95
2010 2012	1,641 7,585
2011 2013	1,504 7,635

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

Table 5.4-253
Estimated Operational Greenhouse Gas Emissions
Neptune Marina Parcel 10R

Emissions Source	Emissions in Metric Tons CO ₂ E Per Year
Direct GHG Emissions	
Operational (Mobile) Sources	3,568
Area Sources	832
Total Direct GHG Emissions	4,400
Indirect GHG Emissions	
Electrical Generation	1,118
Water Supply	24
Wastewater Treatment	67
Solid Waste	47
Total Indirect GHG Emissions	1,256
Project GHG Emissions:	5,656
Emissions Due To Existing Land Uses:	2,391
Net GHG Emissions:	3,265

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

While the Neptune Marina Parcel 10R would result in emissions of GHGs, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally the case that an individual project of this size is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are

no non-cumulative GHG emission impacts from a climate change perspective.¹⁰¹ Accordingly, further discussion of the Neptune Marina Parcel 10R greenhouse gas emissions and their impact on global climate are addressed in **Section 5.4.4.2, Cumulative Impacts, Global Climate Change.**

5.4.3.4.2.8 Summary of Project Impacts Without Mitigation – Neptune Marina Parcel 10R

Demolition, Excavation/Grading and Construction Impacts: Significant;

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Significant;

Operational Impacts; Daily Emissions: Less than significant;

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant;

Global Climate Change: Less than significant.

5.4.3.4.2.9 Summary of Mitigation; Existing Regulations and Standards Applicable to the Project – Neptune Marina Parcel 10R

Mitigation for Demolition, Excavation/Grading and Construction Impacts: The SCAQMD has prepared a list of measures to reduce the impacts of construction-related emissions to the greatest extent possible. Those that could be feasibly implemented during the development of the project to mitigate NO_x, PM_{2.5}, and PM₁₀ emissions are as follows:

- 5.4-4.** Develop and implement a construction management plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:
- a. Configure construction parking to minimize traffic interference.
 - b. Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person).
 - c. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable.

¹⁰¹ California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, (2008) 35.

- d. Reroute construction trucks away from congested streets.
- e. Consolidate truck deliveries when possible.
- f. Provide dedicated turn lanes for movement of construction trucks and equipment on and off site.
- g. Maintain equipment and vehicle engines in good condition and in proper tune according to manufacturers' specifications and per SCAQMD rules, to minimize exhaust emissions.
- h. Suspend use of all construction equipment operations during second stage smog alerts. Contact the SCAQMD at 800/242-4022 for daily forecasts.
- i. Use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
- j. Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel if readily available at competitive prices.
- k. Use propane- or butane-powered on-site mobile equipment instead of gasoline if readily available at competitive prices.

5.4-5. Develop and implement a dust control plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:

- a. Apply approved non-toxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas inactive for four days or more).
- b. Replace ground cover in disturbed areas as quickly as possible.
- c. Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, dirt) according to manufacturers' specifications.
- d. Water active grading sites at least twice daily (SCAQMD Rule 403).
- e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.
- f. Provide temporary wind fencing consisting of 3- to 5-foot barriers with 50 percent or less porosity along the perimeter of sites that have been cleared or are being graded.
- g. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code.

- h. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads (recommend water sweepers using reclaimed water if readily available).
- i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- j. Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces.
- k. Enforce traffic speed limits of 15 mph or less on all unpaved roads.
- l. Pave construction roads when the specific roadway path would be utilized for 120 days or more.

5.4-6. In the event asbestos is identified within existing on-site structures, the project applicant/developer shall comply with SCAQMD Rule 1403 (Asbestos Emissions From Demolition/Renovation Activities). Compliance with Rule 1403 is considered to mitigate asbestos-related impacts to less than significant.

Construction mitigation measures recommended in the SCAQMD's *CEQA Air Quality Handbook* that were rejected for the proposed project are listed below along with a discussion of why each measure was rejected:

- Prohibit truck idling in excess of 2 minutes: The nature of diesel engines does not lend them to constant turning on and off during construction activities. However, CARB has adopted an ATCM that applies to all diesel-fueled commercial vehicles over 10,000 pounds and prohibits idling for more than 5 minutes except under limited circumstances. Accordingly, this restriction is required by law and should not be considered mitigation.
- Implement a shuttle service to and from retail services and food establishments during lunch hours: Construction workers typically take a 0.5-hour lunch at various times of the day and eat on-site food that was either brought by the workers (brown bag) or purchased from mobile caterers who travel to the site. This measure would therefore be ineffective in reducing project construction-related emissions.

5.4.3.4.2.10 Summary of Project Impacts With Mitigation – Neptune Marina Parcel 10R

Demolition, Excavation/Grading and Construction Impacts: Significant and unavoidable;

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Significant and unavoidable;

Operational Impacts; Daily Emissions: Less than significant;

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant;

Global Climate Change: Less than significant.

Air Quality Impacts and Mitigation Measures: Neptune Marina Parcel 10R Project

5.4.3.4.3 Neptune Marina Parcel FF

5.4.3.4.3.1 Threshold: The project will generate air pollutant quantities in excess of established SCAQMD emissions thresholds.

Analysis: Development of the Neptune Marina Parcel FF would generate air emissions from a wide variety of stationary, area, and mobile sources. Fugitive dust (PM₁₀ and PM_{2.5}) would be generated by on-site construction activities. Once the proposed uses are occupied, emissions would be generated by stationary and area sources such as water and space heaters, landscape maintenance equipment and consumer products. Stationary and area source emissions could also result from the operation of certain types of commercial business, such as restaurants, within the project site. Mobile source emissions would be generated by motor vehicle travel associated with construction activities and occupancy of the proposed development. An assessment of construction and operational emissions are presented below based on the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook*.

Demolition, Excavation/Grading and Construction Impacts: Development of the Neptune Marina Parcel FF would require removal of an existing surface parking lot, site excavation and grading and construction of the proposed improvements. Parcel FF would include the installation of approximately 170 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances. These activities would occur over a 245-month period and, during this time, emissions would be generated by on-site stationary sources, heavy-duty construction vehicles, construction worker vehicles and generators. Fugitive dust would also be generated during all project development phases (i.e., demolition, excavation, grading and construction). Because of the duration of project development and the normal day-to-day variability in construction activities, it is difficult to precisely quantify the daily emissions associated with each phase of the proposed construction activities. **Table 5.4-264, Estimated Unmitigated Demolition, Excavation/Grading and Construction Emissions – Neptune Marina Parcel FF**, identifies daily emissions associated with typical equipment for different construction phases based on information provided by the project applicant and default construction values generated by URBEMIS2007 Version 9.2.4. These emissions assume that some of the construction equipment and activities would occur continuously over an 8-hour period. In reality, this would not occur, as most equipment would operate only a fraction of each workday. Therefore, **Table 5.4-264** represents a worst-case scenario for the construction phase of the Neptune Marina Parcel FF.

Table 5.4-264
Estimated Unmitigated Demolition, Excavation/Grading and Construction Emissions
Neptune Marina Parcel FF

Year	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
2010 2011	33.47 7.11	7.05 1.51	58.92 11.75	0.02 0	12.24 1.51	4.85 0.78
2011 2012	32.84 34.26	6.5984	54.61 52.85	0.02	11.92 13.69	4.57 4.39
2012 2013	22.78 23.82	6.1164	31.98 34.74	0.02	1.5374	1.3753
Maximum Emissions in Any Year	33.47 34.26	7.05 6.84	58.92 52.85	0.02	12.24 13.69	4.85 4.39
SCAQMD Thresholds	550	75	100	150	150	55
Exceeds Thresholds?	NO	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

As shown, construction emissions associated with development of Parcel FF would not exceed the thresholds of significance during any construction year. Therefore, proposed construction on Parcel FF would not result in a significant air quality impact.

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: An analysis of the impacts of the Neptune Marina Parcel FF construction emissions on ambient concentrations of PM₁₀, PM_{2.5}, NO₂ and CO was conducted. This analysis determined the ambient air quality impacts from construction activities on the day with the highest estimated daily mass emission rates. The methodology and results are described in detail in **Appendix 5.4**. The results of the dispersion modeling analysis are compared to the localized significance thresholds in **Table 5.4-275, Localized Significance Thresholds Analysis – Neptune Marina Parcel FF**.

Table 5.4-275
Localized Significance Thresholds Analysis
Neptune Marina Parcel FF

Pollutant	Averaging Period	Modeling Results		LST Criteria ¹		Exceeds Threshold?
		µg/m ³	ppm	µg/m ³	ppm	
Respirable Particulate Matter (PM ₁₀)	24 hours	<u>29.33</u> 31.2	NA	10.4	NA	YES
<u>Respirable Particulate Matter (PM₁₀)</u>	<u>Annual</u>	<u>1.54</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Fine Particulate Matter (PM _{2.5})	24 hours	<u>13.27</u> 11.0	NA	10.4	NA	YES
<u>Fine Particulate Matter (PM_{2.5})</u>	<u>Annual</u>	<u>1.06</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Nitrogen Dioxide (NO ₂)	1 hour	<u>90.90</u> 96.1	0.05	188	0.10	NO
<u>Nitrogen Dioxide (NO₂)</u>	<u>Annual</u>	<u>1.30</u>	<u>0.00</u>	<u>19</u>	<u>0.01</u>	<u>NO</u>
Carbon Monoxide (CO)	1 hour	<u>766</u> 635	0.6755	19,454	17	NO
Carbon Monoxide (CO)	8 hours	<u>277</u> 229	0.240	7,896	6.9	NO

Source: Impact Sciences, Inc.

¹ South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2008.

As shown in **Table 5.4-275**, the construction of the Neptune Marina Parcel FF would cause localized significant impacts for PM₁₀ and PM_{2.5}.

Operational Impacts; Daily Emissions: Operational emissions would be generated by area and mobile, and possibly by stationary, sources as a result of normal day-to-day activities on the project site after occupation. The emissions from such sources are primarily associated with fuel combustion, which is addressed in the area and mobile source emission calculations by URBEMIS2007 discussed below. Area sources emissions would be generated by the consumption of natural gas for space and water heating devices and food preparation and from the operation of gasoline-powered landscape maintenance equipment and consumer products (e.g., hair spray, deodorants, lighter fluid, air fresheners, automotive products and household cleaners). Mobile emissions would be generated by the motor vehicles traveling to and from the residential units, boat spaces and commercial uses. The Neptune Marina Parcel FF area and mobile source emissions as estimated using URBEMIS2007 are shown in **Table 5.4-286, Estimated Operational Emissions without Mitigation – Neptune Marina Parcel FF.**

Table 5.4-286
Estimated Operational Emissions without Mitigation
Neptune Marina Parcel FF

Emissions Source	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Summertime Emissions¹						
Operational (Mobile) Sources	42.02	3.84	4.49	0.05	8.71	1.69
Area Sources	2.08	6.89	1.26	0.00	0.01	0.01
Summertime Emission Totals:	44.10	10.73	5.75	0.05	8.72	1.70
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO
Wintertime Emissions²						
Operational (Mobile) Sources	39.80	3.82	5.42	0.04	8.71	1.69
Area Sources	0.53	6.77	1.24	0.00	0.00	0.00
Wintertime Emission Totals:	40.33	10.59	6.66	0.04	8.71	1.69
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

¹ "Summertime Emissions" are representative of worst-case conditions that may occur during the O₃ season (May 1 to October 31).

² "Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).

As shown, the Neptune Marina Parcel FF at buildout and in full operation would not generate emissions that would exceed SCAQMD recommended thresholds. Therefore, the proposed Neptune Marina Parcel FF would not result in a significant air quality impact.

Operational Impacts; Wind: RWDI prepared a wind study for the proposed project to assess the project's development and/or building placement on wind patterns within the marina, loss of surface winds used by birds and sailboats and general air circulation (this report is included in **Appendix 5.4** in its entirety). The study concluded:

From the results of this wind study, it has been concluded that the proposed Neptune Marina will produce similar wind conditions over a majority of the areas of Marina del Rey. There will be localized areas of altered wind directions and speeds at the west end of Basins B and C. The change in wind conditions noted at the west end of Basins B and C is assumed not to be significant as boats would be under power at this location in the marina. The overall wind conditions predicted with the proposed and expected future developments are similar to those presently experienced in and around the marina and, therefore, the general air circulation patterns and the use of surface winds by birds will not be affected.

Operational Impacts; Additional Indicators: As previously discussed, the SCAQMD lists criteria indicating when a project may create potential air quality impacts. These criteria are listed below along

with an analysis of whether or not the project meets any of them. If a project meets any one of the criteria, project air quality impacts would be significant relative to that criterion.

5.4.3.4.3.2 Threshold: The project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.

Analysis: SCAQMD's *CEQA Air Quality Handbook* indicates that an air quality modeling analysis would need to be performed to identify the project's impact on ambient air quality.¹⁰² In order for a project to be found consistent with the applicable AQMP, the analysis would have to demonstrate that the project's emissions would not increase the frequency or the severity of existing air quality violations, or contribute to a new violation.¹⁰³ The CO analysis for traffic emissions described below assesses the potential ambient air quality impacts with respect to this pollutant. URBEMIS2007 was used to calculate project emissions for comparison with thresholds addressing regional significance. The estimated operational emissions due to proposed project were found to be less than significant. Hence, the project is not expected to violate ambient air quality standards or contribute to an existing or projected air quality violation.

5.4.3.4.3.3 Threshold: The project could result in population increases within an area, which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.

Analysis: As discussed earlier in this analysis, the 2007 AQMP is designed to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to achieve the federal 8-hour ozone standard by 2021¹⁰⁴ and to minimize the impact on the economy. Projects that are considered to be consistent with the AQMP do not interfere with attainment and do not contribute to the exceedance of an existing air quality violation because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended thresholds. The following analysis discusses the project's consistency with the AQMP.

¹⁰² South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-3.

¹⁰³ South Coast Air Quality Management District, *CEQA Air Quality Handbook*, p. 12-3.

¹⁰⁴ The 2007 AQMP has determined that the basin will still exceed the federal 8-hour ozone standard in 2021 even with implementation of 2007 AQMP control measures.

Projects that are consistent with the projections of population forecasts identified in the Growth Management Chapter of the RCPG are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

As discussed in **Section 5.16, Population and Housing**, the Neptune Marina Parcel FF is considered to be consistent with the future population and employment figures projected for the site's census tract. The project would not increase population over that which has been planned for the area, would be consistent with the AQMP forecasts for this area, would be considered consistent with the air quality-related regional plans and should not jeopardize attainment of state and federal ambient air quality standards in the basin.

Another measurement tool in determining AQMP consistency is to determine how a project accommodates the expected increase in population and employment. Generally, if a project is planned in a way that results in the minimization of VMT both within the project and in the community in which it is located and consequently the minimization of air pollutant emissions, that project is consistent with the AQMP.¹⁰⁵

The nature of the project and its location within the Marina del Rey and surrounding urban areas with supporting commercial and office uses would minimize the need for or distance of some automobile trips, thereby, reducing automotive emissions from such trips. This type of development is consistent with the goals of the AQMP for reducing motor vehicle emissions. In addition, the project site is located in proximity to existing job centers that provide employment opportunities to many Marina del Rey residents. With these job centers, many local residents do not have to commute to distant employment centers. The project site is also linked to various employment, shopping and recreation areas throughout the Los Angeles Basin through the local transit system. Use of these facilities could reduce the need for some motor vehicle trips. As a result of reduced commutes and other vehicle trips, VMT and, consequently, air pollutant emissions could be further reduced.

5.4.3.4.3.4 Threshold: The project could generate vehicle trips that cause a CO hotspot or the project could be occupied by sensitive receptors that are exposed to a CO hotspot.

Analysis: As was done to assess cumulative CO concentrations, the simplified CALINE4 screening procedure was used to predict CO concentrations 0 and 25 feet from the intersections in the study area for future traffic with the addition of Parcel FF only. The results of air emissions modeling for the project study area are shown in **Table 5.4-297, Carbon Monoxide Concentrations Future with Parcel FF Traffic**

¹⁰⁵ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-5.

(2013). The values in this table reflect the ambient air quality impacts of emissions resulting from ambient traffic growth in the area along with traffic resulting from the proposed Parcel FF development as predicted in the traffic impact analysis for the project.¹⁰⁶

Table 5.4-297
Carbon Monoxide Concentrations
Future with Parcel FF Traffic (2013)
(parts per million)

Intersection	LOS	0 Feet		25 Feet	
		1-Hour ¹	8-Hour ²	1-Hour ¹	8-Hour ²
Admiralty Way & Mindanao Way	C	7.3	4.3	6.5	3.7
Lincoln Blvd. & Fiji Way	C	8.4	5.0	7.3	4.2
Lincoln Blvd. & Marina Expressway (SR-90)	C	7.8	4.6	6.8	3.9
Lincoln Blvd. & Mindanao Way	D	7.7	4.5	6.8	3.9
Lincoln Blvd. & Washington Blvd.	F	9.0	5.4	7.7	4.5
Marina Expressway (SR-90 EB) & Mindanao Way	C	6.4	3.6	5.9	3.2
Palawan Way & Admiralty Way	B	7.1	4.1	6.3	3.5
Palawan Way & Washington Blvd.	C	6.8	3.9	6.1	3.4
Via Marina & Admiralty Way	C	5.5	3.0	5.4	2.9
Via Marina & Washington Blvd.	D	7.0	4.0	6.2	3.5

Source: Impact Sciences, Inc. The CO concentration calculations are provided in **Appendix 5.4**.

Note: Not all intersections would operate at a level of service (LOS) that could generate a CO hotspot (i.e., D or worse). However, for consistency purposes all ten intersections that were adversely affected during the "Cumulative with Project" scenario were analyzed for a potential CO hotspot.

¹ State standard is 20 parts per million. Federal standard is 35 parts per million.

² State standard is 9.0 parts per million. Federal standard is 9 parts per million.

As shown, the state and federal 1- and 8-hour CO standards would not be exceeded at any of the modeled intersections at Parcel FF buildout with ambient traffic growth. Therefore, CO hotspots are not predicted to occur near these intersections in the future with the contribution of related projects, and the proposed project traffic-related CO at these intersections would not be considered significant.

5.4.3.4.3.5 Threshold: The project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

Analysis: The residential uses associated with the Neptune Marina Parcel FF are not expected to be a source of odors. The adjacent land uses are such that the project residents would not be subjected to objectionable odors from any surrounding land use. Consequently, no significant impacts from such odors are anticipated.

¹⁰⁶ Crain & Associates, *Traffic Analysis for a Proposed 526-Unit Residential Development, 288-Room Hotel/Timeshare Resort, and 1.46-Acre Public Park on Parcels 10R, FF and 9U in Marina del Rey* (Los Angeles, California: Crain & Associates, May 2007).

5.4.3.4.3.6 Threshold: The project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;

Threshold: The project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list;

Threshold: The project could be occupied by sensitive receptors within 0.25 mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

Threshold: The project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of 10 in one million.

Analysis: Construction of the Neptune Marina Parcel FF would not result in an accidental release of hazardous materials on site because any lead-based paint and asbestos containing materials would be abated and disposed of in accordance with SCAQMD and other local and state regulations. Construction of the Parcel would result in emissions of DPM, which has been designated a TAC by CARB. Typically, cancer risk is assessed for long-term exposure durations (typically 70 years). Construction of the project would result in much shorter-term DPM emissions, however, and exposure would be for less than two years. According to OEHHA, high short-term exposures (i.e., less than a maximum theoretical project life of 70 years) are not necessarily equivalent to low longer-term exposures, as previously discussed. Construction of the Parcel would result in maximum on-site DPM emissions of 2.69 pounds per day in 2011; 2.48 pounds per day in 2012; and 1.33 pounds per day in 2013. These emissions would occur at various locations through the Parcel. Because construction of the project would result in a maximum exposure duration of DPM for approximately two years and because construction activities would take place at different locations throughout the site, it is not expected that the total dose to any single sensitive receptor would result in an exceedance of the SCAQMD maximum individual cancer risk of ten in one million. Also, in accordance with OEHHA policy described above, any numerical evaluation of cancer risk from short-term exposures (i.e., less than nine years) would introduce uncertainties into the assessment. Furthermore, the SCAQMD does not require a health risk assessment for short-term construction impacts. Therefore, because of the limited exposure duration and temporary nature of the DPM emissions, no significant impacts with respect to the criteria listed above would occur.

The proposed land use of the Neptune Marina Parcel FF will not use hazardous materials or emit toxic air contaminants in appreciable quantities. Adjacent land uses would not subject project site residents,

employees, or visitors to toxic air emissions. Accordingly, no significant impacts with respect to the criteria listed above are expected to occur.

5.4.3.4.3.7 Threshold: The project would generate emissions of greenhouse gases that could contribute to changes in global climate.

Analysis: As previously discussed, the primary source of GHGs in California is fossil fuel combustion. The primary GHG associated with fuel combustion is carbon dioxide, with lesser amounts of methane and nitrous oxide. Accordingly, the construction and operation of the Neptune Marina Parcel FF would result in direct emissions of these GHGs due to fuel combustion in motor vehicles, construction equipment, and building heating systems associated with the project. Building and motor vehicle air conditioning systems may use HFCs (and HCFCs and CFCs to the extent that they have not been completely phased out at later dates), which may result in emissions through leaks. The other primary GHGs (perfluorocarbons and sulfur hexafluoride) are associated with specific industrial sources and are not expected to be associated with the proposed project. In addition, indirect GHG emissions would be associated with the electrical demand of the apartments, the electrical demand resulting from the provision of water to the project site, the electrical demand and process emissions due to wastewater treatment, and the decomposition of solid waste generated by the project.

Using the methods described in **Section 5.4.3.4.1.7**, the construction and operational GHG emissions associated with the project were estimated and are shown in **Table 5.4-3028, Estimated Construction Greenhouse Gas Emissions – Neptune Marina Parcel FF** and **Table 5.4-3129, Estimated Operational Greenhouse Gas Emissions – Neptune Marina Parcel FF**, respectively.

Table 5.4-3028
Estimated Construction Greenhouse Gas Emissions
Neptune Marina Parcel FF

Construction Year	Emissions in Metric Tons CO ₂ E Per Year
2010 2011	1437
2011 2012	7547 16
2012 2013	6165 23

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

Table 5.4-3129
Estimated Operational Greenhouse Gas Emissions
Neptune Marina Parcel FF

Emissions Source	Emissions in Metric Tons CO ₂ E Per Year
Direct GHG Emissions	
Operational (Mobile) Sources	879
Area Sources	262
Total Direct GHG Emissions	1,141
Indirect GHG Emissions	
Electrical Generation	352
Water Supply	8
Wastewater Treatment	21
Solid Waste	15
Total Indirect GHG Emissions	396
Project GHG Emissions:	1,537

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

While the Neptune Marina Parcel FF would result in emissions of GHGs, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally the case that an individual project of this size is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.¹⁰⁷ Accordingly, further discussion of the Neptune Marina Parcel FF project's greenhouse gas emissions and their impact on global climate are addressed in **Section 5.4.4.2, Cumulative Impacts, Global Climate Change.**

5.4.3.4.3.8 Summary of Project Impacts Without Mitigation – Neptune Marina Parcel FF

Demolition, Excavation/Grading and Construction Impacts: Less than significant;

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Significant;

Operational Impacts; Daily Emissions: Less than significant;

¹⁰⁷ California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, (2008) 35.

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant;

Global Climate Change: Less than significant.

5.4.3.4.3.9 Summary of Mitigation; Existing Regulations and Standards Applicable to the Project – Neptune Marina Parcel FF

Mitigation for Demolition, Excavation/Grading and Construction Impacts: The SCAQMD has prepared a list of measures to reduce the impacts of construction-related emissions to the greatest extent possible. Those that could be feasibly implemented during the development of the project to mitigate PM_{2.5} and PM₁₀ emissions are as follows:

- 5.4-7. Develop and implement a construction management plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:
- a. Configure construction parking to minimize traffic interference.
 - b. Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person).
 - c. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable.
 - d. Reroute construction trucks away from congested streets.
 - e. Consolidate truck deliveries when possible.
 - f. Provide dedicated turn lanes for movement of construction trucks and equipment on and off site.
 - g. Maintain equipment and vehicle engines in good condition and in proper tune according to manufacturers' specifications and per SCAQMD rules, to minimize exhaust emissions.
 - h. Suspend use of all construction equipment operations during second stage smog alerts. Contact the SCAQMD at 800/242-4022 for daily forecasts.
 - i. Use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
 - j. Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel if readily available at competitive prices.

- k. Use propane- or butane-powered on-site mobile equipment instead of gasoline if readily available at competitive prices.

5.4-8. Develop and implement a dust control plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:

- a. Apply approved non-toxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas inactive for four days or more).
- b. Replace ground cover in disturbed areas as quickly as possible.
- c. Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, dirt) according to manufacturers' specifications.
- d. Water active grading sites at least twice daily (SCAQMD Rule 403).
- e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.
- f. Provide temporary wind fencing consisting of 3- to 5-foot barriers with 50 percent or less porosity along the perimeter of sites that have been cleared or are being graded.
- g. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code.
- h. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads (recommend water sweepers using reclaimed water if readily available).
- i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- j. Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces.
- k. Enforce traffic speed limits of 15 mph or less on all unpaved roads.
- l. Pave construction roads when the specific roadway path would be utilized for 120 days or more.

5.4.3.4.3.10 Summary of Project Impacts With Mitigation – Neptune Marina Parcel FF

Demolition, Excavation/Grading and Construction Impacts: Less than significant;

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Significant and unavoidable;

Operational Impacts; Daily Emissions: Less than significant;

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant;

Global Climate Change: Less than significant.

5.4.3.4.4 Woodfin Suite Hotel and Timeshare Resort Project

5.4.3.4.4.1 Threshold: The project will generate air pollutant quantities in excess of established SCAQMD emissions thresholds.

Analysis: Development of the Woodfin Suite Hotel and Timeshare Resort would generate air emissions from a wide variety of stationary, area, and mobile sources. Fugitive dust (PM₁₀ and PM_{2.5}) would be generated by on-site construction activities. Once the proposed uses are occupied, emissions would be generated by stationary and area sources such as water and space heaters, landscape maintenance equipment and consumer products. Stationary and area source emissions could also result from the operation of certain types of commercial business, such as restaurants, within the project site. Mobile source emissions would be generated by motor vehicle travel associated with construction activities and occupancy of the proposed development. An assessment of construction and operational emissions are presented below based on the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook*.

Demolition, Excavation/Grading and Construction Impacts: Development of the Woodfin Suite Hotel and Timeshare Resort would require site excavation and grading and construction of the proposed improvements. Parcel 9U North would include the installation of approximately 570 feet of 18-inch diameter water main in Via Marina, including interconnections to existing water system, and all necessary appurtenances (this is not considered part of the Parcel 9U North project but is included in the air quality analysis). These activities would occur over an estimated 204-month period. During this time, emissions would be generated by on-site stationary sources, heavy-duty construction vehicles, construction worker vehicles and generators. Fugitive dust would also be generated during all project development phases (i.e., excavation, grading and construction). Because of the duration of project development and the normal day-to-day variability in construction activities, it is difficult to precisely quantify the daily emissions associated with each phase of the proposed construction activities. **Table 5.4-320, Estimated Unmitigated Demolition, Excavation/Grading and Construction Emissions – Woodfin Suite Hotel and Timeshare Resort**, identifies daily emissions associated with typical equipment for different construction phases based on information provided by the project applicant and default construction values generated by URBEMIS2007 Version 9.2.4. These emissions assume that some of the construction equipment and activities would occur continuously over an 8-hour period. In reality, this would not occur, as most equipment would operate only a fraction of each workday. Therefore, **Table 5.4-302** represents a worst-case scenario for the construction phase of the Woodfin Suite Hotel and Timeshare Resort.

Table 5.4-320
Estimated Unmitigated Demolition, Excavation/Grading and Construction Emissions
Woodfin Suite Hotel and Timeshare Resort

Year	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
2009 2011	65.48 71.45	13.24 20.01	100.45 113.24	0.02	11.62 13.81	5.33 5.98
2010 2012	51.85 56.83	25.59 19.40	79.04 90.16	0.01	4.10 7.6	3.73 4.34
Maximum Emissions in Any Year	65.48 71.45	25.59 20.01	100.45 113.24	0.02	11.62 13.81	5.33 5.98
SCAQMD Thresholds	550	75	100	150	150	55
Exceeds Thresholds?	NO	NO	YES NO*	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.
 Totals in table may not appear to add exactly due to rounding in the computer model calculations.

As shown, construction emissions associated with development of the Woodfin Suite Hotel and Timeshare Resort would barely exceed the thresholds of significance during any construction year. Therefore, proposed construction on the Woodfin Suite Hotel and Timeshare Resort would result in a significant air quality impact. As shown, recommended thresholds for NO_x would potentially likely be exceeded during the construction and asphalt paving phases due to the operation of heavy-duty vehicles. Therefore, proposed construction of the Woodfin Suite Hotel and Timeshare Resort would result in a significant air quality impact for NO_x emissions.

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: An analysis of the impacts of the Woodfin Suite Hotel and Timeshare Resort construction emissions on ambient concentrations of PM₁₀, PM_{2.5}, NO₂ and CO was conducted. This analysis determined the ambient air quality impacts on the day with the highest estimated daily mass emission rates. The methodology and results are described in detail in **Appendix 5.4**. The results of the dispersion modeling analysis are compared to the localized significance thresholds in **Table 5.4-313, Localized Significance Thresholds Analysis – Woodfin Suite Hotel and Timeshare Resort**.

Table 5.4-331
Localized Significance Thresholds Analysis
Woodfin Suite Hotel and Timeshare Resort

Pollutant	Averaging Period	Modeling Results		LST Criteria ¹		Exceeds Threshold?
		µg/m ³	ppm	µg/m ³	ppm	
Respirable Particulate Matter (PM ₁₀)	24 hours	24.55 <u>28.8</u>	NA	10.4	NA	YES
<u>Respirable Particulate Matter (PM₁₀)</u>	<u>Annual</u>	<u>0.97</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Fine Particulate Matter (PM _{2.5})	24 hours	14.35 <u>16.2</u>	NA	10.4	NA	YES
<u>Fine Particulate Matter (PM_{2.5})</u>	<u>Annual</u>	<u>0.73</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Nitrogen Dioxide (NO ₂)	1 hour	203 <u>229</u>	0.121	188	0.10	YES
<u>Nitrogen Dioxide (NO₂)</u>	<u>Annual</u>	<u>1.08</u>	<u>0.00</u>	<u>19</u>	<u>0.01</u>	<u>NO</u>
Carbon Monoxide (CO)	1 hour	1,669 <u>802</u>	1.46	19,454	17	NO
Carbon Monoxide (CO)	8 hours	437 <u>472</u>	0.3841	7,896	6.9	NO

Source: Impact Sciences, Inc.

¹ South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2008.

As shown in **Table 5.4-31**, the construction of the Woodfin Suite Hotel and Timeshare Resort would cause localized significant impacts for PM₁₀, PM_{2.5}, and NO₂.

Operational Impacts; Daily Emissions: Operational emissions would be generated by area, mobile and possibly stationary, sources as a result of normal day-to-day activities on the project site after occupation. The emissions from such sources are primarily associated with fuel combustion, which are addressed in the area and mobile source emission calculations by URBEMIS2007 discussed below. Area source emissions would be generated by the consumption of natural gas for space and water heating devices and food preparation and from the operation of gasoline-powered landscape maintenance equipment and consumer products (e.g., hair spray, deodorants, lighter fluid, air fresheners, automotive products and household cleaners). Mobile emissions would be generated by the motor vehicles traveling to and from the hotel. The Woodfin Suite Hotel and Timeshare Resort area and mobile source emissions as estimated using URBEMIS2007 are shown in **Table 5.4-342, Estimated Operational Emissions without Mitigation – Woodfin Suite Hotel and Timeshare Resort.**

Table 5.4-342
Estimated Operational Emissions without Mitigation
Woodfin Suite Hotel and Timeshare Resort

Emissions Source	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Summertime Emissions¹						
Operational (Mobile) Sources	111.71	10.02	12.48	0.15	24.11	4.68
Area Sources	3.49	1.13	2.32	0.00	0.01	0.01
Summertime Emission Totals:	115.20	11.15	14.80	0.15	24.12	4.69
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO
Wintertime Emissions²						
Operational (Mobile) Sources	106.54	10.21	15.04	0.12	24.11	4.68
Area Sources	1.94	1.01	2.30	0.00	0.00	0.00
Wintertime Emission Totals:	108.48	11.22	17.34	0.12	24.11	4.68
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

¹ "Summertime Emissions" are representative of worst-case conditions that may occur during the O₃ season (May 1 to October 31).

² "Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).

As shown, the Woodfin Suite Hotel and Timeshare Resort at buildout and in full operation would not generate an increase in emissions that would exceed SCAQMD recommended thresholds. Therefore, operation of the proposed Woodfin Suite Hotel and Timeshare Resort would not result in a significant air quality impact.

Operational Impacts; Wind: RWDI prepared a wind study for the proposed project to assess the project's development and/or building placement on wind patterns within the marina, loss of surface winds used by birds and sailboats and general air circulation (this report is included in **Appendix 5.4** in its entirety). The study concluded:

From the results of this wind study, it has been concluded that the proposed Neptune Marina will produce similar wind conditions over a majority of the areas of Marina del Rey. There will be localized areas of altered wind directions and speeds at the west end of Basins B and C. The change in wind conditions noted at the west end of Basins B and C is assumed not to be significant as boats would be under power at this location in the marina. The overall wind conditions predicted with the proposed and expected future developments are similar to those presently experienced in and around the marina and, therefore, the general air circulation patterns and the use of surface winds by birds will not be affected.

Operational Impacts; Additional Indicators: As previously discussed, the SCAQMD lists criteria indicating when a project may create potential air quality impacts. These criteria are listed below along

with an analysis of whether or not the project meets any of them. If a project meets any one of the criteria, project air quality impacts would be significant relative to that criterion.

5.4.3.4.4.2 Threshold: The project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.

Analysis: SCAQMD's *CEQA Air Quality Handbook* indicates that an air quality modeling analysis would need to be performed to identify the project's impact on ambient air quality.¹⁰⁸ In order for a project to be found consistent with the applicable AQMP, the analysis would have to demonstrate that the project's emissions would not increase the frequency or the severity of existing air quality violations, or contribute to a new violation.¹⁰⁹ The CO analysis for traffic emissions described below assesses the potential ambient air quality impacts with respect to this pollutant. URBEMIS2007 was used to calculate project emissions for comparison with thresholds addressing regional significance. The estimated operational emissions due to proposed project were found to be less than significant. Hence, the project is not expected to violate ambient air quality standards or contribute to an existing or projected air quality violation.

5.4.3.4.4.3 Threshold: The project could result in population increases within an area, which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.

Analysis: As discussed earlier in this analysis, the 2007 AQMP is designed to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to achieve the federal 8-hour ozone standard by 2021¹¹⁰ and to minimize the impact on the economy. Projects that are considered to be consistent with the AQMP do not interfere with attainment and do not contribute to the exceedance of an existing air quality violation because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended thresholds. The following analysis discusses the project's consistency with the AQMP.

¹⁰⁸ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-3.

¹⁰⁹ South Coast Air Quality Management District, *CEQA Air Quality Handbook*, p. 12-3.

¹¹⁰ The 2007 AQMP has determined that the basin will still exceed the federal 8-hour ozone standard in 2021 even with implementation of 2007 AQMP control measures.

Projects that are consistent with the projections of population forecasts identified in the Growth Management Chapter of the RCPG are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

As discussed in **Section 5.16, Population and Housing**, the Woodfin Suite Hotel and Timeshare Resort is considered to be consistent with the future population and employment figures projected for the site's census tract. The project would not increase population over that which has been planned for the area, would be consistent with the AQMP forecasts for this area, would be considered consistent with the air quality-related regional plans and should not jeopardize attainment of state and federal ambient air quality standards in the basin.

Another measurement tool in determining AQMP consistency is to determine how a project accommodates the expected increase in population and employment. Generally, if a project is planned in a way that results in the minimization of VMT both within the project and in the community in which it is located and consequently the minimization of air pollutant emissions, that project is consistent with the AQMP.¹¹¹

The nature of the project and its location within the Marina del Rey and surrounding urban areas with supporting commercial and office uses would minimize the need for or distance of some automobile trips, thereby, reducing automotive emissions from such trips. This type of development is consistent with the goals of the AQMP for reducing motor vehicle emissions. In addition, the project site is located in proximity to existing job centers that provide employment opportunities to many Marina del Rey residents. With these job centers, many local residents do not have to commute to distant employment centers. The project site is also linked to various employment, shopping and recreation areas throughout the Los Angeles Basin through the local transit system. Use of these facilities could reduce the need for some motor vehicle trips. As a result of reduced commutes and other vehicle trips, VMT and, consequently, air pollutant emissions could be further reduced.

5.4.3.4.4 Threshold: The project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot.

Analysis: As was done to assess cumulative CO concentrations, the simplified CALINE4 screening procedure was used to predict future CO concentrations at 0 and 25 feet from the intersections in the study area for future traffic with the addition of Woodfin Suite Hotel and Timeshare Resort only. The results of air emissions modeling for the project study area are shown in **Table 5.4-353, Carbon**

¹¹¹ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-5.

Monoxide Concentrations Future with Woodfin Suite Hotel and Timeshare Resort Traffic (2013). The values in this table reflect the ambient air quality impacts of emissions resulting from ambient traffic growth in the area along with traffic resulting from the proposed Woodfin Suite Hotel and Timeshare Resort development as predicted in the traffic impact analysis for the project.¹¹²

Table 5.4-335
Carbon Monoxide Concentrations
Future with Woodfin Suite Hotel and Timeshare Resort Traffic (2013)
(parts per million)

Intersection	LOS	0 Feet		25 Feet	
		1-Hour ¹	8-Hour ²	1-Hour ¹	8-Hour ²
Admiralty Way & Mindanao Way	C	7.4	4.3	6.5	3.7
Lincoln Blvd. & Fiji Way	C	8.4	5.0	7.3	4.2
Lincoln Blvd. & Marina Expressway (SR-90)	C	7.8	4.6	6.8	3.9
Lincoln Blvd. & Mindanao Way	D	7.7	4.5	6.8	3.9
Lincoln Blvd. & Washington Blvd.	F	9.0	5.4	7.7	4.5
Marina Expressway (SR-90 EB) & Mindanao Way	C	6.4	3.6	5.9	3.2
Palawan Way & Admiralty Way	B	7.1	4.1	6.3	3.5
Palawan Way & Washington Blvd.	C	6.8	3.9	6.1	3.4
Via Marina & Admiralty Way	C	5.5	3.0	5.4	2.9
Via Marina & Washington Blvd.	D	7.0	4.0	6.2	3.5

Source: Impact Sciences, Inc. The CO concentration calculations are provided in **Appendix 5.4**.

Note: Not all intersections would operate at a level of service (LOS) that could generate a CO hotspot (i.e., D or worse). However, for consistency purposes all ten intersections that were adversely affected during the "Cumulative with Project" scenario were analyzed for a potential CO hotspot.

¹ State standard is 20 parts per million. Federal standard is 35 parts per million.

² State standard is 9.0 parts per million. Federal standard is 9 parts per million.

As shown, the state and federal 1- and 8-hour CO standards would not be exceeded at any of the modeled intersections at Woodfin Suite Hotel and Timeshare Resort buildout with ambient traffic growth. Therefore, CO hotspots are not predicted to occur near these intersections in the future with the contribution of ambient growth and the proposed project's traffic. The proposed project would not expose sensitive receptors to CO hotspots and its impact with respect to this criterion would be considered less than significant.

¹¹² Crain & Associates, *Traffic Analysis for a Proposed 526-Unit Residential Development, 288-Room Hotel/Timeshare Resort, and 1.46-Acre Public Park on Parcels 10R, FF and 9U in Marina del Rey* (Los Angeles, California: Crain & Associates, May 2007).

5.4.3.4.4.5 Threshold: The project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

Analysis: The uses associated with the Woodfin Suite Hotel and Timeshare Resort are not expected to be a source of odors. The adjacent land uses are such that users of the hotel/timeshare resort would not be subjected to objectionable odors from any surrounding land use. Consequently, no significant impacts from such odors are anticipated.

5.4.3.4.4.6 Threshold: The project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;

Threshold: The project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list;

Threshold: The project could be occupied by sensitive receptors within 0.25 mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

Threshold: The project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of 10 in one million.

Analysis: Construction of the Woodfin Suite Hotel and Timeshare Resort would not result in an accidental release of hazardous materials on site because any lead and asbestos containing materials would be abated and disposed of in accordance with SCAQMD and other local and state regulations. Construction of the Parcel would result in emissions of DPM, which has been designated a TAC by CARB. Typically, cancer risk is assessed for long-term exposure durations (typically 70 years). Construction of the project would result in much shorter-term DPM emissions, however, and exposure would be for less than two years. According to OEHHA, high short-term exposures (i.e., less than a maximum theoretical project life of 70 years) are not necessarily equivalent to low longer-term exposures, as previously discussed. Construction of the Woodfin Suite Hotel and Timeshare Resort would result in maximum on-site DPM emissions of 5.64 pounds per day in 2011 and 3.95 pounds per day in 2012. These emissions would occur at various locations through the Parcel. Because construction of the Woodfin Suite Hotel and Timeshare Resort would result in a maximum exposure duration of DPM for less than two years and that construction activities would take place at different locations throughout the site, it is not expected that the total dose over two years to any single sensitive receptor would result in an exceedance of the SCAQMD maximum individual cancer risk of ten in one million. Also, in accordance with OEHHA policy described above, any numerical evaluation of cancer risk from short-term exposures (i.e., less than

nine years) would introduce uncertainties into the assessment. Furthermore, the SCAQMD does not require a health risk assessment for short-term construction impacts. Therefore, because of the limited exposure duration and temporary nature of the DPM emissions, no significant impacts with respect to the criteria listed above would occur.

The proposed land use of the Woodfin Suite Hotel and Timeshare Resort will not use hazardous materials or emit toxic air contaminants in appreciable quantities. Adjacent land uses would not subject project site visitors or employees to toxic air emissions. Accordingly, no significant impacts with respect to the criteria listed above are expected to occur.

5.4.3.4.4.7 Threshold: The project would generate emissions of greenhouse gases that could contribute to changes in global climate.

Analysis: As previously discussed, the primary source of GHGs in California is fossil fuel combustion. The primary GHG associated with fuel combustion is carbon dioxide, with lesser amounts of methane and nitrous oxide. Accordingly, the construction and operation of the Woodfin Suite Hotel and Timeshare Resort would result in direct emissions of these GHGs due to fuel combustion in motor vehicles, construction equipment, and building heating systems associated with the project. Building and motor vehicle air conditioning systems may use HFCs (and HCFCs and CFCs to the extent that they have not been completely phased out at later dates), which may result in emissions through leaks. The other primary GHGs (perfluorocarbons and sulfur hexafluoride) are associated with specific industrial sources and are not expected to be associated with the proposed project. In addition, indirect GHG emissions would be associated with the electrical demand of the hotel, the electrical demand resulting from the provision of water to the project site, the electrical demand and process emissions due to wastewater treatment, and the decomposition of solid waste generated by the project.

Using the methods described in **Section 5.4.3.4.1.7**, the construction and operational GHG emissions associated with the project were estimated and are shown in **Table 5.4-364, Estimated Construction Greenhouse Gas Emissions – Woodfin Suite Hotel and Timeshare Resort Project** and **Table 5.4-357, Estimated Operational Greenhouse Gas Emissions – Woodfin Suite Hotel and Timeshare Resort Project**, respectively.

Table 5.4-364
Estimated Construction Greenhouse Gas Emissions
Woodfin Suite Hotel and Timeshare Resort Project

Construction Year	Emissions in Metric Tons CO ₂ E Per Year
2009 2011	651 995
20102012	1,168

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

Table 5.4-375
Estimated Operational Greenhouse Gas Emissions
Woodfin Suite Hotel and Timeshare Resort Project

Emissions Source	Emissions in Metric Tons CO ₂ E Per Year
Direct GHG Emissions	
Operational (Mobile) Sources	2,415
Area Sources	460
Total Direct GHG Emissions	2,875
Indirect GHG Emissions	
Electrical Generation	812
Water Supply	23
Wastewater Treatment	61
Solid Waste	21
Total Indirect GHG Emissions	917
GHG Emissions:	3,792

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

While the Woodfin Suite Hotel and Timeshare Resort Project would result in emissions of GHGs, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally the case that an individual project of this size is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.¹¹³ Accordingly, further discussion of the Woodfin Suite Hotel and Timeshare Resort

¹¹³ California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, (2008) 35.

Project's greenhouse gas emissions and their impact on global climate are addressed in **Section 5.4.4.2, Cumulative Impacts, Global Climate Change.**

5.4.3.4.4.8 Summary of Project Impacts Without Mitigation – Woodfin Suite Hotel and Timeshare Resort

Demolition, Excavation/Grading and Construction Impacts: ~~Less than~~ Significant;

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Significant;

Operational Impacts; Daily Emissions: Less than significant;

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant;

Global Climate Change: Less than significant.

5.4.3.4.4.9 Summary of Project Mitigation; Existing Regulations and Standards Applicable to the Project – Woodfin Suite Hotel and Timeshare Resort

Mitigation for Demolition, Excavation/Grading and Construction Impacts: The SCAQMD has prepared a list of measures to reduce the impacts of construction-related emissions to the greatest extent possible. Those that could be feasibly implemented during the development of the project to mitigate NO_x, PM_{2.5}, and PM₁₀ emissions are as follows:

- 5.4-9.** Develop and implement a construction management plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:
- a. Configure construction parking to minimize traffic interference.
 - b. Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person).
 - c. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable.
 - d. Reroute construction trucks away from congested streets.
 - e. Consolidate truck deliveries when possible.

- f. Provide dedicated turn lanes for movement of construction trucks and equipment on and off site.
- g. Maintain equipment and vehicle engines in good condition and in proper tune according to manufacturers' specifications and per SCAQMD rules, to minimize exhaust emissions.
- h. Suspend use of all construction equipment operations during second stage smog alerts. Contact the SCAQMD at 800/242-4022 for daily forecasts.
- i. Use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
- j. Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel if readily available at competitive prices.
- k. Use propane- or butane-powered on-site mobile equipment instead of gasoline if readily available at competitive prices.

5.4-10. Develop and implement a dust control plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:

- a. Apply approved non-toxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas inactive for four days or more).
- b. Replace ground cover in disturbed areas as quickly as possible.
- c. Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, dirt) according to manufacturers' specifications.
- d. Water active grading sites at least twice daily (SCAQMD Rule 403).
- e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.
- f. Provide temporary wind fencing consisting of 3- to 5-foot barriers with 50 percent or less porosity along the perimeter of sites that have been cleared or are being graded.
- g. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code.
- h. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads (recommend water sweepers using reclaimed water if readily available).
- i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.

- j. Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces.
- k. Enforce traffic speed limits of 15 mph or less on all unpaved roads.
- l. Pave construction roads when the specific roadway path would be utilized for 120 days or more.

Construction mitigation measures recommended in the SCAQMD's *CEQA Air Quality Handbook* that were rejected for the proposed project are listed below along with a discussion of why each measure was rejected:

- Prohibit truck idling in excess of 2 minutes: The nature of diesel engines does not lend them to constant turning on and off during construction activities. However, CARB has adopted an ATCM that applies to all diesel-fueled commercial vehicles over 10,000 pounds and that prohibits idling for more than 5 minutes except under limited circumstances. Accordingly, this restriction is required by law and should not be considered mitigation.
- Implement a shuttle service to and from retail services and food establishments during lunch hours: Construction workers typically take a 0.5-hour lunch at various times of the day and eat on-site food that was either brought by the workers (brown bag) or purchased from mobile caterers who travel to the site. This measure would therefore be ineffective in reducing project construction-related emissions.

5.4.3.4.4.10 Summary of Project Impacts With Mitigation – Woodfin Suite Hotel and Timeshare Resort

Demolition, Excavation/Grading and Construction Impacts: ~~Less than SSignificant and unavoidable;~~

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Significant and unavoidable;

Operational Impacts; Daily Emissions: Less than significant;

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant;

Global Climate Change: Less than significant.

5.4.3.4.5 Restored Wetland and Upland Buffer

5.4.3.4.5.1 Threshold: The project will generate air pollutant quantities in excess of established SCAQMD emissions thresholds.

Analysis: Development of the restored wetland and upland buffer would generate air emissions from a variety of area and mobile sources. Fugitive dust (PM₁₀ and PM_{2.5}) would be generated by on-site construction activities. Once the proposed park has been developed, emissions would be generated by area sources such as landscape maintenance equipment. Mobile source emissions would be generated by motor vehicle travel associated with construction and operation of the proposed development. An assessment of construction and operational emissions are presented below based on the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook*.

Demolition, Excavation/Grading and Construction Impacts: Development of the restored wetland and upland buffer would require on-site soil excavation that would be moved on site to create the upland buffer. Additional soil material would also be imported to help create the upland buffer. During excavation and grading activities, as well as construction activities, fugitive dust would be generated. During construction activities, emissions would be generated by on-site stationary sources, heavy-duty construction equipment, construction worker vehicles, and generators. Due to the normal day-to-day variability in construction activities, it is difficult to precisely quantify the daily emissions associated with each phase of the proposed construction activities. **Table 5.4-386, Estimated Unmitigated Demolition, Excavation/Grading, and Construction Emissions – Restored Wetland and Upland Buffer**, identifies daily emissions associated with typical equipment for the various construction phases based on information provided by the applicant and default construction values generated by URBEMIS2007 Version 9.2.4. These emissions assumed that some of the construction equipment and activities would occur continuously for an 8-hour period. In reality, this would not occur, as most equipment would operate only a fraction of each workday. Therefore, **Table 5.4-386**, represents a worst-case scenario for the construction phase of the Restored Wetland and Upland Buffer.

Table 5.4-386
Estimated Unmitigated Demolition, Excavation/Grading, and Construction Emissions
Restored Wetland Park and Upland Buffer

Year	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
2010 <u>2011</u>	9.88 <u>15.16</u>	2.22 <u>2.94</u>	18.66 <u>19.58</u>	0.00 <u>0.00</u>	1.08 <u>1.45</u>	0.86 <u>1.32</u>
Maximum Emissions in Any Year	<u>15.16</u>	<u>2.94</u>	<u>19.58</u>	<u>0.00</u>	<u>1.45</u>	<u>1.32</u>
SCAQMD Thresholds	550	75	100	150	150	55
Exceeds Thresholds?	NO	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: An analysis of the impacts of the restored wetland and upland buffer construction emissions on ambient concentrations of PM₁₀, PM_{2.5}, NO₂, and CO was conducted. This analysis determined the ambient air quality impacts on the day with the highest estimated daily mass emission rates. The methodology and results are described in detail in **Appendix 5.4**. The results of the dispersion modeling analysis are compared to the localized significance thresholds in **Table 5.4-397, Localized Significance Thresholds Analysis – Restored Wetland and Upland Buffer**.

Table 5.4-397
Localized Significance Thresholds Analysis
Restored Wetland and Upland Buffer

Pollutant	Averaging Period	Modeling Results		LST Criteria ¹		Exceeds Threshold?
		µg/m ³	ppm	µg/m ³	ppm	
Respirable Particulate Matter (PM ₁₀)	24 hours	6.79	NA	10.4	NA	NO
<u>Respirable Particulate Matter (PM₁₀)</u>	<u>Annual</u>	<u>0.41</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Fine Particulate Matter (PM _{2.5})	24 hours	6.27	NA	10.4	NA	NO
<u>Fine Particulate Matter (PM_{2.5})</u>	<u>Annual</u>	<u>0.38</u>	<u>NA</u>	<u>4.2</u>	<u>NA</u>	<u>NO</u>
Nitrogen Dioxide (NO ₂)	1 hour	44.38	0.03	188	0.10	NO
<u>Nitrogen Dioxide (NO₂)</u>	<u>Annual</u>	<u>0.42</u>	<u>0.00</u>	<u>19</u>	<u>0.01</u>	<u>NO</u>
Carbon Monoxide (CO)	1 hour	4434	0.39	19,454	17	NO
Carbon Monoxide (CO)	8 hours	1591	0.14	7,896	6.9	NO

Source: Impact Sciences, Inc.

¹ South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2008.

As shown in **Table 5.4-379**, construction of the restored wetland and upland buffer would not generate pollutant concentrations that exceed any of the LST criteria for the proposed project.

Operational Impacts; Daily Emissions: Operational emissions would be generated by area and mobile sources as a result of normal day-to-day activities on the project site following full buildout. The emissions from such sources are primarily associated with fuel combustion, which is addressed in the mobile source emission calculations by URBEMIS2007 discussed below. Area source emissions are typically generated by the consumption of natural gas for space and water heating devices and food preparation, the operation of gasoline-powered landscape maintenance equipment, and consumer products (e.g., hair spray, deodorants, lighter fluid, air fresheners, automotive products, and household cleaners). However, the proposed park would not include residential or commercial uses; therefore, the only area source emissions associated with its day-to-day activities would be the use of landscape maintenance equipment. Mobile source emissions would be generated by the motor vehicles traveling to and from the restored wetland and upland buffer. The restored wetland and upland buffer area and mobile source emissions as estimated using URBEMIS2007 are shown in **Table 5.4-3840, Estimated Operational Emissions without Mitigation – Restored Wetland and Upland Buffer**.

Table 5.4-4038
Estimated Operational Emissions without Mitigation
Restored Wetland and Upland Buffer

Emissions Source	Emissions in Pounds per Day					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Summertime Emissions¹						
Operational (Mobile) Sources	3.63	0.27	0.41	0.00	0.78	0.15
Area Sources	1.55	0.12	0.02	0.00	0.01	0.01
Summertime Emission Totals:	5.18	0.39	0.43	0.00	0.79	0.16
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO
Wintertime Emissions²						
Operational (Mobile) Sources	3.46	0.31	0.49	0.00	0.78	0.15
Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
Wintertime Emission Totals:	3.46	0.31	0.49	0.00	0.78	0.15
Recommended Threshold:	550	55	55	150	150	55
Exceeds Threshold?	NO	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix 5.4**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

¹ "Summertime Emissions" are representative of worst-case conditions that may occur during the O₃ season (May 1 to October 31).

² "Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).

As shown, the restored wetland and upland buffer at buildout and in full operation would not generate emissions that would exceed SCAQMD's recommended thresholds of significance. Therefore, the

operation of the proposed restored wetland and upland buffer would not result in a significant air quality impact.

Operational Impacts; Wind: RWDI prepared a wind study for the proposed project to assess the project's development and/or building placement on wind patterns within the marina, loss of surface winds used by birds and sailboats and general air circulation (this report is included in **Appendix 5.4** in its entirety). The study concluded:

From the results of this wind study, it has been concluded that the proposed Neptune Marina will produce similar wind conditions over a majority of the areas of Marina del Rey. There will be localized areas of altered wind directions and speeds at the west end of Basins B and C. The change in wind conditions noted at the west end of Basins B and C is assumed not to be significant as boats would be under power at this location in the marina. The overall wind conditions predicted with the proposed and expected future developments are similar to those presently experienced in and around the marina and, therefore, the general air circulation patterns and the use of surface winds by birds will not be affected.

Operational Impacts; Additional Indicators: As previously discussed, the SCAQMD lists criteria indicating when a project may create potential air quality impacts. These criteria are listed below along with an analysis of whether or not the project meets any of them. If a project meets any one of the criteria, project air quality impacts would be significant relative to that criterion.

5.4.3.4.5.2 Threshold: The project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.

Analysis: SCAQMD's *CEQA Air Quality Handbook* indicates that an air quality modeling analysis would need to be performed to identify the project's impact on ambient air quality.¹¹⁴ In order for a project to be found consistent with the applicable AQMP, the analysis would have to demonstrate that the project's emissions would not increase the frequency or the severity of existing air quality violations, or contribute to a new violation.¹¹⁵ The CO analysis for traffic emissions described below assesses the potential ambient air quality impacts with respect to this pollutant. URBEMIS2007 was used to calculate project emissions for comparison with thresholds addressing regional significance. The estimated operational emissions due to proposed project were found to be less than significant. Hence, the project is not expected to violate ambient air quality standards or contribute to an existing or projected air quality violation.

¹¹⁴ South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-3.

¹¹⁵ South Coast Air Quality Management District, *CEQA Air Quality Handbook*, p. 12-3.

5.4.3.4.5.3 Threshold: The project could result in population increases within an area, which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.

Analysis: The restored wetland and upland buffer would involve passive recreation and would not result in an on-site population. Therefore, the project would not result in a population increase in excess of SCAG projections contained in the 2007 AQMP and impacts would be less than significant.

5.4.3.4.5.4 Threshold: The project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot.

Analysis: The vehicle trips associated with this project component have been included in the CO hotspots analysis for the Woodfin Suite Hotel and Timeshare Resort, which is located on the same parcel. As shown in **Table 5.4-335**, CO concentrations generated from ambient growth in the area and the proposed project's traffic would not violate any state or federal CO standards. Furthermore, the vehicle trips associated with the restored wetland and upland buffer are also included in the cumulative CO hotspots analysis for the complete project. As shown in **Table 5.4-1715**, the CO concentrations generated by cumulative related projects and the complete proposed project, including the restored wetland and upland buffer would not violate any state or federal CO standards. Therefore, this component of the project would not expose sensitive receptors to CO hotspots and the impact with respect to this criterion is considered less than significant.

5.4.3.4.5.5 Threshold: The project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

Analysis: The passive recreational uses associated with the restored wetland and upland buffer are not expected to be a source of odors. The adjacent land uses are such that project visitors would not be subjected to objectionable odors from any surrounding land use. Consequently, no significant impacts from such odors are anticipated.

5.4.3.4.5.6 **Threshold: The project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;**

Threshold: The project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list;

Threshold: The project could be occupied by sensitive receptors within 0.25 mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

Threshold: The project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million.

Analysis: Construction of the restored wetland and upland buffer would not result in an accidental release of hazardous materials on site because any lead-based paint and asbestos containing materials would be abated and disposed of in accordance with SCAQMD and other local and state regulations. Construction of the restored wetland and upland buffer would result in emissions of DPM, which has been designated a TAC by CARB. Typically, cancer risk is assessed for long-term exposure durations (typically 70 years). Construction of the project would result in much shorter-term DPM emissions, however, and exposure would be for less than two years. According to OEHHA, high short-term exposures (i.e., less than a maximum theoretical project life of 70 years) are not necessarily equivalent to low longer-term exposures, as previously discussed. Construction of the restored wetland and upland buffer would result in maximum on-site DPM emissions of 0.88 pounds per day in 2011 and 1.41 pounds per day in 2012. These emissions would occur at various locations throughout the site. Because construction of the project would result in a maximum exposure duration of DPM for less than two years and that construction activities would take place at different locations throughout the site, it is not expected that the total dose to any single sensitive receptor would result in an exceedance of the SCAQMD maximum individual cancer risk of ten in one million. Also, in accordance with OEHHA policy described above, any numerical evaluation of cancer risk from short-term exposures (i.e., less than nine years) would introduce uncertainties into the assessment. Furthermore, the SCAQMD does not require a health risk assessment for short-term construction impacts. Therefore, because of the limited exposure duration and temporary nature of the DPM emissions, no significant impacts with respect to the criteria listed above would occur.

The proposed land use of the restored wetland and upland buffer project will not use hazardous materials or emit toxic air contaminants in appreciable quantities. Adjacent land uses would not subject

project visitors to toxic air emissions. Accordingly, no significant impacts with respect to the criteria listed above are expected to occur.

5.4.3.4.5.7 Threshold: The project would generate emissions of greenhouse gases that could contribute to changes in global climate.

Analysis: As previously discussed, the primary source of GHGs in California is fossil fuel combustion. The primary GHG associated with fuel combustion is carbon dioxide, with lesser amounts of methane and nitrous oxide. Accordingly, the restored wetland and upland buffer would result in direct emissions of these GHGs due to fuel combustion in motor vehicles and construction equipment associated with the project. Unlike the other project components, no indirect GHG emissions would result because the restored wetland and upland buffer would not be served by water or sewer service and solid waste would be minimal.

Using the methods described in Section 5.4.3.4.1.7, the construction and operational GHG emissions associated with the project were estimated and are shown in Table 5.4-4139, Estimated Construction Greenhouse Gas Emissions – Restored Wetland and Upland Buffer and Table 5.4-402, Estimated Operational Greenhouse Gas Emissions – Restored Wetland and Upland Buffer, respectively.

**Table 5.4-4139
Estimated Construction Greenhouse Gas Emissions
Restored Wetland and Upland Buffer**

Construction Year	Emissions in Metric Tons CO ₂ E Per Year
<u>2011</u>	<u>56</u>
<u>2010</u> <u>2012</u>	<u>1589</u> <u>2</u>

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

Air Quality Impacts and Mitigation Measures: Restored Wetland and Upland Buffer

Table 5.4-420
Estimated Operational Greenhouse Gas Emissions
Restored Wetland and Upland Buffer

Emissions Source	Emissions in Metric Tons CO ₂ E Per Year
Direct GHG Emissions	
Operational (Mobile) Sources	79
Area Sources	1
Total Direct GHG Emissions	80
Project GHG Emissions:	80

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 5.4.

While the restored wetland and upland buffer would result in emissions of GHGs, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally the case that an individual project of this size is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.¹¹⁶ Accordingly, further discussion of the restored wetland and upland buffer project's greenhouse gas emissions and their impact on global climate are addressed in **Section 5.4.4.2, Cumulative Impacts, Global Climate Change.**

5.4.3.4.5.8 Summary of Project Impacts Without Mitigation – Wetland Park Project

Demolition, Excavation/Grading and Construction Impacts: Less than significant;

Demolition, Excavation/Grading and Construction Impacts; Localized Significance Thresholds: Less than significant;

Operational Impacts; Daily Emissions: Less than significant;

Operational Impacts; Wind: Less than significant;

Operational Impacts; Additional SCAQMD Indicators: Less than significant;

Global Climate Change: Less than significant.

¹¹⁶ California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, (2008) 35.

5.4.3.4.5.9 Summary of Project Mitigation; Existing Regulations and Standards Applicable to the Project – Wetland Park Project

Mitigation for Demolition, Excavation/Grading and Construction Impacts: The SCAQMD has prepared a list of measures to reduce the impacts of construction-related emissions to the greatest extent possible. Even though the Wetland Park would not result in any significant air quality impacts, the following measures are recommended to reduce NO_x, PM_{2.5}, and PM₁₀ emissions:

5.4-9. Develop and implement a construction management plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:

- a. Configure construction parking to minimize traffic interference.
- b. Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person).
- c. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable.
- d. Reroute construction trucks away from congested streets.
- e. Consolidate truck deliveries when possible.
- f. Provide dedicated turn lanes for movement of construction trucks and equipment on and off site.
- g. Maintain equipment and vehicle engines in good condition and in proper tune according to manufacturers' specifications and per SCAQMD rules, to minimize exhaust emissions.
- h. Suspend use of all construction equipment operations during second stage smog alerts. Contact the SCAQMD at 800/242-4022 for daily forecasts.
- i. Use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
- j. Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel if readily available at competitive prices.
- k. Use propane- or butane-powered on-site mobile equipment instead of gasoline if readily available at competitive prices.

5.4-10. Develop and implement a dust control plan, as approved by the County, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:

- a. Apply approved non-toxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas inactive for four days or more).
- b. Replace ground cover in disturbed areas as quickly as possible.
- c. Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, dirt) according to manufacturers' specifications.
- d. Water active grading sites at least twice daily (SCAQMD Rule 403).
- e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.
- f. Provide temporary wind fencing consisting of 3- to 5-foot barriers with 50 percent or less porosity along the perimeter of sites that have been cleared or are being graded.
- g. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code.
- h. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads (recommend water sweepers using reclaimed water if readily available).
- i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- j. Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces.
- k. Enforce traffic speed limits of 15 mph or less on all unpaved roads.
- l. Pave construction roads when the specific roadway path would be utilized for 120 days or more.

Construction mitigation measures recommended in the SCAQMD's CEQA Air Quality Handbook that were rejected for the proposed project are listed below along with a discussion of why each measure was rejected:

- Prohibit truck idling in excess of 2 minutes: The nature of diesel engines does not lend them to constant turning on and off during construction activities. However, CARB has adopted an ATCM that applies to all diesel-fueled commercial vehicles over 10,000 pounds and that prohibits idling for more than 5 minutes except under limited circumstances. Accordingly, this restriction is required by law and should not be considered mitigation.
- Implement a shuttle service to and from retail services and food establishments during lunch hours: Construction workers typically take a 0.5-hour lunch at various times of the day and eat on-site food that was either brought by the workers (brown bag) or purchased from mobile caterers who travel to