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Boat Central

Project No. R2008-02340

Draft Environmental Impact Report

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1. Introduction

Pursuant to California *Public Resources Code* §21082.1, the County of Los Angeles Department of Regional Planning (County) has independently reviewed and analyzed information contained in this Environmental Impact Report (EIR) prior to its distribution as a Draft EIR. Conclusions and discussions contained herein reflect the independent judgment of the County as to those issues known at the time of publication.

1.1 Purpose of EIR

This EIR has been prepared on behalf of the County of Los Angeles to evaluate the environmental consequences, the mitigation measures, and the project alternatives associated with the proposed Boat Central dry stack boat storage project. The proposed project requires the following discretionary actions:

- Specific Plan Amendment to change the land use classification from Public Facility to Boat Storage and to add the Waterfront Overlay Zone to the landside
- Specific Plan Amendment to the Water land use category to allow dry stack storage attached to a landside structure at the heights allowed by the land use category on the landside of a parcel
- Local Coastal Program Amendment to allow for the amendments to the Specific Plan
- Coastal Development Permit to permit construction within the Specific Plan area, to allow the pedestrian promenade to be located away from the waterfront, and to approve the spanning of the dry stack boat storage structure over the bulkhead
- Conditional Use Permits required for dry stack boat storage structure, publicly owned uses necessary for convenience or general welfare (Boatwright/Lifeguard facility), and construction of a fueling station on the dock provided primarily to address the needs of boat storage tenants
- Parking permit to permit a parking ratio of 0.36 cars per boat space as well as valet parking
- Setback variance to allow for over-the-water design

It is intended that this EIR be considered in the decision-making process for this project, along with other information presented on the project such as public proceedings. Pursuant to California Environmental Quality Act (CEQA) Guidelines §15200, this EIR will serve the following purposes of review:

1. Sharing expertise
2. Disclosing agency analyses
3. Checking for accuracy
4. Detecting omissions
5. Discovering public concerns
6. Soliciting counter proposals

1.2 Statutory Authority

This EIR has been prepared in accordance with the CEQA statutes, as amended *(Public Resources Code* §21000, et seq.*)*. In accordance with the CEQA Guidelines §15146, the degree of specificity required in an EIR must correspond to the actions sought to be covered by the EIR. In accordance with CEQA Guidelines §15050, the County of Los Angeles Department of Regional Planning is the Lead Agency for the EIR. The County and the applicant have entered into a third-party agreement that allows the applicant to select the subconsultant to prepare an EIR. The subconsultant is responsible solely to the county for such EIR preparation.

This EIR identifies and discusses every significant impact, mitigation measure, and project alternative with relationship to this project, using its best efforts to forecast, while incorporating requests by the public and responsible agencies for consideration of specific mitigation measures and/or alternatives.

The mitigation measures included in this EIR are designed to avoid or reduce the environmental impacts described herein. Mitigation measures are structured in accordance with §15370 of the CEQA Guidelines. This section refers to effects on the physical environment, as opposed to other types of effects (e.g., economic and social effects) that may arise as a result of this project or that may be of interest to the public and decision makers generally. Accordingly, the mitigation measures have been structured to meet the following criteria:

- Avoiding the impact altogether by not taking a certain action or parts of an action
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment

- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
- Compensating for the impact by replacing or providing substitute resources or environments

1.3 CEQA Process

CEQA requires agencies to prepare EIRs and negative declarations "as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment." (CEQA Guidelines §15004(b)). The first step in the CEQA process is the preparation of an Initial Study (IS). This document, along with a Notice of Preparation (NOP), was prepared and distributed for review and comment on January 21, 2009, and is provided as Appendix A. Time limits mandated by state law required a 30-day review period, which ended on February 19, 2009. The purpose of the NOP was for public information and to elicit responses on matters to be studied in the EIR. Table 1.4-1 (beginning on page 1-5 below) contains a summary of all agencies and persons who provided comments on the IS/NOP and indicates where the comment is addressed in the EIR. The comment letters are included in this Draft EIR in Appendix B. The NOP was filed with the Los Angeles County Clerk, posted on the project site, published in *The Argonaut*, a local newspaper, and sent via U.S. mail to approximately 180 public agencies and interested parties.

In addition, a Public Scoping Meeting was held on February 19, 2009, in Marina del Rey to allow local residents and interested persons an opportunity to review the proposed project and provide input on issues to be addressed in the Draft EIR. At that meeting, attendees were notified that they would be given an additional week to send written comments to the County, extending their comment deadline to February 27, 2009. The process for commenting on the Draft EIR was described and attendees were notified that a public meeting would be held by the Board of Supervisors to consider the Draft EIR.

The Scoping Meeting was attended by approximately 17 individuals. Comments were solicited from the meeting attendees. A summary of the comments provided during the scoping meeting is included in Table 1.4-2 (beginning on page 1-10 below), along with a notation of where the issue is addressed in the EIR. The transcript from the Scoping Meeting is included as Appendix C.

This Draft EIR was distributed to affected agencies, surrounding cities, and interested parties for a 45-day review and comment period in accordance with CEQA Guidelines §15087. Upon completion of the 45-day public review period, written responses will be prepared to all comments received on the Draft EIR. These comments and responses, along with the Mitigation Monitoring Program for the project, will constitute the Final EIR for the project. The Final EIR will be considered for

certification by the Board of Supervisors of Los Angeles County. In accordance with CEQA Guidelines, written responses to comments from state agencies will be made available to those agencies at least ten days prior to the public hearing with the Board of Supervisors, at which time certification of the Final EIR would be considered.

It should be noted that the environmental impacts of a project may not always be mitigated to a less than significant level. When this occurs, impacts are considered unavoidable significant impacts. If a public agency approves a project that has significant unavoidable impacts, the Lead Agency shall state in writing the specific reasons for approving the project based on the Final EIR and any other information in the public record for the project. This is termed a "Statement of Overriding Considerations" in accordance with CEQA Guidelines §15093, and is used to explain the specific reasons the benefits of the proposed project make its unavoidable environmental impacts acceptable. The Statement of Overriding Considerations is prepared after the Final EIR has been completed, but before action to approve the project has been taken.

1.4 Incorporation by Reference

Certain documents are to be incorporated by reference into this Draft EIR pursuant to CEQA Guidelines §15150. Where a document is incorporated by reference, its pertinent sections will be briefly summarized and referenced in the relevant sections in this EIR. This EIR incorporates by reference the following documents:

- County of Los Angeles General Plan, November 1980
- Los Angeles County Planning and Zoning Code
- Marina del Rey Land Use Plan (a component of the Los Angeles County Local Coastal Program)
- Marina del Rey Specific Plan (Implementing Plan of the Local Coastal Program)
- South Coast Air Quality Management District CEQA Air Quality Handbook

Copies of all documents incorporated by reference are available for public review at the County of Los Angeles, Planning Department, 320 West Temple Street, Los Angeles, California.

Table 1.4-1 Comment Letter Summary

Commenter	Comment	Where Comment Addressed in EIR
Santa Monica Bay Restoration Commission – Sean Bergquist	Culvert between site and Ballona wetlands will be impacted by docks related to spawning, habitat linkage	Section 5.3 – Biological Resources
	Net increase in boats in marina resulting in decrease in water quality	Section 5.6 – Hydrology and Water Quality
	Discuss impacts to the hydraulic connection to the wetland	Section 5.3 – Biological Resources
South Coast Air Quality Management District– Steve Smith	The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project.	Section 5.2 – Air Quality, Table 5.2-6 through Table 5.2-13
	The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds.	Section 5.2 – Air Quality, Table 5.2-6 through Table 5.2-13
	The SCAQMD recommends that the lead agency perform a localized significance analysis by either using the localized significance thresholds (LSTs) developed by the SCAQMD or performing dispersion modeling as necessary.	Section 5.2 – Air Quality
	It is recommended that a mobile source health risk assessment be performed if the project generates or attracts vehicular trips.	Section 5.11 – Transportation and Traffic
	An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.	Section 5.2-3 – Air Quality, page 5-37
Native American Heritage Commission– Dave Singleton	The Native American Heritage Commission recommends the following: Contact the appropriate California Historical Resources Information Center (CHRIS) for possible recorded sites.	Section 5.7 – Land Use and Planning
	The Native American Heritage Commission (NAHC) performed a Sacred Lands File (SLF) search of the project 'area of potential effect (APE) and the results were that no known Native American Cultural Resources were identified within one-half mile of the APE. Local tribal contacts on the attached list should be contacted to get their input on potential impact of the project (APE) on cultural resources. Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidently discovered archeological resources per CEQA Section 15064.5(f). Lead agencies should include in their mitigation plan provision for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans. A culturally-affiliated Native American tribe may be the only source of information about a Sacred Site/Native American cultural resource.	Section 2.6 – Impacts Found Not To Be Significant
Santa Monica Bay Restoration Commission – Grace Lee	The fuel dock will significantly contribute to non-point source pollution in marina waters. Sources of pollution include overflow/backsplash from fueling boats (this spills out of air vents and/or from the fuel nozzle), potential spills from oil changes, and spills from other boat maintenance activities. Please consider these impacts in the EIR.	Section 5.6 – Hydrology and Water Quality
	Mitigation should include pollution prevention services such as a bilge pad exchange program, used oil/filter collection, HHW collection, and bilge pump out.	Section 5.6 – Hydrology and Water Quality, Table 5.6-1, page 5-165

Table 1.4-1 Comment Letter Summary

Commenter	Comment	Where Comment Addressed in EIR
	Provide a sufficient number of recycling bins, trash bins, and cigarette butt bins for people using the promenade.	Section 5.6 – Hydrology and Water Quality, Table 5.6-1, page 5-165
	There will be increased boat traffic in the area. This issue needs to be considered in the EIR and mitigation should be included (i.e., recycling bins, trash bins, cigarette bins, fish line recycling, fish cleaning station).	Section 5.6 – Hydrology and Water Quality, Table 5.6-1, page 5-165
	The dry stack area should include lockers for boaters to properly store HHW like antifreeze, paints, oil filters, oil, solvents, etc.	Section 5.6 – Hydrology and Water Quality, Table 5.6-1, page 5-165
	The boater lounge would be an ideal location for a boating education kiosk.	Section 5.6 – Hydrology and Water Quality, Table 5.6-1, page 5-165
	Maintenance of the vessel sewage pump out station facility is important.	Section 5.6 – Hydrology and Water Quality, Table 5.6-1
	The tidal culvert could be a sensitive corridor for fish entering Ballona Wetlands from Basin H	Section 5.3 – Biological Resources
Coastal Conservancy– Mary Small	The existing channel that flows under the project site is the only unrestricted tidal connection to the wetlands.	Section 5.3 – Biological Resources
	Any potential impacts to the channel and the biota it supports needs to be analyzed in the EIR.	Section 5.3 – Biological Resources
	Although the channel is not a "USGS Blue Line Stream", impacts to its water quality and biological resources should be addressed.	Section 5.3 – Biological Resources
	If the project affects the existing tidal channel or the ability to widen that channel, it will impact the restoration options.	Section 5.3 – Biological Resources
	There may be impacts on water quality flowing into the Ballona Wetlands Ecological Reserve as a result of the proposed project even if the channel itself is not changed.	Section 5.3 – Biological Resources
Alston and Bird LLP– Edward J. Casey	Concern that the Project Objectives in the IS/NOP preclude meaningful analysis of alternatives to the project.	Chapter 6 – Alternatives Analysis
	The county is urged to adopt Project Objectives that will foster an analysis of alternatives to the Proposed Project that reduce environmental impacts and create greater economic benefits.	Chapter 6 – Alternatives Analysis
	One alternative that should be analyzed in detail is the construction of a dry stack facility not built out over the harbor.	Chapter 6 – Alternatives Analysis
	A second alternative that should be analyzed would utilize an off-site parcel (Parcel 53). This would allow for a larger number of boat storage spaces and provide for the construction of a more traditional design. By combining the parcels it would not be necessary to construct a building over the water.	Chapter 6 – Alternatives Analysis
Tongva Ancestral Territorial Tribal Nation– John Tommy Rosas	Disturbed by failures to perform SB 18 tribal consultation as required.	Letter sent to Sam Dunlap, Tribal Secretary, March 2, 2009
	The County needs to contact Mr. Dave Singleton on the NAHC of the Governor's office ASAP.	Letter sent to Anthony Morales, Chairperson, Gabrielino/Tongva San Gabriel Band of Mission Indians, March 2, 2009
	Tongva Ancestral Territorial Tribal Nation (TATTN) is working with the state to restore Ballona Wetlands and the project interferes with possible channel and tidal waters.	
	NOP fails to address our existence, site located on or next to the proposed project.	

Table 1.4-1 Comment Letter Summary

Commenter	Comment	Where Comment Addressed in EIR
	The boat wash down will further pollute already impaired waters, concerns regarding water quality in the marina.	Section 5.6 – Hydrology and Water Quality
	TATTN objects to excavation because it will be a site disturbing activity.	Chapter 2 – Executive Summary
	Traffic is also a concern.	Section 5.11 – Transportation and Traffic
	TATTN objects and opposes this project and the illegal current status of this CEQA process.	Chapter 2 – Executive Summary
Susan (last name not provided)	After community meetings are held, residents and other interested parties should have more than one day to respond to the County with comments.	Section 1.3 – CEQA Process
	Parcels on the Redevelopment Status map provided by Beaches & Harbors are not labeled correctly, or they are stated incorrectly in the article. A scale drawing of the proposed project would be helpful.	Exhibit 4.3-1 – Proposed Site Plan
Marti Meyers – Marina del Rey Resident	The biggest issue is the lack of a "master plan" for the vision of the marina.	Chapter 3 – Project History and Background
	Concern over traffic and views of the water and removal of pedestrian walkways.	Section 5.1 – Aesthetics Section 5.11 – Transportation and Traffic
	Resident/visitors to Marina del Rey do not want a boat storage facility that is huge like an airport hangar.	Section 5.1 – Aesthetics
	Boat storage of this size should move to Wilmington, San Pedro, Long Beach or Los Angeles ports. Agrees that dry storage should be centralized but not at the recommended specifications.	Chapter 3 – Project History and Background Chapter 6 – Alternatives Analysis
	There needs to be further clarification regarding the "sheriff's Boatwright office in a two-story building." Is the plan to have two sheriff locations?	Section 4.3 – Project Description Section 5.1 – Aesthetics Section 5.9 – Public Services
Gerald Sobel	The dry stack is an insult to Marina del Rey. The marina is being destroyed by more high rise over-development, which has ruined it for recreational boating.	Chapter 3 – Project History and Background
	A 1954 congressional act was used to authorize building Marina del Rey and it expressly forbid commercial development of this public park for private profit.	Section 5.10 – Recreation
LA Mariner– Jon Nahhas	Boat Central LLC had project 345 slips in the 20 foot-35 foot range in plans dated December 2008. The plans have changed to include slips above the 35 foot range.	Chapter 4 – Project Description Section 5.10 – Recreation
	The Coastal Commission has identified boat 35 foot or less as "affordable"-the rates the facility would need to charge would exceed the "affordable range" and would not cater to the general public.	Chapter 3 – Project History and Background Section 5.10 – Recreation
	The project does not take into consideration the 60-65% of sailboats currently in the harbor. The boat storage facility severely impacts much needed land space for alternative boat-storage needs.	Section 4.2 – Existing Conditions

Table 1.4-1 Comment Letter Summary

Commenter	Comment	Where Comment Addressed in EIR
	Building 97 feet over the water is against the Costal Act and to discourage recreational boating in the harbor.	Section 4.3 – Project Description Section 5.7 – Land Use and Planning
	The facility would disrupt the public boat launch ramp and hinder access.	Section 5.10 – Recreation
County of Los Angeles Department of Public Works	The Environmental Impact Report should discuss the collection and disposal of the additional wastewater that would be generated by the proposed project, especially its impact on the available capacity of the existing local sewer lines for both peak dry- and wet-weather flows.	Section 5.12 – Utilities and Service Systems
	Based on the recent Marina Sewer Improvement Study conducted by our Design Division, the existing sewer should be able to accommodate the proposed project.	
County of Los Angeles – Fire Department	Distance to Fire Station 110. Station is approximately one mile from project site.	Section 5.9 – Public Services
	Development must comply with all applicable code and ordinance requirements for construction, access, water main, fire flows and fire hydrants. Conditions will be identified when plans are submitted for review.	Section 5.9 – Public Services
	Address potential impacts related to:	
	- erosion control	Section 5.6 – Hydrology and Water Quality, Table 5.6-1
	- watershed management	Section 5.6 – Hydrology and Water Quality
	- rare and endangered species	Section 5.3 – Biological Resources
	- vegetation	Section 5.3 – Biological Resources
	- fuel modification for Very High Fire Hazard Severity Zones	Section 5.5 – Hazards and Hazardous Materials
	- archaeological and cultural resources	Chapter 2 – Executive Summary
	- County Oak Tree Ordinance	Section 5.3 – Biological Resources
Chris Corey Email received 2/25/09	Stacking of boats and reduced access represents diminution of service	Section 4.3 – Project Description
	Should be priced at or below fee paid for a traditional slip	N/A – Not a CEQA issue
	Expand the concierge aspect of the business to the mast-up storage facility currently provided by the County	Section 5.10 – Recreation
	The facility could be an enhancement to the visual aspects of the property	Section 5.1 – Aesthetics
	Amount of boat traffic in Basin	Chapter 4 – Project Description
	Earthquake safety	Section 5.4 – Geology and Soils
Nancy Marino – We Are Marina del Rey	Lack of an EIR for the comprehensive redevelopment in Marina del Rey (Marina Project) by rendering inoperative the certified LCP - Piecemealing redevelopment - Comprehensive LCP revision required to legitimately claim EIR equivalence for the Marina Project	Chapter 3 – Project History and Background
	Failure to inform the public of the full scope of the Marina Project - County refusal to present a comprehensive plan for the Marina Project	Chapter 3 – Project History and Background

Table 1.4-1 Comment Letter Summary

Commenter	Comment	Where Comment Addressed in EIR
	Suppression of the public's right to full participation in planning decisions including altering the overall land use configuration of the Marina Project - Coastal Act Section 30006 – Legislative Findings and declarations; public participation	Section 1.3 – Introduction – CEQA Process Chapter 3 – Project History and Background
	Project will have a detrimental effect on boating due to the proposed conversion of Mothers Beach into a hotel/ commercial zone and concentration of public use in the area of Basin H. Boating will bottleneck on Basin H.	Chapter 3 – Project History and Background Chapter 4 – Project Description
	A maximum load/unload capacity of 11 boats per hour will result in boaters having limited or no access to their boats on popular weekends and holidays	Section 4.3 – Project Description
	Additional dry storage is desirable but only if it adds capacity and is not at the expense of small wet slips or other dry storage facilities. Small wet slips are being decimated throughout the Marina.	Section 5.10 – Recreation
	Landside traffic will be horrendous in peak recreational periods	Section 5.11 – Transportation and Traffic
	The concentration of parking needs will likely result in a parking structure to accommodate visitors which would further destroy views to and from the water	Section 5.11 – Transportation and Traffic
	We are categorically opposed to any building built out over the water.	Section 4.3 – Project Description Section 5.7 – Land Use and Planning
	The carbon footprint of shipping recycled plastic is an affront to the idea of a "green" building	Chapter 4 – Project Description
	The placement of the facility is detrimental to the Ballona Wetlands indicating a relocation to avoid impacts to habitat and wildlife in the vicinity	Section 5.3 – Biological Resources
	Additional dry storage dispersed throughout the marina near existing public parking lots is a more desirable solution that will lead to greater recreational boating opportunities, better public access and a more robust economy	Section 5.7 – Land Use and Planning Chapter 6 – Alternatives Analysis

Table 1.4-2 Scoping Meeting Comments

Comment	Where Comment Addressed in EIR
Early morning impact of shade/shadow on rowers	Aesthetics
View disturbances to and from marina	Aesthetics
Consistency with LCP view policies (E1 and E3 – view and scenic drive)	Aesthetics
Visual effect on entry to marina	Aesthetics
Aesthetic compatibility of colors	Aesthetics
Emissions from concentration of motorized boats (idling emissions – peak and other)	Air Quality
Location of ESHA (roosting and nesting birds)	Biological Resources
Water Quality effects on marine life	Biological Resources
Structural integrity of bulkheads	Geology and Soils
Previous Army Corps recommendations/uniform building code	Geology and Soils
Potential rise in sea level	Geology and Soils
Grading import/export	Geology and Soils
Phase I Preliminary Environmental Site Assessment: -Clearly identifies how determination of hazardous material is made -Identify handling of hazardous materials during construction -Responsibility for enforcement	Hazards and Hazardous Materials
Depth of channel per Corps standards	Hazards and Hazardous Materials
Asbestos	Hazards and Hazardous Materials
Handling and disposal of hazardous materials	Hazards and Hazardous Materials
How is compliance/monitoring of existing physical and regulatory setting determined	Hydrology and Water Quality
LCP Amendment: -Mole roads scenic drive -Bowl concept – analysis of structure heights in relation to gradation	Land Use and Planning
CDP: individual or comprehensive planning/amendment proposal to CCC	Land Use and Planning
Crowding of launch ramp	Recreation
DCB review	Chapter 3 – History and Background
RFP process	Chapter 3 – History and Background
Change in Land Use relationships	Land Use and Planning
Net change in boat slips and size of slips/marina wide slip mix quantity effects on number of boat slips/min. number of boats, parking, park availability and coastal access	Recreation
Displacement of public facilities (analyze the impacts of where it ends up)	Public Services
Public art	Land Use and Planning
Public access to shoreline	Land Use and Planning
Analysis of alternative sites for Admin building	Public Services
Will slips be used for recreation or for sale of boats	Project Description
Availability of pumpout stations and restrooms	Project Description
Modern OSHA-approved equipment and mitigation	Noise
On-site noise monitoring – limitation on hours of construction	Noise
Harmonic frequency impacts	Noise
Noise effects of wind on structure	Noise
Effects of noise on Burton Chace Park/weekends	Noise
Analyze construction vehicles and equipment	Noise
Seawall monitoring from vibration	Noise

Table 1.4-2 Scoping Meeting Comments

Comment	Where Comment Addressed in EIR
Impacts on parking need to address potential effects on coastal access (cumulative parking demand) where will it be met/long term needs and surrounding community	Transportation/Traffic
Parking demand – long term and phasing	Transportation/Traffic
RV parking	Transportation/Traffic
Phasing of traffic improvements	Transportation/Traffic
Analyze Admiralty Way, Via Marina, and Washington	Transportation/Traffic
Need to insure feasibility and implementation of mitigation	Inventory of Mitigation Measures
Need to provide for non-vehicular transportation – bicycles, bus turnouts, pedestrian crosswalks	Transportation/Traffic
Grey water recycling	Utilities and Service Systems
Water supply availability	Utilities and Service Systems
Landscape use	Utilities and Service Systems
Pumpout stations	Project Description
Will there be public access?	Project Description
Need for public restrooms	Project Description
Report log compliance for disposal of hazardous waste/pumpout stations	Utilities and Service Systems
Power connections to boats	Utilities and Service Systems
Sewer lines: requirement for second sewer line?	Utilities and Service Systems
Safety of utility systems	Utilities and Service Systems
Nine projects pending regulatory approval	Cumulative Impacts
Need to ensure that cumulative list is complete	Cumulative Impacts
Need to ensure analysis is fair and unbiased	Cumulative Impacts
Need to determine if the project had independent utility or is part of a larger project	Cumulative Impacts
Balance between recreational, residential, and commercial uses	Cumulative Impacts
Land only	Project Alternatives
Other parcels	Project Alternatives
No project	Project Alternatives
Smaller project	Project Alternatives
Multiple locations	Project Alternatives
Other recreational uses	Project Alternatives

1.5 Project Alternatives

Chapter 6, Alternatives Analysis presents alternatives that have been designed to alleviate identified environmental problems. These alternatives consist of the No Project Alternative, the Landside Only Alternative, the Reduced Building Height/Same Building Footprint Alternative, and the Alternate Land Use/Public Facility Alternative. Each of the alternatives has been measured against the stated objectives of the proposed project and in accordance with CEQA Guidelines §15126.6, the alternatives must be able to attain most of the basic objectives of the project.

These alternatives focus on approaches capable of eliminating significant environmental impacts associated with the proposed project including, but not limited to, air quality, noise and aesthetics, or reducing them to a level of insignificance. Consistent with CEQA Guidelines §15126.6, an EIR need only address those alternatives that are actually capable of reducing or eliminating one or more significant physical environmental effects brought on by the project, as proposed. A comprehensive analysis of project alternatives, including the identification of the environmentally superior alternative, is provided in Chapter 6, Alternatives Analysis.

1.6 Thresholds of Significance

The state does not require that local agencies adopt their own thresholds of significance. In this regard, the County of Los Angeles relies on the state's CEQA Environmental Checklist. In addition, in some areas, the County relies on its General Plan, codes and ordinances as thresholds of significance.

1.7 Areas of Controversy/Issues to be Resolved

CEQA Guidelines §§15123(b)(2) and (3) require that the EIR summary identify areas of controversy known to the lead agency, issues raised by agencies and the public and issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts.

Areas of public controversy and issues to be resolved which are known or which have been called to the attention of the County during the Initial Study/NOP process are noted below. Because each issue to be resolved involves some degree of public controversy, the distinction between the area of public controversy and an issue to be resolved is not critical.

Areas of public controversy raised during the scoping meeting and the IS/NOP review periods are:

- Need for additional mast up-capable sailboat storage
- Disruption of public launch ramp adjacent to site
- Eliminate portion of structure that extends over the water
- Analysis of alternative sites within the marina, smaller project, other recreational uses for site
- Reduction of views and pedestrian walkways
- Protection of Native American cultural resources
- Impacts to the culvert between the marina and the Ballona Wetlands
- Water quality impacts due to additional boats
- Air quality impacts due to construction/operation, idling boats
- Shade/shadow impacts on biological resources and boaters/rowers
- Environmentally Sensitive Habitat/roosting and nesting birds
- Grading import/export quantities
- Structural integrity of bulkhead
- Handling/disposal of hazardous construction materials/enforcement
- Adherence to Local Coastal Program goals and policies
- Net change in boat slip numbers and sizes in marina
- Public access to shoreline
- Noise impacts on Burton Chace Park
- Additional intersection analysis
- Provision for non-vehicular transportation
- Cumulative demand for parking for coastal access
- Availability of pump-out stations/restrooms
- Provision of additional utility service – sewer, electric
- Balance between recreational, residential and commercial uses

It is recognized that other issues may be raised during the review and hearing process that were not and could not have been known at the time of the publication of the Draft EIR. These will be addressed to the extent required by law in the preparation of the Final EIR and in the deliberation process.

1.8 Disagreement among Experts

This Draft EIR contains substantial evidence to support all of the conclusions presented herein. That is not to say that there will not be disagreements with these conclusions. The CEQA Guidelines and more particularly, case law, clearly provide the standards for treating disagreement among experts. Where evidence and opinions of experts conflict on an issue concerning the environment, and the agency knows of these controversies in advance, the EIR must acknowledge the controversies, summarize the

conflicting opinions of the experts and include sufficient information to allow the public and decisions makers to take intelligent account of the environmental consequences of their action.

It is also possible that evidence will be presented during the Draft EIR review that might create disagreement. This evidence is considered by the decision makers during the public hearing process.

In rendering a decision on a project where there is disagreement among experts, the decision makers are not obligated to select the most conservative or environmentally protective option. They may give more weight to one expert than another, and resolve a dispute among experts through the exercise of their collective good faith judgment. In their proceedings, they must consider the comments received and address objections, but need not follow said comments or objections so long as they state the basis for their decision and that decision is supported by substantial evidence.

1.9 Availability of Draft EIR, Technical Appendices, and Administrative Record

The Draft EIR, the Technical Appendices, and the Administrative Record for the proposed project are available at the County of Los Angeles, 320 W. Temple Street, Los Angeles, California and the County Department of Beaches & Harbors, 13837 Fiji Way, Marina del Rey, California.

The Draft EIR may be viewed on the County's website at http://planning.lacounty.gov/case.

Reference copies are available for review at the Lloyd Taber-Marina del Rey Library at 4533 Admiralty Way, Marina del Rey.

2. Executive Summary

2.1 Project Location

The project site is located in the County of Los Angeles within Marina del Rey at 13483 Fiji Way on Basin H, west of the intersection of Admiralty Way and Fiji Way. Access to the marina is via the SR-90 Freeway and Lincoln Boulevard. Marina del Rey is a highly urbanized area and is home to approximately 5,000 pleasure boats and a variety of land uses, including hotels, restaurants, office and commercial centers, residential uses and public parks, beaches, and bike paths.

2.2 Project Description

The project site is approximately 4.2 acres in size (3.09 acres of land and 1.11 acres of water) and is comprised of 2 parcels, referred to as Parcel 52 (also referred to as Parcel 52R in County documents) and Parcel GG. The waterside portion of the site is located within Basin H of the marina, which is the first easterly basin within the marina. The topography of the site ranges from a height of 15 feet above sea level at the southern portion of the site, sloping down to a height of 7 feet above sea level at the northern portion of the site at the water.

Parcel 52 is oriented to the west and is currently developed with a temporary public parking lot containing 245 parking spaces. The lot is ungated and unsigned at the time of this writing, and the spaces are available to the public at no charge. Parcel GG is oriented to the east and is currently developed with the Marina del Rey Sheriff's Boatwright/Lifeguard facility, a maintenance shop, and a maintenance/storage yard. Additionally, five office trailers used by the Los Angeles County Department of Beaches & Harbors are located on the site. In addition to the landside parcels, a portion of the water that fronts Parcel 52 and Parcel GG is also a part of the project site. The waterside uses include a dock utilized by charter fishing ventures and a separate dock utilized by the Sheriff's Department.

The Boat Central project involves five main development components, including a dry stack boat storage structure, mast-up-capable sailboat storage, an office and customer lounge, a Sheriff's Boatwright/Lifeguard facility, and a public promenade and viewpark. The Boat Central project is one of the first of its kind on the west coast, and the project would provide a significant number of boat slips to Marina del Rey in a space-saving fashion without displacing existing wet slips or the additional water area that would be required to accommodate 375 slips. Specifically, the project would include 345 dry stack boat storage spaces, 28 spaces for boat trailers, and 30 surface

spaces for trailered boats, including mast-up sail boats. The five main components of the project are described in detail in Section 4, Project Description. The following permits and approvals from the County of Los Angeles are being sought for the project: a Local Coastal Program Amendment (Land Use Plan), Specific Plan Amendments (Marina del Rey Local Implementation Plan), a Conditional Use Permit for the Dry Stack Facility and Boatwright Building, a Coastal Development Permit, a Parking Permit, and a Setback Variance.

On November 3, 2011, the California Coastal Commission (CCC) approved an amendment to the Marina del Rey Local Coastal Program. The project site was included as one of the "pipeline projects" identified in the amendment. The amendment will:

- Change the land use categories for Parcels 52 and GG to "Boat Storage" with a Waterfront Overlay Zone,
- Add dry stack boat storage connected to landside structure to uses permitted in the "Water" land use category, and
- Change the maximum height of any structure in the "Water" land use category.

The Los Angeles County Board of Supervisors' approval occurred on November 29, 2011. The CCC is expected to approve the LCP Amendment as a consent calendar item in early 2012. The statute of limitations must run on the CCC action, a 60-day period after the final CCC action. Final approval of the amended LCP would eliminate the amendments contemplated herein.

2.3 Discretionary Actions

This Draft EIR is intended to provide complete and adequate CEQA coverage for all actions and approvals associated with ultimate development of the proposed project, including but not limited to:

- Certification of a Final Environmental Impact Report
- Marina del Rey Local Coastal Program Amendment – Land Use Plan and Local Implementation Plan (Marina del Rey Specific Plan)
- Conditional Use Permit for Boat Storage and Boatwright/Lifeguard facility
- Conditional Use Permit for Dockside Fueling
- Parking Permit
- Setback Variance
- Section 404 Clean Water Act permit

- Coastal Development Permit for landside
- Coastal Development Permit for waterside issued by the California Coastal Commission

2.4 Summary of Environmental Impacts

Chapter 5, Environmental Setting, Impacts and Mitigation Measures provides a detailed analysis of the potential impacts of the proposed project related to aesthetics, air quality, biological resources, geology and soils, hazardous and hazardous materials, hydrology and water quality, land use and planning, noise, public services, recreation, transportation and traffic, and utilities and service systems. Chapter 6 – Alternatives Analysis provides an analysis of several alternatives to the project as it is currently proposed. Chapter 7 – Summary of Cumulative Impacts, and Chapter 8 – Growth-Inducing Impacts describe the potential for the proposed project to result in cumulative and growth-inducing impacts, respectively. Chapter 9 – Inventory of Mitigation Measures provides a complete list of mitigation measures proposed for the project under this Draft EIR. Chapter 10 – Inventory of Unavoidable Adverse Impacts summarizes the potentially significant adverse impacts of the proposed project that cannot be avoided or mitigated to below a level of significance.

2.5 Matrix of Mitigation Measures

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
Aesthetics	The dry stack boat storage structure will add a new height and mass component to Fiji Way. With the proposed project, approximately 50% of the site will remain open and will provide view corridors to the water. Light levels at night in the boat storage structure will be adequate to provide safe working levels for the crane operation and staff. The parking lot will be lighted at minimum legal levels with cutoff fixtures that direct light down.	AE-1 Prior to issuance of building permits, a Final Landscape Plan for the project shall be approved by the County of Los Angeles Department of Regional Planning. The Final Landscape Plan shall include drought-tolerant species to the maximum extent feasible, and shall prohibit invasive species such as Mexican fan palms. AE-2 After completion of the project and landscaping installation, the project applicant shall ensure that the landscaping/planting within the view corridors between the bulkhead and Fiji Way will be pruned on a regular basis for the life of the project to ensure that a view will remain between the vehicles and the trees in the parking lot. AE-3 Prior to the issuance of a Certificate of Occupancy, the project applicant shall ensure that all exterior lighting in the parking lot shall be designed and located so that all direct rays are confined to the property. Lighting shall be designed to minimize visibility of light sources by directing lighting on-site and not illuminating areas outside property boundaries.	With incorporation of Mitigation Measures AE-1 through AE-3, impacts would be less than significant, with the exception of height and massing, which will result in a significant, unavoidable adverse impact.
Air Quality	The proposed project, in conjunction with growth and development within the SCAB, would hinder conformance with the regional AQMP. Because the SCAB has been classified as a non-attainment air basin for compliance with the federal Clean Air Act, the proposed project will have an incremental impact on cumulative air quality conditions. However, emissions modeling for the construction of the proposed project indicate	AQ-1 During construction, the Applicant shall ensure that standard construction practices as set forth in the SCAQMD Handbook shall be implemented. AQ-2 During construction, the Applicant shall ensure that all construction equipment is properly serviced and maintained in good operating condition to reduce emissions. The SCAQMD requires that fuel injection timing be retarded two degrees from the manufacturer's recommendation and use high-pressure injectors.	Mitigation measures will reduce construction and operation emissions to below a level of significance. GHG emissions and impacts to global climate change will remain significant and unavoidable.

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
	that the project emissions should remain below levels of significance for each of the air quality constituents for which the SCAB is currently in non-attainment. Short-term construction and long-term operation impacts from GHG emissions will be significant.	AQ-3 During construction, the Applicant shall ensure that low emission mobile construction equipment is used (replace diesel-powered equipment with gasoline-powered equipment), where feasible, during the preparation, grading, excavation, and construction of the proposed project components. AQ-4 During construction, the Applicant shall ensure that proposed project-specific sites are watered and that construction trucks pass through a shaker grate to remove excess dirt prior to exiting the site. AQ-5 During construction, the Applicant shall ensure that when soil is transported the operator: 1) employs water to moisten earthen surface prior to disturbance and immediately after disturbance; 2) controls runoff so it does not saturate the surface of unpaved haul roads and cause track-off; and 3) employs watering as an emergency measure during high wind events to stabilize active dust surfaces including but not limited to soil piles, unpaved roads and unpaved parking areas. AQ-6 During construction the Applicant shall ensure that water-wetting methods and soil-binders are used on exposed soil stockpiles, unpaved roads, and unpaved parking areas. Active grading areas shall be watered at least two times each workday, as needed, to prevent visible plumes from exiting the project site. AQ-7 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, nontoxic chemical soil stabilizers such as Soil Sement® are applied, according to the manufacturer's specification, to all inactive construction areas, defined as previously graded areas, which are inactive for 96 hours or more.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		AQ-8 During construction, the Applicant shall ensure that during site preparation, grading, excavation and construction, public streets are swept if silt is deposited on these roads from construction activities within the project site. AQ-9 During construction, the Applicant shall ensure that site preparation, grading, excavation, and construction operations are suspended when wind speeds exceed 25 miles per hour. AQ-10 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, low sulfur fuel is used for stationary construction equipment. AQ-11 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, on-site power sources are used rather than temporary diesel or gasoline ICE generators when feasible. AQ-12 During construction, the Applicant shall ensure that low VOC coatings, solvents, and asphalt be used where feasible. AQ-13 During construction and operation, the Applicant shall ensure that idling of delivery trucks shall be kept to a minimum and, where feasible, should be limited to no longer than five minutes. AQ-14 During operation, the facility operator shall ensure that idling of boats at the queuing dock shall be limited to no longer than five minutes.	
Biological Resources	The project has the potential to result in a short-term increase in turbidity due to project construction, impacting water quality and marina fish and wildlife species, in addition to potential long-term impacts to birds due to collisions with the dry stack boat storage structure.	BR-1 Prior to project initiation, the project applicant shall hire marine contractors that are professionally capable to employ the methods and materials necessary to contain contaminants within an aquatic work area, and to mitigate the potential escape of contamination to areas outside project boundaries.	With incorporation of mitigation measures, impacts will be less than significant.

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		BR-2 During landside construction, the site facilities manager shall ensure that contractors are prepared within one hour to distribute (stored) straw waddles around the work area in the event that unexpected runoff, construction debris, and contaminated flows occur. BR-3 During project construction the site facilities manager shall ensure that debris and trash are disposed of in covered trash containers on land and on the work barge and that the debris and trash are disposed of at the end of construction each day. BR-4 During project construction the site facilities manager shall prohibit and preclude the discharge of any hazardous materials into Marina del Rey waters. BR-5 During project construction, the site facilities manager shall deploy adequate silt curtains and booms around the work barge and pile removal and emplacement operations, to minimize the spread of turbid waters, sediments, and floating debris outside the project boundaries. BR-6 During project construction, the site facilities manager shall ensure that placement and storage of construction materials, equipment, debris, and waste products will be at locations that are not subject to wave, wind, or rain erosion and runoff dispersion. BR-7 After completion of construction, applicant shall ensure that any and all construction material shall be removed from the site within ten days and relocated to or disposed of at an appropriate off-site location. BR-8 During project construction the site facilities manager shall ensure that placement or storage of machinery and construction materials not essential to making project improvements shall be prohibited at all times in subtidal and intertidal zones.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		BR-9 During project construction the site facilities manager shall ensure that divers will be deployed to recover non-buoyant debris discharged into coastal/marina waters as soon as possible after the loss. BR-10 Throughout all phases of the project, the site facilities manager shall ensure that sand bags will be placed landside around drainage inlets to prevent runoff and sediment transport into the surrounding harbor. BR-11 Prior to commencement of project construction, the applicant shall ensure that at least one pre-construction meeting is held between the developer (or applicant's representative), the project's general contractor, and the ecological monitor. This meeting shall be held for the purposes of reviewing and agreeing to procedural guidelines and best management practices to protect biological resources. BR-12 Throughout the construction process the site facilities manager shall dispose of all demolition and construction debris at an appropriate, off-site, and secure location. BR-13 During construction, project applicant shall be required to comply with all conditions of the U.S. Army Corps of Engineers Section 404 permit related to fill of coastal waters. BR-14 Throughout the construction process the site facilities manager shall maintain on-site an operational fitted and rigged outfit of silt curtains and booms to contain turbid conditions and construction-related floating debris. BR-15 Throughout the construction process the site facilities manager shall ensure that floating booms will be used to contain debris discharged into coastal waters. Any debris discharged shall be removed as soon as possible but no later than the end of each day of construction.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		BR-16 Throughout the construction process the site facilities manager shall ensure that erosion control/sedimentation best management practices shall be used to control sedimentation impacts to coastal waters during construction. During construction, the site facilities manager shall ensure that sand bags are placed around drainage inlets to prevent runoff and sediment transport into Marina del Rey. BR-17 Prior to construction, the project applicant shall ensure that a pre-construction eelgrass survey is conducted. Upon project completion, the project applicant shall ensure that a post-construction eelgrass survey is conducted. The project applicant shall ensure that the surveys include the project area for the purpose of determining whether eelgrass is present. Those that conduct the surveys shall ensure that the surveys are consistent with the Southern California Eelgrass Mitigation Policy (SCEMP) and that reports are submitted to the appropriate resource agencies. BR-18 Prior to project construction, the project applicant shall ensure that a pre-construction *Caulerpa taxifolia* survey is conducted 30 to 90 days prior to construction efforts. After project completion, the project applicant shall ensure that a post-construction *Caulerpa taxifolia* survey is conducted within 30 to 90 days after project completion. Those who conduct the surveys shall ensure that the surveys are consistent with the Southern California Eelgrass Mitigation Policy.	
Geology and Soils	Effects associated with geology and soils resulting from the proposed project involve the exposure of persons and property to potential impacts due to seismic activity,	G-1 Prior to construction, the project manager shall ensure that an indicator pile program will be performed prior to proceeding with pile installation and casting of the production piles.	With incorporation of mitigation measures, impacts will be less than significant.

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
	erosion, vibration, and liquefaction.	G-2 Prior to construction, the project manager shall ensure that measurements shall be made during the indicator pile program to quantify the magnitude of the vibration and to permit changes in the pile driving procedures before the start of the production pile installation. G-3 Prior to construction, the project manager shall ensure that vibration measurements are made during the indicator pile program and that those measurements are made initially from piles installed near the center of the site or at the greatest distances from the existing structures. G-4 Prior to construction, the project manager shall ensure that vibration measurements made during the indicator pile program are taken using a portable seismometer connected to triaxial geophones placed on the ground surface. The geophones should be spaced at 50-foot intervals at distances between 50 and 200 feet from the pile being driven. G-5 During construction, the project manager shall ensure that vibrations from the pile driving be compared to the specified damage criteria (0.2 inches per second). If the measurements exceed the allowable criteria, the project manager shall ensure that measures are taken to reduce distress (measures could include the use of hydraulic hammers in lieu of diesel hammers and pre-drilling the pile locations). G-6 During construction, the project manager shall ensure that measurements are taken during the pile driving to monitor the effects on the existing structures. G-7 During construction, the project manager shall ensure that, during pile driving, vibration measurements are taken adjacent to the existing buildings during pile driving to confirm the procedures established during the indicator pile program.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		G-8 During construction, the project manager shall ensure that, in the event old oil wells are encountered, they will be reported to the State of California, Division of Oil and Gas (CDOG) and properly abandoned in accordance with the current CDOG requirements. G-9 During construction, the project manager shall ensure that the liquefaction and lateral spreading potential is addressed by: a) construction of a supplemental supporting system within the soils behind the sea wall to confine the soils from potential lateral movement, or b) improving the supporting characteristics of the liquefaction-susceptible soils with a ground modification technique. G-10 During construction, the project manager shall ensure that foundations extend through the fill and estuary deposits and into the underlying dense sand and gravel on-site, and floor slabs on grade will need to be structurally supported. G-11 During construction, the project manager shall ensure that the boatwright/lifeguard building is supported on pile foundations and that the foundation-level of the building consists of a continuously reinforced mat foundation supported on piles. G-12 During construction, the project manager shall ensure that soil-cement columns are installed between the existing sea wall and the dry stack boat storage structure. G-13 During construction, the project manager shall ensure that the soil-cement columns are installed through the liquefiable deposits and into the dense sand and gravel. G-14 During construction, the project manager shall ensure that foundations for the proposed boat storage structure extend through the existing fill and estuary deposits and into the underlying dense sand and gravel.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		G-15 During construction, the project manager shall ensure that a field representative from Van Beveren and Butelo (or another qualified geotechnical firm) observe the condition of the final subgrade soils immediately prior to slab-on-grade construction, and, if necessary, perform further density and moisture content tests to determine the suitability of the final prepared subgrade. G-16 During construction, the project manager shall ensure that retaining walls are designed to resist hydrostatic pressures or are provided with a drain pipe or weep holes. The drain could consist of a 4-inch-diameter perforated pipe placed with perforations down at the base of the wall. The pipe should be sloped at least 2 inches in 100 feet and surrounded by filter gravel. During construction, the project manager shall ensure that the filter gravel meets the requirements of Class 2 Permeable Material as defined in the current State of California, Department of Transportation, Standard Specifications. If Class 2 Permeable Material is not available, ¾-inch crushed rock or gravel separated from the on-site soils by an appropriate filter fabric can be used. The crushed rock or gravel should have less than 5% passing a No. 200 sieve.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		G-17 During construction, the project manager shall ensure that cantilevered retaining walls are built to withstand the recommended earth pressure and resist any applicable surcharges due to storage traffic loads. Additionally, during construction the project manager shall ensure that walls adjacent to streets or other areas subject to vehicular traffic are designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal vehicular traffic. During construction, the project manger shall ensure that retaining walls more than 12 feet high should be designed to support a seismic active pressure. G-18 During construction, the project manager shall ensure that the base course conforms to requirements of Section 26 of State of California Department of Transportation Standard Specifications (Caltrans), latest edition, or meets the specifications for untreated base as defined in Section 200-2 of the latest edition of the Standard Specifications for Public Works Construction (Green Book). During project construction the project manager shall ensure that the base course is compacted to at least 95%. G-19 During construction, the project manager shall ensure that the existing fill soils are excavated and replaced as properly compacted fill and that all required fill is uniformly well compacted and observed and tested during placement.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		G-20 During site preparation, the project manager shall ensure that after the site is cleared and any existing fill soils are excavated as recommended, the exposed natural soils are carefully observed for the removal of all unsuitable deposits. During site preparation, the project manager shall also ensure that exposed soils are scarified to a depth of 6 inches, brought to near-optimum moisture content, and rolled with heavy compaction equipment. During site preparation, the project manager shall ensure that at least the upper 6 inches of the exposed soils are compacted to at least 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction. G-21 During construction, the project manager shall ensure that excavations deeper than about 2 feet are sloped back at 1:1 (horizontal to vertical) or shored for safety. Unshored excavations shall not extend below a plane drawn at 1½:1 extending downward from adjacent existing footings. During project construction, the project manager shall ensure that excavations are observed by personnel of Van Beveren and Butelo (or another qualified geotechnical firm) so that any necessary modifications based on variations in the soil conditions can be made. The project manger shall ensure that during construction all applicable safety requirements and regulations, including OSHA regulations, are met. G-22 During construction, the project manager shall ensure that any required fill is placed in loose lifts not more than 8 inches thick and compacted to at least 90% of the maximum density as determined by the ASTM D1557 method of compaction. During project construction, the project manager shall ensure that moisture content of the on-site soils at the time of compaction varies by no more than 2% below or above optimum moisture content.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		G-23 During site preparation, the project manager shall ensure that all required basement and retaining wall backfill is mechanically compacted in layers and that flooding is not be permitted and that exterior grades be sloped to drain away from the foundations to prevent ponding of water. G-24 During site preparation, the project manager shall ensure that any utilities supported within the backfill are designed to accept differential settlement, particularly at the points of entry to the structure and that provision is made for some settlement of concrete walks supported on backfill. G-25 During site preparation, the project manager shall ensure that cobbles larger than 4 inches in diameter are not used in the fill. The project manager shall ensure that any required import material consists of relatively non-expansive soils with an expansion index of less than 35 and that imported materials contain sufficient fines (binder material) so as to be relatively impermeable and result in a stable subgrade when compacted. Additionally, during site preparation, the project manager shall ensure that all proposed import materials are approved by personnel from Van Beveren and Butelo (or another qualified geotechnical firm) prior to being placed at the site.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		G-26 During site preparation, the project manager shall ensure that the reworking of the upper soils and the compaction of all required fill is observed and tested during placement by a representative of Van Beveren and Butelo (or another qualified geotechnical firm). During site preparation, the project manager shall ensure that the representative performs at least the following duties: - Observe installation of the soil-cement columns. - Observe the exposed subgrade in areas to receive fill to check that the desired excavation has been achieved and that suitable soils are exposed. - Observe the fill for uniformity during placement. - Test the compacted fill for field density and compaction to determine the percentage of compaction achieved during backfill placement. - Observe the indicator pile installation, the performing of pile load tests and the installation of the production piles. G-27 Prior to commencement of grading of the site, the project manager shall ensure that the governmental agencies having jurisdiction over the project are notified prior to commencement of grading so that the necessary grading permits can be obtained and arrangements can be made for required inspection(s). Additionally, prior to commencement of site grading, the contractor shall be familiar with the inspection requirements of the reviewing agencies and the content of the Geotechnical Investigation by Van Beveren and Butelo.	
Hazards and Hazardous Materials	Effects associated with hazards and hazardous materials involve the soils on the project site contaminated by the Leaking Underground Storage Tanks (LUSTs) and the	HH-1 Prior to issuance of building permit, applicant shall submit for review and approval to the Los Angeles County Fire Department, plans for an on-site automated fire suppression system for the dry stack boat storage structure.	With implementation of mitigation measures, impacts will be less than significant.

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
	presence of hazardous materials during project operation in relation to fuel and boat repair activities.	HH-2 Prior to construction of a fuel tank facility, the project applicant shall obtain clearance from all relevant agencies for the placement and installation of the fuel tank, including RWQCB, the Department of Public Works, and the County Fire Department. HH-3 Prior to demolition of existing buildings on the site, the project applicant shall ensure that an inspection is performed by a qualified asbestos inspector. If asbestos is present, the applicant shall be required to ensure safe removal and disposal of such materials to a designated disposal site. HH-4 During project construction and operation, the project applicant shall ensure that best management practices (BMPs) will be implemented to reduce the project's impact on the environment, to prevent the leakage of any fuel and to reduce the potential occurrence of upset or accident. HH-5 During operation the project applicant shall ensure that the storage and disposal of any hazardous materials related to the operation of the indoor boat repair facility (such as paint, lubricants, cleaners and similar maintenance products) is in accordance with the County of Los Angeles Health Hazardous Materials Division and the Los Angeles County Department of Public Works/Waste Management requirements. HH-6 During operation the Sheriff's Department shall ensure that the storage and disposal of any hazardous materials related to its operations (such as paint, lubricants, cleaners and similar maintenance products) is in accordance with the County of Los Angeles Health Hazardous Materials Division and the Los Angeles County Department of Public Works/Waste Management requirements. HH-7 Prior to operation of the facility, the project applicant shall verify that the project site has been fully remediated by the County of Los Angeles.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		HH-8 During project operation, the site facilities manager shall ensure that the fuel pump shall be accessed by trained personnel only, and not the general public.	
Hydrology and Water Quality	Project construction activities have the potential to degrade water quality. Through incorporation of project design features, the water quality of the surface runoff from the project site is predicted to comply with adopted regulatory requirements designed by the LARWQCB to assure that water quality is not adversely affected by regional development. Permeable surface will be increased by approximately 178%.	WQ-1 After project completion the site facilities manager shall be responsible for operation and maintenance activities associated with vegetated swales on-site. WQ-2 After project completion the site facilities manager shall be responsible for monthly (or more frequently as needed) visual facility inspections of vegetated swales. WQ-3 After project completion the site facilities manager shall be responsible for the monthly (or more frequently as needed) removal of trash, debris, and sediment from vegetated swales. WQ-4 After project completion the site facilities manager shall be responsible for integrated pest/plant management and minor vegetation removal and thinning of vegetation within the vegetated swales. This shall occur on a monthly (or more frequently as needed) basis. WQ-5 After project completion the site facilities manager shall be responsible for major vegetation removal/planting and major sediment removal as required (annually or less frequently) within the vegetated swales. WQ-6 During construction the site facilities manager shall ensure that erosion is controlled via physical stabilization through hydraulic mulch, soil binders, straw mulch, bonded fiber matrices, and erosion control blankets (i.e., rolled erosion control products). WQ-7 During construction the site facilities manager shall ensure that erosion is controlled by ensuring that the area and duration of exposure of disturbed soils is limited.	With implementation of mitigation measures, impacts will be less than significant.

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		WQ-8 During construction the site facilities manager shall ensure that erosion is controlled via soil roughening of graded areas (through track walking, scarifying, sheepsfoot rolling, or imprinting) to slow runoff, enhance infiltration, and reduce erosion. WQ-9 During construction the site facilities manager shall ensure that erosion is controlled by stabilizing vegetation through temporary seeding to establish interim vegetation WQ-10 During construction the site facilities manager shall ensure that wind erosion (dust) is controlled through the application of water or other dust palliatives as necessary to prevent and alleviate dust nuisance. WQ-11 During construction the site facilities manager shall ensure that a soil monitoring plan is prepared and implemented. WQ-12 During construction the site facilities manager shall ensure that sediment is controlled through the use of silt fences, fiber rolls, gravel bag berms, sand bag barriers, and straw bale barriers, which will provide perimeter protection and will prevent discharges. WQ-13 During construction the site facilities manager shall ensure that storm drain inlets are protected to control sediment. WQ-14 During construction the site facilities manager shall ensure that silt fences, fiber rolls, gravel bag berms, sand bag barriers, and straw bale barriers are used on-site. WQ-15 During construction the site facilities manager shall ensure the use of sediment traps, protection of storm drain inlets, and sediment basins, to capture and control sediment. WQ-16 During construction the site facilities manager shall ensure that sediment velocity is reduced through the use of check dams, sediment basins, and outlet protection/velocity dissipation devices.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		WQ-17 During construction the site facilities manager shall ensure that the construction entrance/exit is stabilized, that the construction road is stabilized and that there is a tire wash at the entrance/exit, which will reduce off-site sediment tracking. WQ-18 During construction the site facilities manager shall manage solid, sanitary, concrete, hazardous, and equipment-related wastes. WQ-19 During construction the site facilities manager shall ensure that soil stockpiles are protected through covers, the application of water or soil binders, and perimeter control measures. WQ-20 During construction the site facilities manager shall implement good housekeeping practices to reduce or limit pollutants at their source before they are exposed to storm water, including such measures as: water conservation practices, vehicle and equipment cleaning and fueling practices. WQ-21 During construction the site facilities manager shall ensure that Best Management Practices (BMPs) are implemented to reduce or eliminate the discharge of sediment or other pollutants due to construction activities within and adjacent to the waterway including: BMPs for pile driving operations; BMPs for managing materials and equipment over water; and BMPs for managing demolition adjacent to waterways. WQ-22 During construction the site facilities manager shall ensure the training of individuals responsible for Storm Water Pollution Prevention Plan (SWPPP) preparation, implementation, and permit compliance, including contractors and subcontractors. WQ-23 During construction the site facilities manager shall ensure that signage (bilingual, if appropriate) is present on-site to address SWPPP-related issues (such as site cleanup policies, BMP protection, washout locations, etcetera).	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		WQ-24 During construction the site facilities manager shall perform routine site inspections and inspections before, during (for storm events greater than 24 hours), and after storm events. WQ-25 During construction the site facilities manager shall implement maintenance and repairs of Best Management Practices as indicated by routine and storm event inspections. WQ-26 During construction the site facilities manager shall ensure that a Sampling and Analysis Plan for non-visible pollutants is prepared and implemented. WQ-27 During development the project applicant shall ensure that the project complies with adopted regulatory requirements, including: MS4 Permit and SUSMP requirements; Construction General Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan water quality objectives, California Toxics Rule (CTR) criteria, and Total Maximum Daily Loads (TMDLs). WQ-28 Prior to the commencement of the project, the project applicant shall ensure that an Army Corps of Engineers (ACOE) Section 404 Permit has been obtained and that permit requirements are adhered to. WQ-29 Prior to the commencement of the project, the project applicant shall ensure that Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification is obtained and that requirements are adhered to.	

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
Land Use and Planning	The project will require amendments to the Local Coastal Program and the Marina del Rey Specific Plan, which will allow the development of a dry stack boat storage structure on the site. The existing Sheriff's Boatwright/Lifeguard facility will be retained. Marina del Rey is an urbanized site which is typified by access to and recreational use of the marina by the general public. The proposed use is consistent with the surrounding uses along Fiji Way. The provision of additional boat storage capacity is a stated goal of the Local Coastal Program and the Specific Plan.	None.	The proposed project will not result in significant impacts in the area of land use.
Noise	Short-term construction impacts are significant and unavoidable. These include: Temporary increases in the ambient noise of more than 3 dB at commercial properties and at Area A. Noise levels in excess of 60 dB(A) at the natural habitat during construction, if construction occurs during nesting/breeding season. No long-term impacts are identified.	N-1 During the construction phase, applicant shall ensure that all construction activities shall be limited to the hours and days permitted by the Los Angeles County Code. N-2 During the construction phase, applicant shall ensure that all construction and demolition equipment shall be fitted with properly sized mufflers. N-3 During construction, applicant shall ensure that all noise generating equipment shall be located as far as practicable from the surrounding properties. N-4 During construction, applicant shall ensure that poured-in-place piles shall be used where feasible. A qualified geotechnical engineer shall review the feasibility of this method, including assessing the necessary depth of the holes to ensure piles are supported in bedrock or sufficiently dense soils. N-5 Prior to construction, applicant shall ensure that an acoustical study shall be performed based on the final construction methodology to investigate alternative means of reducing noise impacts from impact pile driving or vibratory pile driving.	With incorporation of mitigation measures, short-term impacts will remain significant.

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		N-6 Prior to construction, applicant shall ensure that a qualified structural and/or geotechnical engineer shall review the proposed construction methodologies to ensure that vibration from drilling and other activities does not pose a risk of building damage, particularly due to dynamic soil settlement. N-7 Prior to construction, applicant shall ensure that an indicator pile program as outlined in the December 10, 2008 letter report by Van Beveren and Butelo will be performed prior to proceeding with pile installation. N-8 During construction, applicant shall ensure that a qualified structural and/or geotechnical engineer shall be on-site to perform tests and observations to ensure the structural stability of the structures in the vicinity of the construction area. Such observations may include vibration velocity measurements inside and/or outside of potentially affected buildings.	
Public Services	No existing services will be eliminated, and no additional requirement for the existing services will occur. The project will require the relocation of County offices to another location in the marina. The existing Sheriff's Boatwright/Lifeguard facility use will be housed on-site in a new facility in approximately the same location. The proposed addition of a passive park where none currently exists will be a positive benefit to the marina residents and visitors.	None.	Less than significant.
Recreation	The boat traffic circulation from the public boat launch will not be impacted. Recreational opportunities for boating will be enhanced with the addition of a dry stack boat storage structure. The project will extend a new dock structure southwest of the public boat launch ramp in Basin H.		No significant impacts to recreation will occur with project implementation.

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
	The temporary loss of parking and provision of replacement parking will not impact the availability of recreation facility access.		
Transportation and Traffic	The proposed project, upon completion in year 2011, is expected to contribute to roadway operation deficiencies at the intersections of Admiralty Way at Bali Way and Admiralty Way at Mindanao Way when combined with projected development in the project area. The project will result in a loss of public parking during project construction. Public parking can be accommodated at any other parking area throughout the marina. Dock 52 charter boat parking can be relocated to a refurbished public dock adjacent to Fisherman's Village. The loss of parking and provision of replacement parking will not impact the availability of recreation facility access.	T-1 Prior to the issuance of building permits, the project applicant shall pay Transportation Improvement Program fees based on the PM peak hour trips generated by the project in the amount of $102,420. T-2 Prior to commencement of construction, the applicant, in coordination with the County Department of Beaches & Harbors, shall prepare an interim parking plan providing 63 public parking spaces in the same general geographic location, which shall remain available until permanent parking is provided. T-3 Prior to the issuance of building permits, the project applicant shall, in coordination with the County of Los Angeles, prepare a construction management plan that addresses, at a minimum, the recommendations contained in the Traffic Impact Analysis Section 15.3, Construction Management Plan Criteria.	With incorporation of mitigation measures, project impacts will be less than significant.
Utilities and Service Systems	Implementation of the proposed project would not substantially increase the demand for utility service systems beyond the existing demand. The proposed project's incremental contribution would not be considered cumulatively considerable.	U-1 Prior to the issuance of a grading permit, the project developer shall coordinate with Los Angeles County Waterworks District #29 and Los Angeles County Department of Public Works to determine the exact location of all existing underground water supply facilities and take action to prevent damage to these facilities to be left on the project site or interfere with their operation. The project developer shall pay its fair share required fees for the necessary facilities to accommodate project-related water supplies.	With incorporation of mitigation measures, project impacts will be less than significant.

Table 2.5-1 Executive Summary Matrix

	Project Impacts	Mitigation Measures	Level of Significance after Incorporation of Conditions of Approval and Mitigation Measures
		U-2 Prior to the issuance of a grading permit, the project developer shall coordinate with the Los Angeles County Sewer Maintenance District and the Marina del Rey Sewer Maintenance District to determine the exact location of all existing underground wastewater supply facilities and take action to prevent damage to these facilities to remain on the project site. The project developer shall pay their fair share fees for the necessary facilities to accommodate project-related wastewater facilities. U-3 Prior to the issuance of a grading permit, the project developer shall coordinate with Southern California Edison to determine the exact location of all overhead and underground electrical facilities. All electrical lines and associated structures to be left on the project site shall be protected from damage. U-4 Prior to the issuance of a grading permit, the project developer shall coordinate with Southern California Gas to determine the exact location of all underground natural gas facilities. All gas lines and associated structures to be left on the project site shall be protected from damage. U-5 Prior to the issuance of a grading permit, the project developer shall coordinate with Verizon to determine the exact location of all overhead and underground telephone facilities. All telephone lines and associated structures to be left on the project site shall be protected from damage. U-6 Prior to the issuance of a grading permit, the project developer shall ensure that grading plans reflect the undergrounding of utility lines serving the proposed project.	

2.6 Impacts Found Not To Be Significant

Section 15128 of the CEQA Guidelines requires that an EIR identify those impacts found not to be significant in the Initial Study and EIR process. Those impacts must be identified accompanied by a brief explanation of why the impacts were found to be insignificant. The following impacts were found to be insignificant after completion of the Initial Study and NOP process.

Table 2.6-1 Impacts Found Not To Be Significant

Environmental Issue	Basis for Dismissal from EIR Discussion
Agricultural Resources	No farmland exists on or near the project site. No Farmland will be converted to non-agricultural use. No impacts will occur as a result of project implementation.
Cultural Resources	The report stated that the field study was limited to a surface inspection and that it is possible that prehistoric archaeological materials could be unearthed during development. However, it is the conclusion of the report that the likelihood of finding prehistoric archaeological materials is improbable. The report concluded that further archeological testing need not be undertaken and that the proposed project will not have an adverse effect on any known archaeological or historical resources. A standard condition of approval will require the cessation of grading activities, and contact of appropriate representatives, if any cultural resources are discovered during project grading or construction activities.
Mineral Resources	There are no known mineral resources on the project site or in the immediate project vicinity.
Population and Housing	The proposed project will not directly induce substantial population growth, will not involve the construction of residential homes, will not displace housing, and no replacement housing will be necessary. The project will not indirectly induce substantial population growth. No impact will occur with the implementation of the proposed project.

3. Project History and Background

Marina Del Rey is home to one of the largest man-made small craft harbors in the world. The 804-acre site includes 403 acres of water and houses 4,737[1] boats. The marina includes 2,340 feet of off-shore breakwater; 2 miles of main channel, which is approximately 1,000 feet wide, and 3 miles of side basins, which are approximately 600 feet wide. In addition, the marina includes 8 miles of concrete bulkhead and 6 miles of landscaped roadways. The South Bay Bike Trail, a 20-mile coastal bicycle path, is one of the County's most popular bike trails, and runs through the eastern side of the marina along Fiji Way and adjacent to the Ballona Wetlands Ecological Reserve.[2]

The County of Los Angeles has long recognized the growing need for additional boat storage of a high capacity nature within Marina Del Rey. With the growing population of California and the fact that few harbors have been approved in the last 20 years, space for boats is at a premium. At the same time, boaters are making a number of choices regarding the storage of their boats when not in use, including dry storage in the marina, off-site storage outside the marina, trailering from their home, and vertical storage.

The County identified the project site as a feasible location for additional boat storage, and in 2003 the Department of Beaches & Harbors issued a Request for Proposals (RFP) for development of a dry stack boat storage structure on the site. Below is a chronology detailing the County's RFP process, which led to the selection of the Applicant for the dry stack boat storage project. Three developers submitted proposals for the original RFP in 2003. Two developers submitted proposals for the second RFP in 2005. Several hearings were held on the RFP between 2003 and 2005. In 2005 the Applicant was selected and signed a Lease Option for development of the project.

[1] Status on Development in Marina del Rey by Department of Beaches & Harbors, February 2011.

[2] Marina Del Rey History. Department of Beaches and Harbors. http://beaches.co.la.ca.us/BandH/Marina/MdRhistory.htm [accessed March 19, 2010]

Chronology

Event	Date
1. Original RFP	3/20/03
2. RFP submission	5/6/03
3. Selection of developer	9/4/03
4. Second RFP	3/1/05
5. RFP submission	4/4/05
6. Selection of developer	10/1/05
7. Option approval	5/22/07
8. Draft of lease agreement	5/22/07
9. Option extension	11/20/08

The Notice of Preparation (NOP) to prepare an Environmental Impact Report was distributed for a 30-day public review period on January 21, 2009. The NOP was filed with the Los Angeles County Clerk, posted on the project site, published in *The Argonaut*, a local newspaper, and sent via U.S. mail to approximately 180 public agencies and interested parties. A public Scoping Meeting was held on February 19, 2009. The Scoping Meeting was attended by approximately 17 individuals. Comments were solicited from the meeting attendees. A summary of the comments provided during the scoping meeting is included in the table below, along with a notation of where the issue is addressed in the EIR. The transcript from the Scoping Meeting is included as Appendix C.

4. Project Description

The components of the project that are to be analyzed in this EIR are physically constructed components and operational characteristics. The project description provides for construction details and program specifics.

4.1 Project Location

The project site is located in the County of Los Angeles within Marina del Rey at 13483 Fiji Way on Basin H, west of the intersection of Admiralty Way and Fiji Way. Access to the marina is via the SR-90 Freeway and Lincoln Boulevard as depicted in Exhibit 4.1-1 – Regional Location Map and Exhibit 4.1-2 – Project Vicinity Map.

Marina del Rey is a highly urbanized area and is home to approximately 5,000 pleasure boats and a variety of land uses, including hotels, restaurants, office and commercial centers, residential uses and public parks, beaches, and bike paths. The community of Venice is located northwest of Marina del Rey, and Playa Vista is located to the southeast. Los Angeles International Airport is approximately four miles southeast of Marina del Rey.

Immediately east and north of the site are a public boat storage facility and a public boat launch ramp. The West Marine boat maintenance and repair facility is located to the west. A number of wet boat slips are located in front of the adjacent boatyard facility in Basin H. Fisherman's Village and the Villa Venetia apartment complex are located farther west of the site along Fiji Way. Government facilities including the Coast Guard, the County Sheriff, and the County Department of Beaches & Harbors offices are also located to the west of the site along Fiji Way. Area A of the Ballona Wetlands Ecological Reserve is located immediately south of the site across Fiji Way. One of the County's busiest bike paths, the South Bay Bike Trail, runs adjacent to the site along Fiji Way. Burton Chace Park is located across Basin H northwesterly of the project site. The park contains picnic areas, paved walkways, a banquet/meeting facility, a snack bar, and public restrooms. Additional dry storage in the marina is provided on Parcels 49 and 77. Parcel 49 is east of the project site. Parcel 77 is directly across Basin H. Exhibit 4.1-3, Parcel Location Map, depicts the parcels noted above.

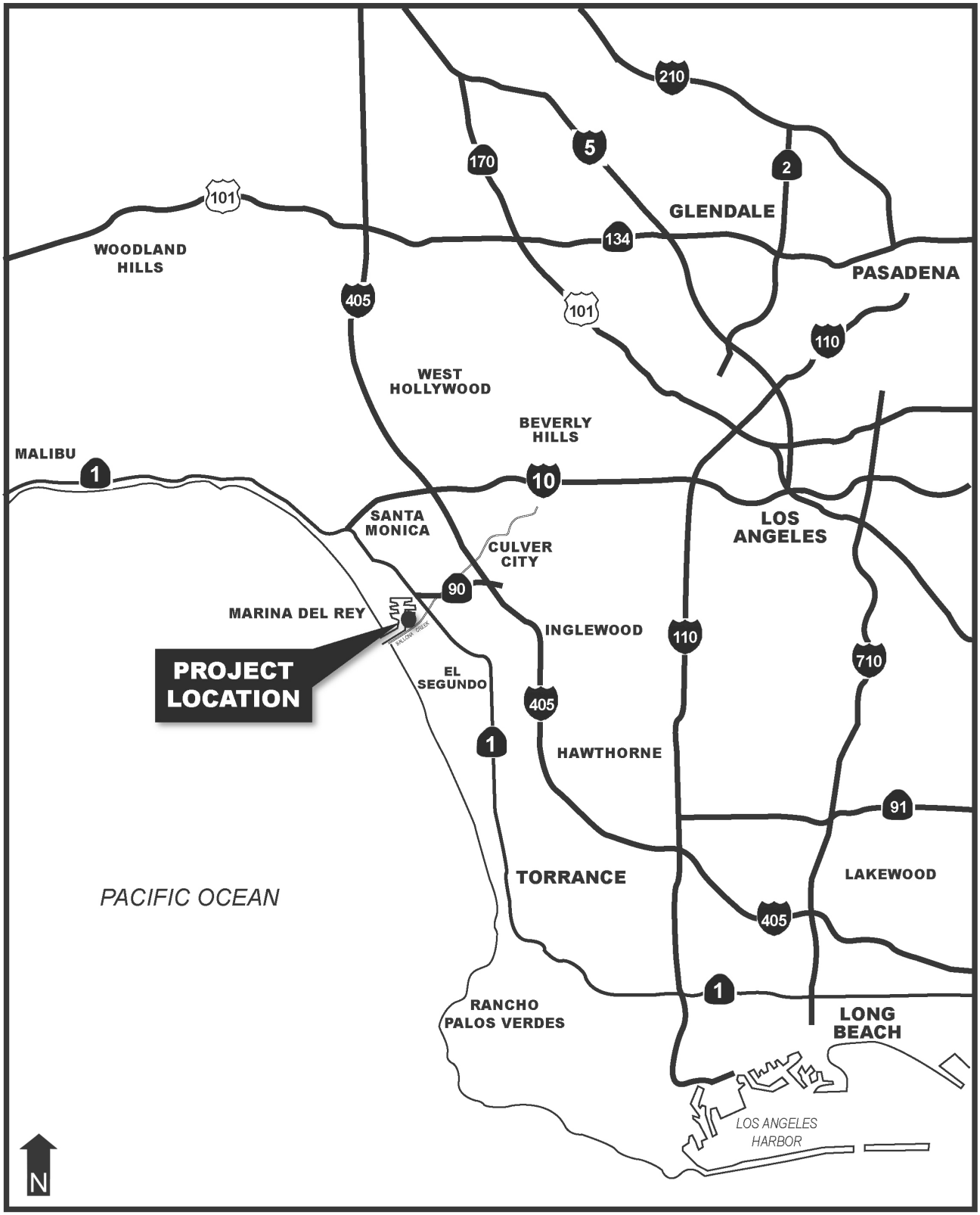
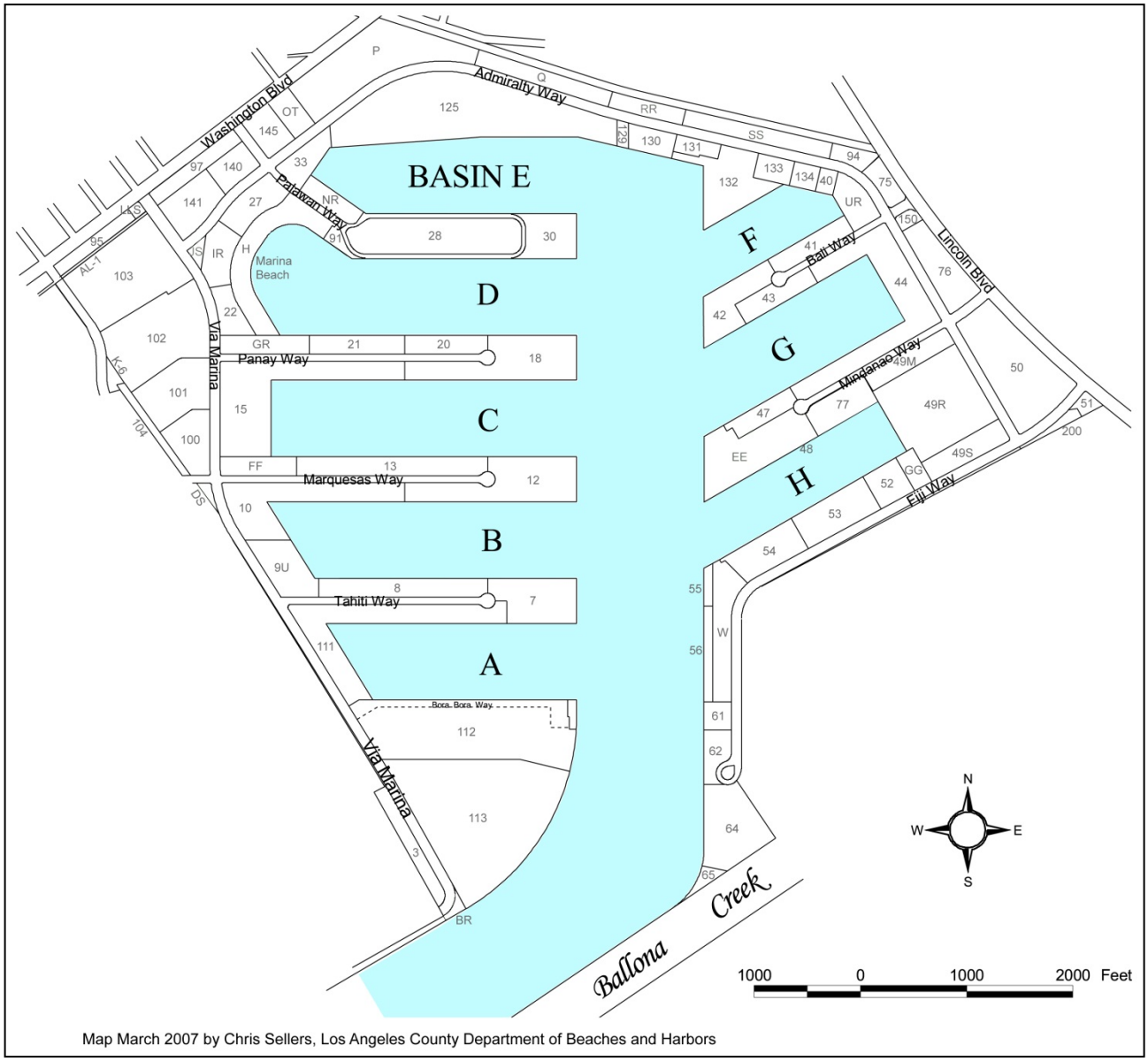


Exhibit 4.1-1 – Regional Location Map

Exhibit 4.1-2 – Project Vicinity Map



Map March 2007 by Chris Sellers, Los Angeles County Department of Beaches and Harbors

Exhibit 4.1-3– Parcel Location Map

4.2 Existing Conditions

The project site is approximately 4.2 acres in size (3.09 acres of land and 1.11 acres of water) and is comprised of 2 parcels, referred to as Parcel 52 and Parcel GG. The waterside portion of the site is located within Basin H of the marina, which is the first easterly basin within the marina. The topography of the site ranges from a height of 15 feet above sea level at the southern portion of the site, sloping down to a height of 7 feet above sea level at the northern portion of the site at the water.

Parcel 52 is oriented to the west and is currently developed with a temporary public parking lot containing 245 parking spaces available to the public at no charge. The parking is primarily utilized for charter fishing tours, dinner cruises, and other cruises. Motor homes and vans also utilize the parking on a transient basis. The majority of the site is paved; however, a small grassy berm runs parallel to Basin H and 24 mature palm trees are located on the berm. Access to Parcel 52 is provided via two driveways along Fiji Way.

Parcel GG is oriented to the east and is currently developed with the Marina del Rey Sheriff's Boatwright/Lifeguard facility, maintenance shop and maintenance/storage yard. Additionally, five office trailers used by the Los Angeles County Department of Beaches & Harbors are located on the site. A limited number of parking spaces are located on Parcel GG and are utilized by Sheriff and County employees. No public parking is located on Parcel GG.

In addition to the landside parcels, a portion of the water that fronts Parcels 52 and GG is also a part of the project site. The waterside uses include a dock utilized by charter fishing ventures and a separate dock utilized by the Sheriff's Department. The existing dock and ramp facility is approximately 1,690 square feet and includes fourteen 16-inch-diameter piles. The public boat launch ramp is located directly north of the Sheriff's Department and the charter docks. The existing setting of the site is depicted in Exhibit 4.2-1 – Existing Setting and Photo Key Map. Photographs of the site and surrounding area are provided as Exhibit 4.2-2, Exhibit 4.2-3, and Exhibit 4.2-4.

Exhibit 4.2-1 – Existing Setting and Photo Key Map

Photo 1 - View to the North from the southwest corner of the existing parking lot, across the channel towards Mindanao Way.

Photo 2 - View to the East from the western edge of the existing parking lot, towards existing Harbor offices/Sheriff's Boatwright facility.

Photo 3 - View to the West from the eastern edge of the existing parking lot, towards existing marina/boat yard on adjacent parcel.

Photo 4 - View south through parking lot towards entrance to site on Fiji Way. Across Fiji Way to the south is the Ballona Wetlands Ecological Reserve.

Exhibit 4.2-2 – Site Photos 1 through 4

Photo 5 - View northeast from center of existing parking lot towards high rise buildings across Admiralty Way. Existing Harbor offices/ Sheriff's Boatwright visible beyond parked vehicles to the east.

Photo 6 - View west along Fiji Way from existing site driveway. Ballona Wetlands Ecological Reserve to the south (left) across Fiji Way.

Photo 7 - View east along Fiji Way from existing site driveway. Ballona Wetlands Ecological Reserve to the south (right) across Fiji Way

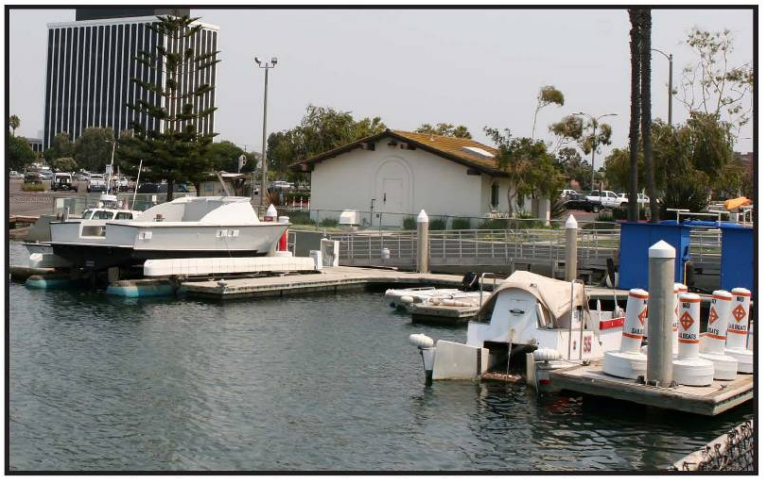


Photo 8 - View from Northern edge of parking lot looking northeast across channel towards public boat launch ramp, high rise buildings on Admiralty Way. Sheriff's Boatwright and docks showing to the east (right).

Exhibit 4.2-3– Site Photos 5 through 8

Photo 9 - View from Northern edge of parking lot looking northwest at charter boat dock and across channel towards Mindanao Way.

Photo 10 - View south from across channel looking towards site. Harbor offices/Sheriff's Boatwright facilities visible on the left. Existing marina/ boat yard showing on the right.

Exhibit 4.2-4– Site Photos 9 and 10

4.3 Project Description

The Boat Central project involves five main development components, including:

- A dry stack boat storage structure
- Mast-up-capable sailboat storage
- An office and customer lounge
- A Sheriff's Boatwright/Lifeguard facility
- A public park and promenade

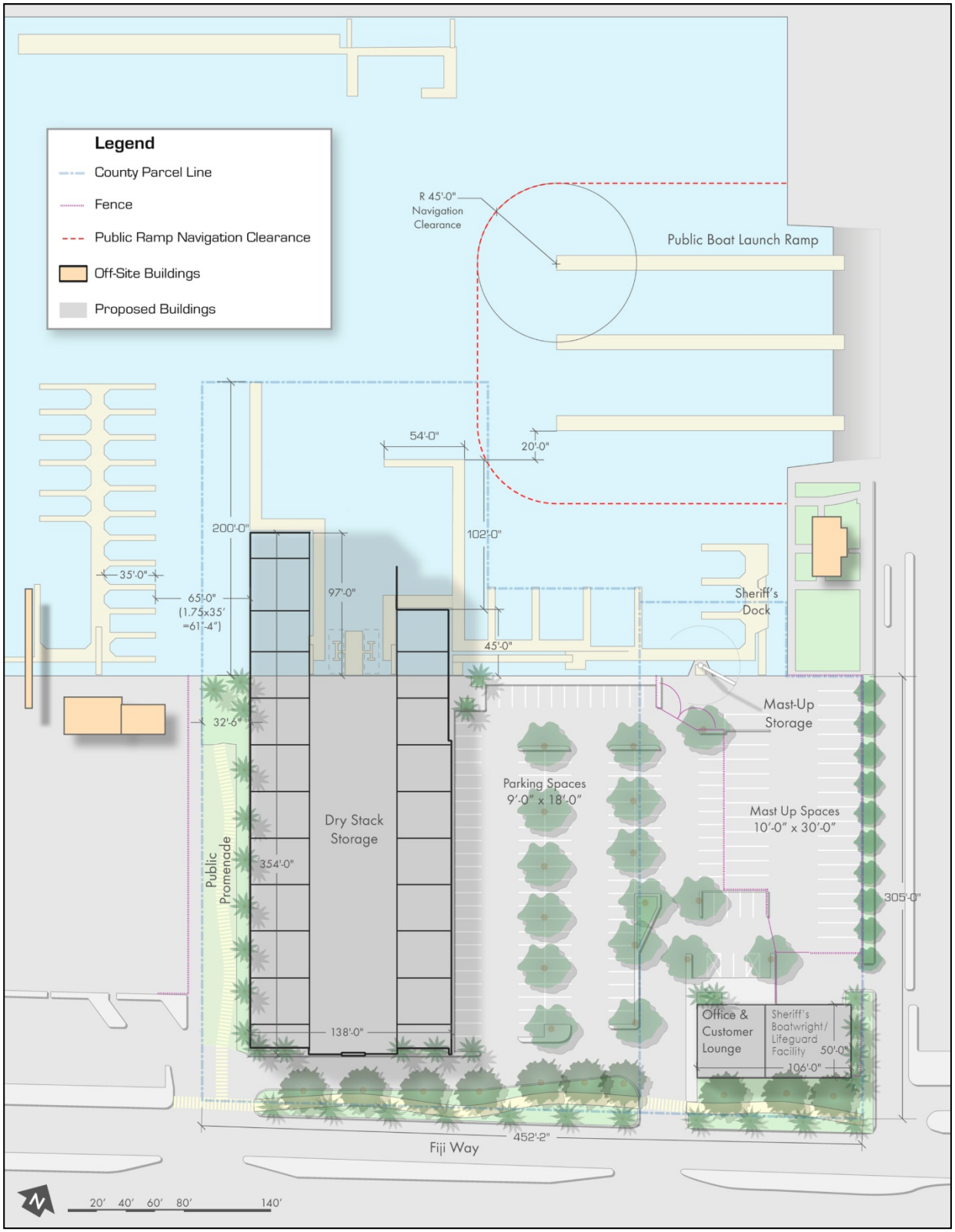
The Boat Central project is one of the first of its kind on the west coast, and the project would introduce a significant number of new boat storage spaces to Marina del Rey in a space saving fashion. The five main components of the project are described in detail below. The proposed project is depicted on Exhibit 4.3-1 – Proposed Site Plan.

The following permits and approvals from the County of Los Angeles are being sought for the project: A Local Coastal Program Amendment (Land Use Plan), a project-specific Specific Plan Amendment (Local Implementation Program), a Marina-Wide Specific Plan Amendment (Local Implementation Plan), a Coastal Development Permit, a Conditional Use Permit for the Dry Stack Facility and Boatwright Building, a Parking Permit, and a Setback Variance. The required discretionary permits and approvals required for the project are discussed in more detail below.

On November 3, 2011, the California Coastal Commission (CCC) approved an amendment to the Marina del Rey Local Coastal Program. The project site was included as one of the "pipeline projects" identified in the amendment. The amendment will:

- Change the land use categories for Parcels 52 and GG to "Boat Storage" with a Waterfront Overlay Zone,
- Add dry stack boat storage connected to landside structure to uses permitted in the "Water" land use category, and
- Change the maximum height of any structure in the "Water" land use category.

The Los Angeles County Board of Supervisors' approval occurred on November 29, 2011. The CCC is expected to approve the LCP Amendment as a consent calendar item in early 2012. The statute of limitations must run on the CCC action, a 60-day period after the final CCC action. Final approval of the amended LCP would eliminate the amendments contemplated herein.



Source: AC Martin Partners, Inc.

Exhibit 4.3-1 – Proposed Site Plan

4.3.1 Dry Stack Boat Storage

"Dry stack boat storage" is the vertical storage of boats in rack systems for in-and-out launching and retrieval of boats, as well as winter storage. Dry stack racks can be located outside or inside. Dry stack boat storage facilities can stack boats from two to six levels high. Boats are loaded and unloaded from the racks using forklifts or cranes.

Table 4.3-1 Dry Stack Boat Storage Structure Components

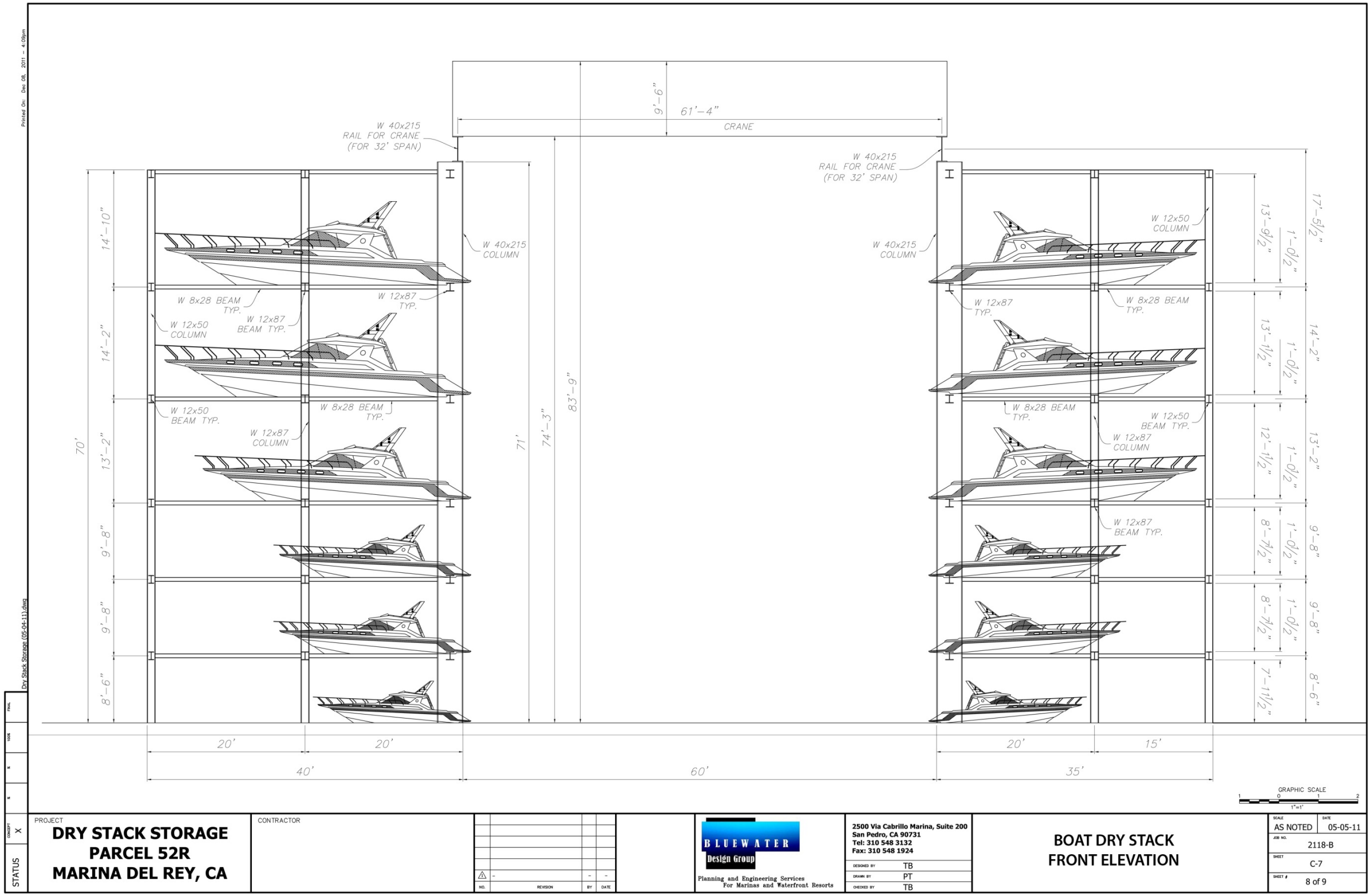
Boats	Trailers	Indoor Boat Repair
345	28	3,150 SF

The dry stack boat storage structure would be located on Parcel 52 and would provide boat storage spaces within the dry stack boat storage structure. The boat storage structure would accommodate up to 345 boats and 28 boat trailers, and an indoor boat repair facility (Table 4.3-1).

The interior of the boat storage structure would be modular and capable of accommodating varying sizes of boats based on demand, and would provide space for 28 boat trailers. An additional outdoor area for 30 mast-up-capable boats will also be provided on the project site. The focus is providing for smaller boats from 20 to 35 feet in length with the maximum size limited to about 40 feet in length. The stacking layout is depicted in Exhibit 4.3-2 – Dry Stack Boat Storage Front Elevation, and Exhibit 4.3-3 – Dry Stack Boat Storage Side Elevation.

The boat storage structure has been designed with an over-water component that facilitates the transfer of boats by a crane from the storage structure to the water and vice versa. The over-water feature is not unique in Marina del Rey, as other existing structures have over-water components. The dry stack boat storage front elevation shows the crane detail and provides a graphic depiction of the size and the way it will traverse the structure. New dock structures would be constructed to allow for conveyance of people to and from their boats and temporary queuing of boats. Permanent wet slips are not proposed.

The boat queuing plan is depicted on Exhibit 4.3-4 – Boat Queuing. The queuing space provided is based on an analysis of peak boat usage periods for similar dry stack storage facilities and the projected number of boats that can be moved by the crane in one hour. Observed patterns demonstrate that, even on peak days, no more than one-third of the boats will be taken out. The traffic report (page 11) studied a 230-space dry stack storage facility in Newport Beach that showed the maximum use on the summer weekend was 60 boats per day or about 26%. Over a 12-hour work day, with a capacity for queuing 50 to 60 boats and the ability to retrieve about 6 boats per hour, 72 boats could be retrieved. Therefore, more capacity exists to handle (retrieve or temporarily queue) boats than would be anticipated.

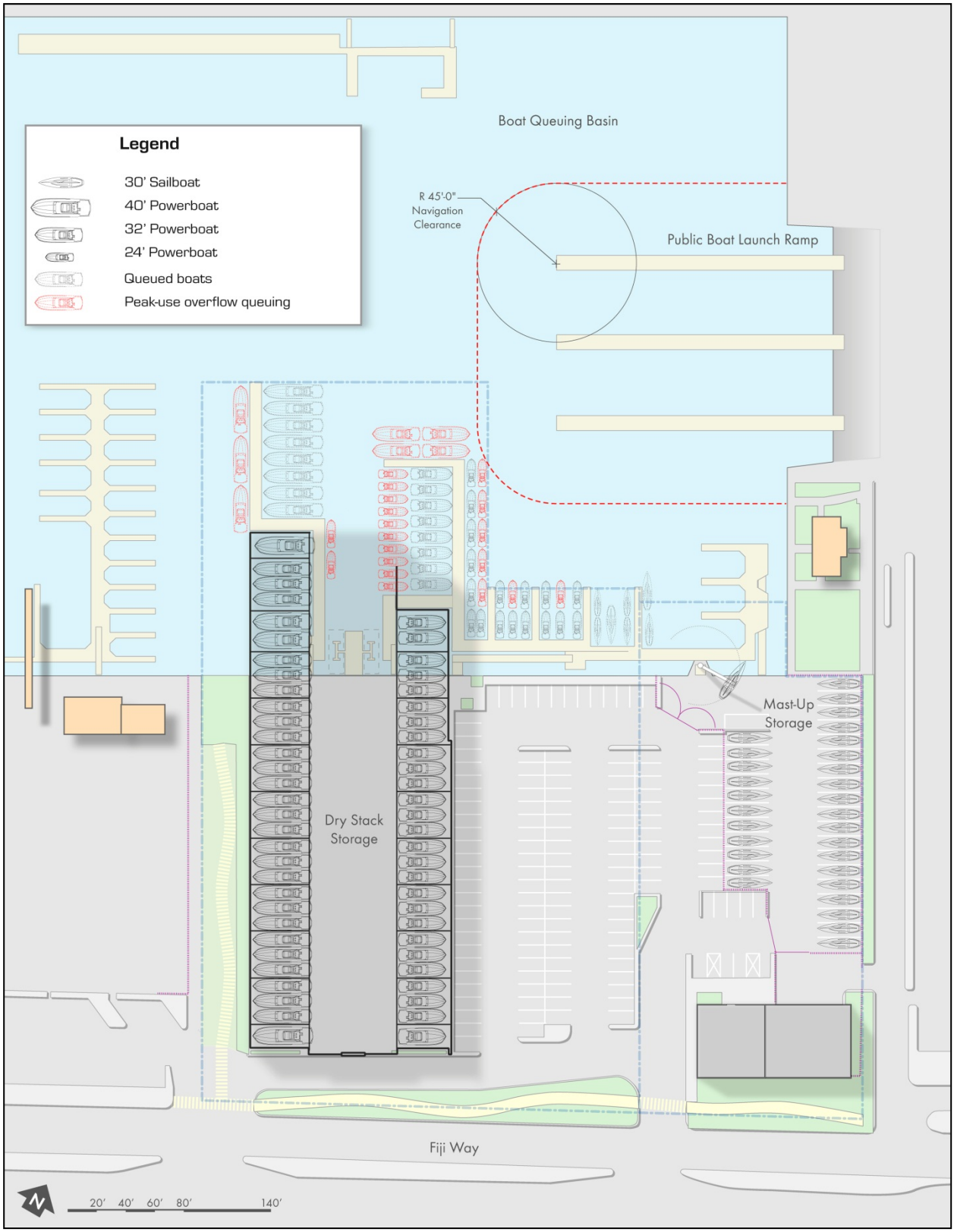


Source: BLUEwater Design Group

Exhibit 4.3-2 – Dry Stack Boat Storage Front Elevation

Source: BLUEwater Design Group

Exhibit 4.3-3 – Dry Stack Boat Storage Side Elevation



Source: AC Martin Partners

Exhibit 4.3-4 – Boat Queuing

Upon request or reservation, the boats will be delivered from the structure to the dock. It is assumed that during the winter months, when daylight is short, the number of launches will be limited. Boats scheduled for early morning pick-up will be launched the prior afternoon. Boats returning after normal business hours will be retrieved the next day. During Daylight Saving Time, the longer daylight hours will generally permit nearly all dry stack activities to occur during the daytime. Occasionally, the volume of launches and retrievals will require working into the evening or starting before daylight to accommodate the demand.

The new dock structure would extend up to 200 feet into Basin H on the western side of the site, which is commensurate with the adjacent docks in front of the boatyard facility. The new docks would extend up to 102 feet into the basin on the eastern side of the structure. The new dock system would be 6,738 square feet and will include thirty 16-inch-diameter piles.

The proposed structure would be approximately 70 feet high. Exhibit 4.3-5 – Elevation 1, and Exhibit 4.3-6 – Elevation 2 show the architectural design of the building, including the portion of the structure that will extend over the water. A gantry crane, track, and protective covering will be approximately seven feet taller than the roof covering the rest of the structure.

Due to the gentle slope of the project site, which descends approximately 8 feet from the street to the bulkhead, the height above ground of the dry stack boat storage structure will be approximately 67 feet at Fiji Way and about 75 feet along the water. The crane and protective covering will range from approximately 70 feet to 81.5 feet in height.

The crane, which spans the central 60 feet of the dry stack boat storage structure and runs its length, will reach a height of around 81.5 feet. Per LACC §22.46.1880, the height of the crane is not regulated. To improve aesthetics and contain mechanical noise, a protective structure will enclose the crane. This structural feature is appurtenant to the roof of the dry stack boat storage structure and will envelope the central corridor within which the crane will maneuver. This screening is common to improve the appearance and silhouette of the structure and ensure protection of the crane from the elements. The screening will also protect birds from flying into the crane. The boat storage structure would protrude into Basin H and overhang the water in an articulated manner. The structure would overhang by approximately 45 feet on the eastern side, and approximately 97 feet on the western side. Along Fiji Way, the structure frontage would be approximately 138 feet of unarticulated structure face.

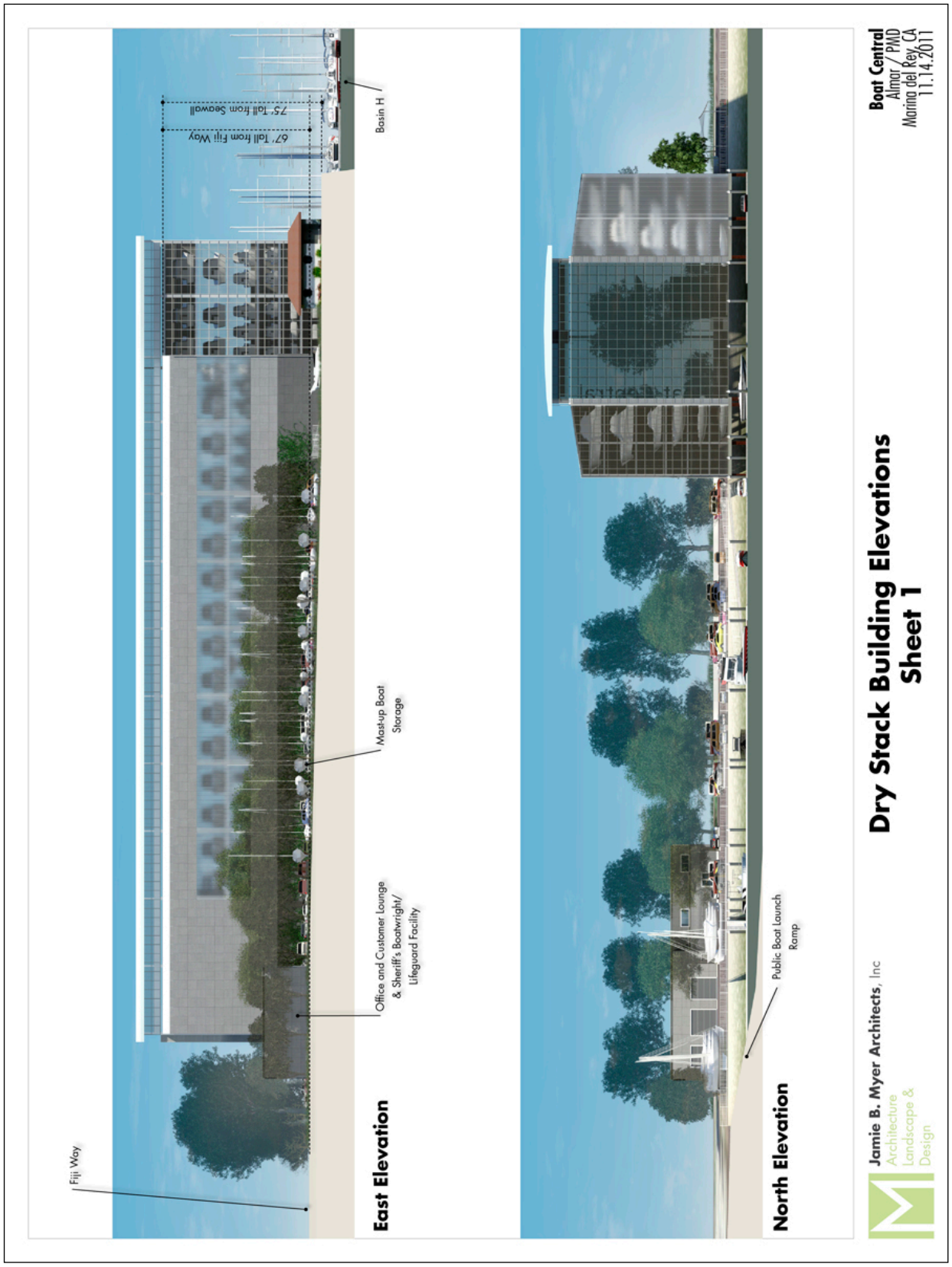


Exhibit 4.3-5 – Elevation 1

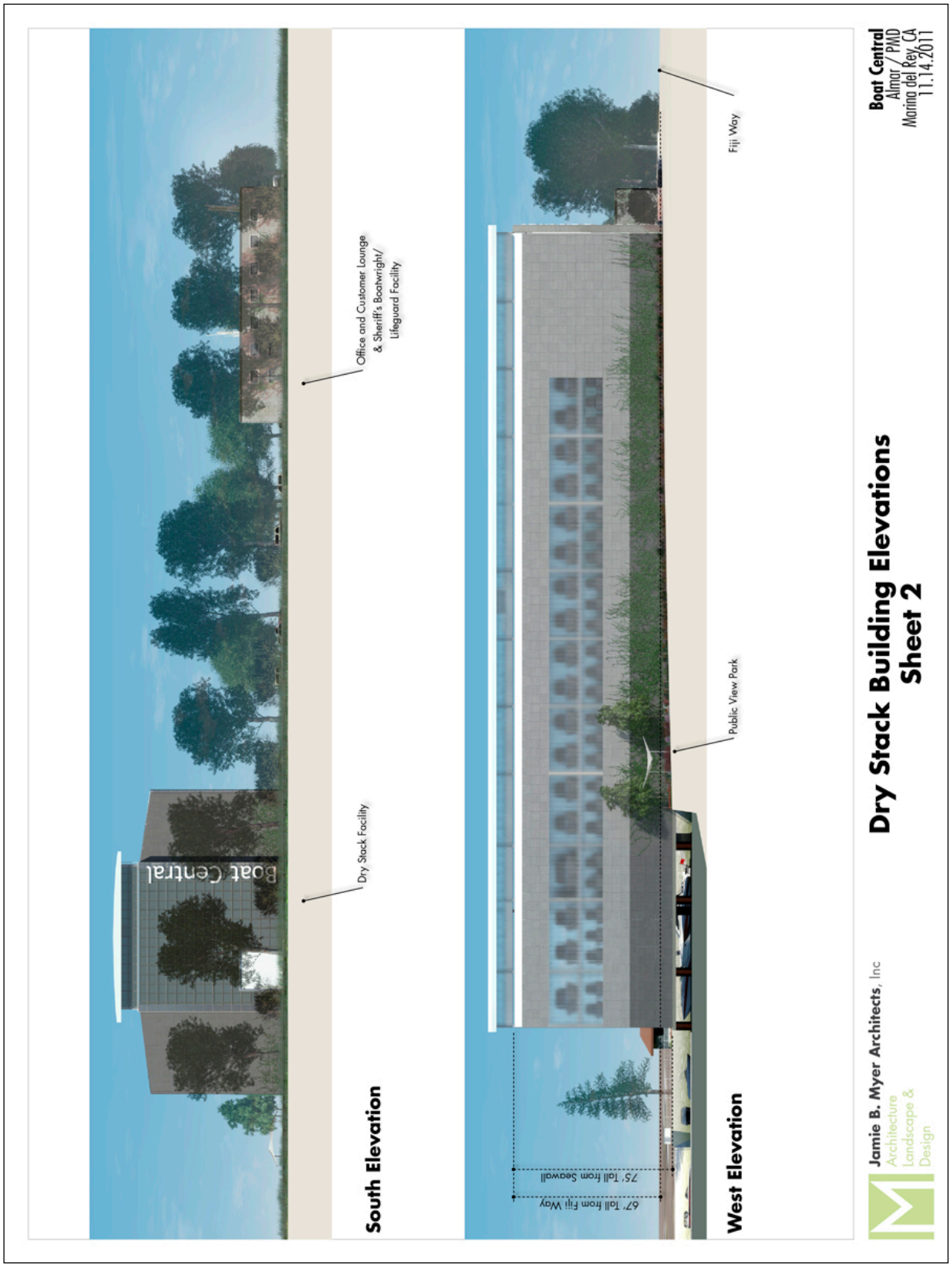


Exhibit 4.3-6 – Elevation 2

The structure will include an architectural cladding of translucent white polycarbonate cement board and stainless steel mesh or a similar material. Sunlight will penetrate the material, providing a well-lit and sheltered workspace. The polycarbonate also filters UV rays and resists salt corrosion, which increases the longevity of the structure. The material is non-reflective consistent with the bird-safe policies of the California Coastal Commission. The visual bulk of the structure is broken up because it has been designed with a mix of materials and colors, which effectively break down the structure's mass into planes. The structure façade will be composed of a mix of translucent white polycarbonate and cement board, a portion of which will be painted. The variation in materials and colors will aid in visually breaking up the bulk of the structure.

The color palette is "seaside neutral" with predominantly cool grey tones to match the sky and the water. The cement board of the dry stack structure will be mostly neutral grey with minor variations due to the manufacturing process. Lower portions of the structure are of the same material, but stained a rich, deep slightly blue hue. The translucent plastic is a very light white/grey tone that, because of its translucence, takes on the qualities of the surroundings. The same color palette will be used for the Sheriff's Boatwright/Lifeguard building.

Building materials and style are shown in Exhibit 4.3-5 – Elevation 1 and Exhibit 4.3-6 – Elevation 2.

A 3,150-square-foot indoor boat repair facility will be located within three bays (each approximately 35 feet by 30 feet) on the ground floor of the boat storage structure. Having the boat repair facility indoors prevents pollutant escape and controls volatile organic compounds (VOCs) commonly associated with boat maintenance activities. The project will include a new pump out facility for boat waste and a fueling station to allow patrons of the dry stack boat storage structure to fill up with fuel. An underground fuel tank will be placed on the landside of the site in the parking lot near the bulkhead and docks. The precise placement of the fuel tank will be determined in consultation between the County and the Regional Water Quality Control Board.

4.3.2 Mast-Up-Capable Sail Boat Storage

Storage for mast-up sail boats would be provided on Parcel GG. The sail boat storage would be located within a gated area, and would contain 30 dry storage spaces. Unlike the dry stack boat storage structure, the sail boats would be stored directly on the ground, and would not be stacked. The proposed sail boat storage spaces are 10 feet wide by 30 feet long. This storage area would also be available to other types of boats with and without mast-up capability. A fixed landside hoist will convey boats to the water. As previously noted, an additional 28 trailer spaces will be provided in the dry stack boat storage structure. A boat wash down facility will also be incorporated into the sail boat storage area. The wash down facility will be located beneath the boat hoist, and will provide an opportunity to wash boats once removed from the water. The runoff from the wash down facility will be filtered then diverted to the

sanitary sewer system; the runoff will not discharge into the marina. The project will also include the creation of two off-site public boat wash down facilities. It is anticipated that the public wash down facilities will be located at the adjacent public boat launch ramp. The off-site wash down facilities may be located elsewhere at the discretion of the County.

4.3.3 Office and Customer Lounge

In addition to the dry stack boat storage structure, a building will house the office and customer lounge and the Sheriff's Boatwright/Lifeguard facility. The building will be located on the southeastern edge of the site, on Parcel GG. The building will be two stories in height, approximately 106 feet by 50 feet in size and will front Fiji Way. The building will be divided into two distinct components including the office and customer lounge and the Sheriff's Boatwright/Lifeguard facility. The customer lounge will include a visitor reception facility, showers, restrooms, and personal lockers. The visitor lounge will be approximately 2,320 square feet on the first floor of the building. An office for the boat storage structure will be located on the second floor of the building. The office will be approximately 750 square feet, and will be utilized for administrative purposes only. Exhibit 4.3-7 – Lounge and Boatwright Building Elevations – Sheet 1, and Exhibit 4.3-8 – Lounge and Boatwright Building Elevations – Sheet 2, depict the architectural style and building materials. Exhibit 4.3-9 – Lounge and Boatwright Building Floor Plans, shows the layout for the first and second floors.

4.3.4 Sheriff's Boatwright/Lifeguard Facility

The new 2,835-square-foot Sheriff's Boatwright/Lifeguard facility will be located in the same building as the office and the customer lounge. A 430-square-foot area for Sheriff's offices will be located on the second floor. The Sheriff's Boatwright/Lifeguard facility and offices are an existing use that will be retained on the site. A fenced boatwright yard will be located immediately north of the building. The yard will be approximately 2,200 square feet and will allow for maintenance and repair operations for the Sheriff's Boatwright/Lifeguard facility. As noted above, the building elevations and floor plans are shown on Exhibit 4.3-7, Exhibit 4.3-8, and Exhibit 4.3-9 above.

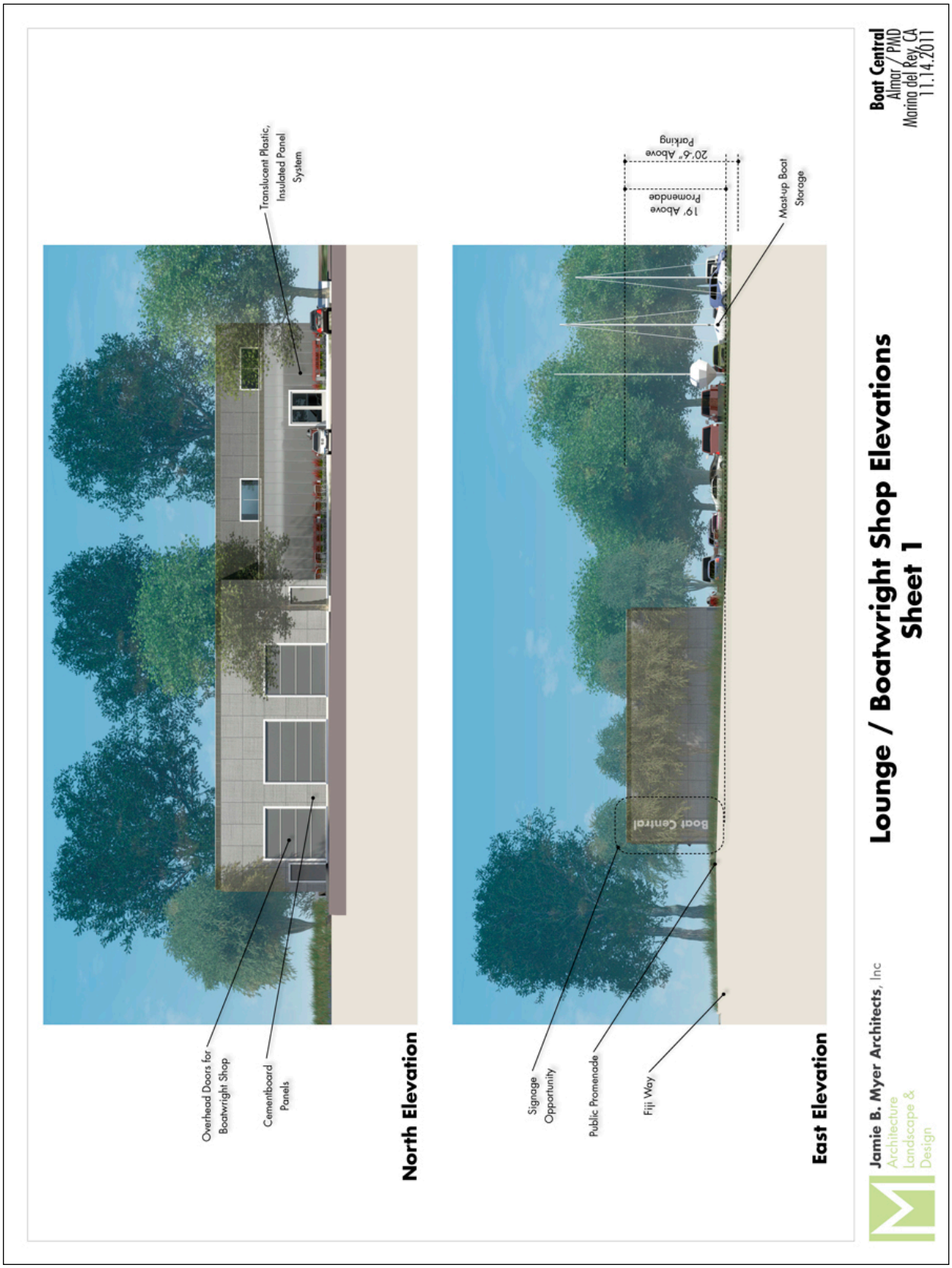


Exhibit 4.3-7 – Lounge and Boatwright Building Elevations – Sheet 1

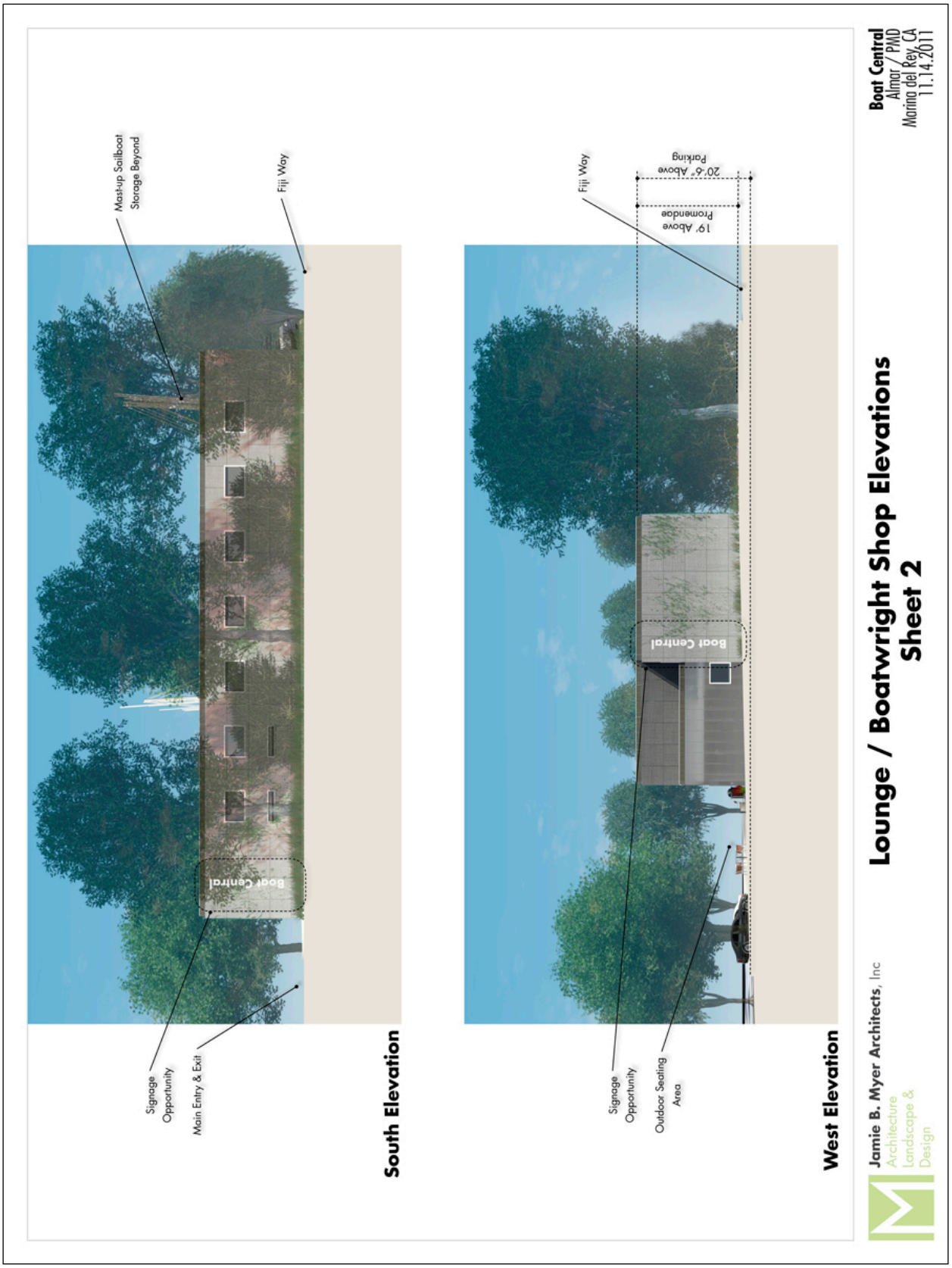


Exhibit 4.3-8 – Lounge and Boatwright Building Elevations – Sheet 2

Exhibit 4.3-9 – Lounge and Boatwright Building Floor Plans

4.3.5 Public Access

1. Public Promenade

Public access will be provided across the site along Fiji Way and via a landscaped public promenade along the western edge of the site. The Promenade is shown on Exhibit 4.3-1 – Proposed Site Plan (page 4-11 above). Both sections of the public promenade, as well as the view park discussed below, total over 17,000 square feet of public space. All development within the marina is required to provide pedestrian access to the shoreline, except where public safety is an overriding consideration.[3] Because of the project's components, including the heavy machinery associated with the dry stack crane and the sailboat hoist, interface with pedestrians could create potentially dangerous conditions. The Marina del Rey Land Use Plan (page 1-6) states that:

While public access is an issue of concern and a theme found throughout the Coastal Act, the demands of safety and security (Coastal Act policy §30210) require that certain areas be precluded or restricted from public entry. Public safety concerns dictate excluding the public from areas maintaining potentially hazardous activities, such as boat yards, maintenance yards, flood control projects, Southern California Gas Company facilities, and private launching facilities.

Therefore, to ensure public safety, a waterfront promenade along the entire waterside portion of the site is not feasible. While views of the water will be available across the parking lot, no walkway will be provided to the adjacent water, However, a public promenade nearly 600 feet in length will be provided that extends much of the length of Fiji Way and along the western side of the dry stack boat storage structure, terminating in a waterfront view park.

2. Public View Park

The project will still provide a promenade that overlooks that marina. This portion of the public promenade along the west side of the dry stack boat storage structure will be up to 32 feet wide by approximately 200 feet long providing a walking path and landscaping. A small park, approximately 1,560 square feet in size, will be located at the terminus of the walking path overlooking the marina and will compensate for the lack of waterfront promenade across the entire site due to safety concerns. This section of the promenade, which includes the view park area is approximately 8,240 square feet in size. Approximately five feet of vegetation, including a row of shrubs and trees, will be placed alongside the dry stack boat storage structure as a buffer, and will help lead the public to the waterfront area. Signage will be placed to notify the public of the park's existence and their ability to utilize the public park. The park will include hardscape features including a picnic area with benches. A landscaped promenade will also be provided for the entire project boundary along Fiji Way for a total of approximately 600 feet of promenade along the site, as depicted on Exhibit 4.3-10–

[3] Marina del Rey LUP §A.1.e, Policy 1, p 1-7; 22.46.1160

Promenade Areas. The landscaped promenade fronting the office and the Sheriff's Boatwright/ Lifeguard facility will provide 3,850 square feet of open area. The landscaped area fronting the parking lot and the dry stack boat storage structure will total 5,350 square feet of additional vegetated and promenade area. A total of 17,440 square feet of promenade, park, and landscaping are included for public use and viewing.

4.3.6 Environmental Features

In October 2008, the Los Angeles County Board of Supervisors adopted ordinances related to Green Building, Low Impact Development (LID) Standards, and Drought Tolerant Landscaping. Dry stack storage facilities are not included in green building regulations. However, the office/lounge/boatwright building will be designed to comply with all standards in force and required by the County to accomplish the goals of the Green Building Ordinances. Additional discussion of the Green Building Ordinance is contained in Section 5.7, Land Use and Planning (beginning on page 5-189).

Because the boat storage structure is a unique building type, it does not qualify for certification under Leadership in Energy and Environmental Design (LEED). However, the project includes several features that aim to reduce impacts on the environment. Specifically, the structure will be energy efficient. The architectural cladding of the structure will be translucent polycarbonate, cement board, and stainless steel mesh. This will allow sunlight into the structure, providing a well-lighted workspace. Artificial lighting will not be necessary in the majority of the structure during daylight hours. The structure will also be designed in a way to take advantage of natural ventilation. The structure will be open in the front along Basin H. Additionally, much of the exterior envelope is made from recycled content and is recyclable. The polycarbonate is 10% recycled content and 100% recyclable. The cement board is 28% recycled content, and the steel mesh is 75% recycled content and 100% recyclable.

The project, as a dry stack boat storage structure, will not include wet slips. Wet slips take up a significant amount of water surface, approximately 200 to 290 square feet per slip. The dry stack boat storage structure will occupy approximately one-quarter acre of water. If 375 boat slips were developed as wet slips, the project would require 2.5 acres of water. This would create 10 times the amount of shade that would result when using a dry stack design with a partially translucent skin for the same number of slips. Additionally, with dry storage, the amount of pollutants in the marina is less than with wet slips. Hull paint, fuel, and oil pollution occur with permanent wet slips. Dry stack spaces and the indoor boat repair facility will reduce the addition of pollutants to the marina waters and control volatile organic compounds (VOC), a source of air emissions.

Development of the project site with the dry stack boat storage project will increase the amount of permeable surface approximately 120% compared to the existing

condition. The increase in permeable surface will reduce the amount of untreated surface runoff into the marina and into the storm drains. Drought-tolerant and drip-irrigated species of plants will be utilized, limiting the need for irrigation. Additionally, shade trees will be utilized throughout the parking lot to reduce the "heat island effect" in the parking lot; 25% of surface parking will be shaded after five years. Additional discussion of water quality and permeable surface is included in Section 5.6, Hydrology and Water Quality (beginning on page 5-137), and additional discussion of landscaping is contained in Section 5.1, Aesthetics (beginning on page 5-1).

4.3.7 Construction Schedule

Construction of the project, including demolition, is expected to take approximately 11 months, with an anticipated completion date in late 2012 or early 2013. The Department of Beaches & Harbors plans to temporarily relocate existing Sheriff and lifeguard functions to a nearby location during construction and clean-up. Construction staging is expected to be limited to worker parking and periodic, short-term storage of materials. The staging area will likely be on-site or in an area of the adjacent launch ramp property or Parcel 77. Construction activities and staging are not expected to result in any closure of the nearby bike path that runs along Fiji Way adjacent to the site. Accordingly, the project is in accordance with LACC 22.46.1880 which requires that the regional bicycle trail be retained or reconstructed as part of any redevelopment in the development zone.

The demolition and construction timelines and number of pieces of heavy equipment for the project are estimated as:

- Demolition – 30 days using 6 pieces of equipment – Demolition includes two structures totaling approximately 3,100 square feet with a volume of 30,000 cubic feet of material.
- Mass Grading – 1 month using 9 pieces of equipment – Mass grading includes land clearing and grubbing operations. Also included are parking lot and pile driving operations along the waterfront.
- Fine Grading – 2 weeks using 4 pieces of equipment – Fine grading is the preparation of the ground surface for construction to achieve final site grade.
- Site Trenching/Foundation Work – 2 weeks using 4 pieces of equipment – This phase includes site preparation for utilities and foundation/footing work.

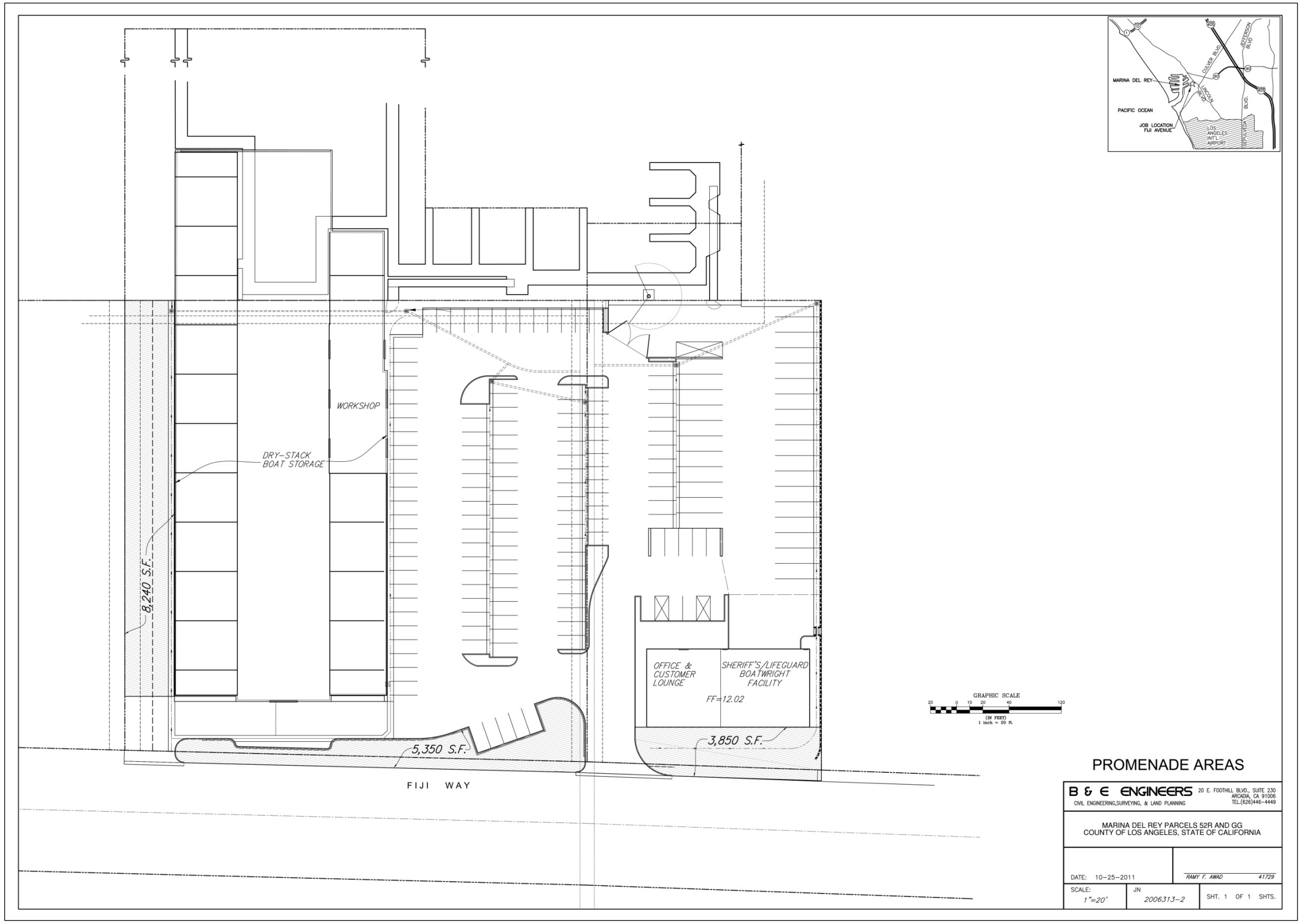


Exhibit 4.3-10 – Promenade Areas

- Building Construction – 6 months using 11 pieces of equipment – Construction includes the fabrication of the boat storage structure and the construction of the customer lounge/offices and the Sheriff's Boatwright/Lifeguard facility. Included are the crane installation and waterside improvements.
- Architectural Coatings – 2 months – Includes finish work and application of paint and coatings.
- Asphalt Paving – 10 days using 9 pieces of equipment – This phase includes paving of the parking lot and certain other areas of the site.
- Landscaping – could occur concurrently with other phases of the project.

The proposed times and equipment are based on a worst case scenario and are further detailed in Section 5.2, Air Quality (beginning on page 5-29).

Construction equipment will include trucks, graders, bulldozers, and concrete mixers. Additionally, pile driving equipment will be necessary in accordance with the design specification of the landside and waterside portions of the site. Construction cranes will be necessary to construct the dry stack boat storage structure. The construction phasing plan will identify demolition plans and construction staging among other issues. Best management practices will be incorporated into the construction phasing plans to minimize construction related impacts on surrounding uses. It is anticipated that approximately 20,400 cubic yards of export material will result from project demolition and grading.

4.4 Discretionary Approvals

This Environmental Impact Report is intended to provide complete and adequate California Environmental Quality Act (CEQA) coverage for all actions and approvals associated with ultimate development of the proposed project. The following approvals are required for project implementation.

4.4.1 Specific Plan Amendment – Project Specific

An amendment to the Specific Plan is required to allow a change of land use category from Public Facility to Boat Storage with the Waterfront Overlay Zone (WOZ) on the landside to allow for the dry stack boat storage and to expand along Fiji Way the WOZ pattern that currently exists on the two parcels immediately west (Parcels 53 and 54). The County is also requesting an Amendment to the Specific Plan to add the Public Facility land use category to Parcel 49M to allow for the development of the Department of Beaches & Harbors headquarters (a portion of which is currently housed in Parcel GG) on this site. Table 4.4-1 depicts the existing and proposed land use categories.

Table 4.4-1 Proposed Changes to Land Use Categories

Property	Size	Land Use Categories	
		From	To
Waterside	1.11 acres	Water	Water
Landside	3.09 acres	Public Facility	Boat Storage + WOZ

4.4.2 Local Coastal Program Amendment

An amendment to the LCP, approved by the Commission, is necessary to allow for the Amendments to the Specific Plan as described above. As stated in the Specific Plan, "amendments to the County Code that affect sections cited in this Specific Plan shall not apply to this Specific Plan until certified as amendments to the LCP by the California Coastal Commission."[4] To maintain LCP consistency, along with the Specific Plan Amendment, the LUP shall have to be updated to reflect the change of land use category on the property from Public Facility to Boat Storage with the WOZ and to add the Public Facility category to Parcel 49M. This would include but may not be limited to updating the description of the Mindanao Development Zone in the Specific Plan and the LUP as well as the labeling of Exhibits 2, 12, 13 and 17 in the Specific Plan and Maps 7, 16, 17 and 21 in the LUP. Additionally, the LUP shall have to be updated to include the requested text amendments to the Water land use category. Refer to Table 4.4-2 below for a summary of the changes to the LCP. Proposed deletions are indicated by ~~strikeout~~, and proposed additions are indicated by <u>underline</u>.

Exhibit 5.7-2 – Proposed LCP Land Use Designations (page 5-209) depicts the existing and proposed land use designations for the site.

[4] LACC §22.46.1030

Note: Although this project proposes an amendment to both the Land Use Plan and the Implementing Plan (Specific Plan) of the Marina del Rey LCP, it is acknowledged that the County of Los Angeles has separately pursued the LCP amendment for a series of projects, better known as the "Pipeline Projects Amendment." This Amendment was approved by the Coastal Commission on November 3, 2011. Final CCC approval is expected as a consent calendar item in early 2012.

4.4.3 Specific Plan Amendment – Marina-Wide

The Applicant requests changes to the Water land use category to allow boat storage facilities on a parcel's waterside. Specifically, the Amendment request includes: 1) a text amendment to Los Angeles County Code (LACC) §22.46.1670.B to add "Dry stack storage attached to a landside structure" to the list of *Permitted uses*; and 2) a text amendment to LACC §22.46.1690 to allow dry stack storage facilities on the Water-designated portion of a parcel at the heights allowed by the land use category on the land side of a parcel.[5] Additional related changes to the text of the LUP and the Specific Plan will be necessary. Refer to Table 4.4-2 and Table 4.4-3 below for a complete summary of proposed changes.

4.4.4 Conditional Use Permits

Per LACC §22.46.1480, regarding Boat Storage uses, a Conditional Use Permit (CUP) is required for dry stack boat storage buildings and publicly owned uses necessary to the maintenance of the public health, convenience or general welfare (the Sheriff's Boatwright/Lifeguard facility). LACC §22.46.1160 permits the relocation of public access to ensure pedestrian safety. Further, per LACC §22.46.1680, regarding Water uses, the project will require a CUP to allow for ancillary, dockside fueling of tenants' boats.

[5] The primary proposed land use category on the land side is Boat Storage. Per LACC §22.46.1490, Boat Storage allows heights to "a maximum of 25 feet, except that dry stack storage uses may be allowed a maximum of 75 feet when allowed by Site-Specific Development Guidelines." Per LACC §22.46.1880, the Site-Specific Development Guidelines for the property allow heights up to 75 feet when an expanded view corridor is provided.

Table 4.4-2 Proposed Amendments to the Marina del Rey Land Use Plan

Section	Proposed Change
LUP Text Amendments	
A.1. Shoreline Access (Page 1-3)	Public (County) property, subject to restrictions – Parcel ~~GG~~ 49M ~~at the eastern end of Basin H~~.
A.1. Shoreline Access (Page 1-6)	Minimum Awareness: Shoreline adjacent to private and commercial uses like apartments, ~~and~~ boat clubs, and dry stack facilities.
A.1. Shoreline Access (Page 1-7)	3. All development in the existing Marina shall be designed to improve access to and along the shoreline. All development adjacent to the bulkhead in the existing Marina shall provide pedestrian access ways, benches and rest areas along the bulkhead, except where safety may be compromised, such as boatyards and dry stack facilities.
A.2. Recreation & Visitor-Serving Facilities (Page 2–5)	Parcel 52 is being proposed as the site for a dry stack boat storage structure. ~~the new office headquarters for the Dept. of Beaches and Harbors.~~ The Waterfront Overlay Zone is applied to the landside portion of this parcel to ensure that opportunities for public access are not limited except with respect to the allocated development intensity. If a use other than Boat Storage is proposed, a same-size boat storage structure shall be located elsewhere in Marina del Rey. ~~A~~ The new office will be relocated to Parcel 49M. ~~necessitated when the current office site on Parcel 62 is demolished to make way for the new marina channel entrance for Area A. A yet-to-be determined number of public parking spaces will be incorporated into the design of this new office facility.~~
A.2. Recreation & Visitor-Serving Facilities (Page 2–6)	FIGURE 3 COUNTY OWNED PARKING LOTS Lot / Parcel / Address / Capacity / Remarks 4 / 49M / 13500 Mindanao Way / 227 (minimum) / Replacement Parking (124 existing, 103 Parcel FF) ~~52 / 13051 Fiji Way / 245 / Temporary Parking~~
A.2. Recreation & Visitor-Serving Facilities (Page 2–8)	No designated public parking areas, including, but not limited to Lots OT, UR or FF, except for Temporary Parking areas, shall be converted to uses other than public parking or public park purposes.
A.3. Recreational Boating (Page 3-3)	~~Boats stored at parcel 52 will be brought by trailer to the ramp or will use an on-site hoist. In addition, the lessee of parcel 53 is designing a 140 boat dry stacked storage facility~~. A dry stack boat storage structure is proposed for Parcel 52, and mast-up storage with an on-site launch hoist is proposed for Parcel GG. The Water Overlay Zone will provide an opportunity for other potential visitor serving amenities of a limited character (such as a beverage facility at the park, boat rentals, bike rentals, and the like).
A.3. Recreational Boating (Page 3-5)	Deck storage for sailboats may be constructed on a portion of Parcel 49, and dry stack storage may be constructed on Parcels 52 and GG ~~parcels 53~~ or on other parcels with a marine commercial or visitor serving commercial designation, as long as ~~public parking and~~ views are preserved and adequate public parking is made available.
C.8. Land Use Plan (Page 8-11)	Water: Permitting recreational uses, wet boat slips, dry stack storage attached to a landside structure, docking and fueling of boats, flood control and light marine commercial.
C.8. Land Use Plan 9. Mindanao DZ (Page 8-18)	WOZ / Parcel 52 / - Boat Storage ~~Public Facility~~ - Water WOZ / Parcel GG / - Boat Storage ~~Public Facility~~ - Water
C.8. Land Use Plan 9. Mindanao DZ (Page 8-18)	Parcel 49M / - Parking - Public Facility
LUP Map Amendments	
C.8. Land Use Plan (Map 17: Mindanao DZ Land Use) (Maps 7, 16 & 21)	52 (land): Boat Storage + Waterfront Overlay 52 (water): Water GG (land): Boat Storage + Waterfront Overlay GG (water): Water
C.8. Land Use Plan (Map 17: Mindanao DZ Land Use) (Maps 7 & 16)	49M: Parking + Public Facility

Table 4.4-3 Local Implementation Plan (LIP) Text Amendments

Section	Proposed Change
LIP Text Amendments	
LACC 22.46.1080	- Water: A category for recreational use, wet boat slips, dry stack storage attached to a landside structure, docking and fueling of boats, flood control and light marine commercial.
LACC 22.46.1670.B	B. The following permitted uses: - Bicycle and pedestrian path rights of way - Boat docks, piers - Boating-related equipment storage - Dry stack storage attached to a landside structure - Public view areas - Schools for boating, sailing and other marine-related activities in which teaching is done on the water - Wet slips
LACC 22.46.1690	These standards shall apply for all uses in the Water category: - Building height is limited to a maximum of 15 feet, except that dry stack storage facilities shall be allowed at heights permitted by the land use category on the land side of the parcel - Development of new boat slips must be accompanied by adequate parking and landside facilities, including boater restrooms.
LACC 22.46.1880	- Parcel 52 Categories: Boat Storage ~~Public Facilities~~ Waterfront Overlay Water - Parcel GG Categories: Boat Storage ~~Public Facilities~~ Waterfront Overlay Water
LACC 22.46.1880	- Parcel 49M Categories: Parking Public Facility
LACC 22.46.1880	Required public improvements: - On Parcels 52, GG, 53 and 54, said promenade shall only be constructed along the water if determined to be safe. ~~and shall connect the promenade to Fiji Way~~ Access to the waterfront shall be provided along the property line between Parcels 52 and 53. A view park shall be constructed in lieu of the promenade. - In the event that a dry stack facility is not constructed on Parcel 52, no other use may be established until such time as a new site for a dry stack facility is designated in Marina del Rey.
LIP Map Amendments	
LACC 22.46 (Exhibit 2: Land Use Plan) (Exhibit 13: Mindanao DZ) (Exhibits 12 & 17)	52 (land): Boat Storage + Waterfront Overlay 52 (water): Water GG (land): Boat Storage + Waterfront Overlay GG (water): Water
LACC 22.46 (Exhibit 2: Land Use Plan) (Exhibit 13: Mindanao DZ) (Exhibit 12)	49M: Parking +Public Facility

4.4.5 Coastal Development Permit

Approval of a Coastal Development Permit (CDP) is required to permit construction within the Specific Plan area and to evoke the authority to locate the pedestrian promenade away from the waterfront in the interest of public safety[6]. In addition, approval will be required since regulations dictate that structures cannot be located and mobile cranes used for launching or retrieving boats shall not be used on the landside of the bulkhead closer than the 15-foot setback required for fixed structures without prior approval from the County.[7]

The LUP[8] requires that all applications for development go through the Coastal Development Permit process and provide evidence of consistency with Coastal Act policies and the LCP. The Applicant requests that the CDP be conditioned to allow only those uses allowed for in the Boat Storage land use category under this CDP, providing assurance to the community as to the scope of the project.

4.4.6 Parking Permit

A Parking Permit will be requested to permit the provision of on-site parking at a ratio of 0.36 cars per boat space as well as valet parking. The use of valet parking would be instituted only in select instances to ensure that parking demand does not reach capacity. Per the Architectural Standards, dry land boat storage uses must provide parking at a rate of one-half parking space per boat space provided and per the LACC spaces shall be required for the Boatwright portion of the accessory facility as determined by the Director of Planning. A parking analysis is provided in Section 5.11 – Transportation and Traffic (beginning on page 5-249) that identifies the methodology and required parking.

4.4.7 Setback Variance

A variance will be requested to allow for variation from the standards of LACC §22.46.1490 which sets forth a rear setback of 5 feet. The over-the-water design of the boat storage structure does not comply with this requirement when measured from the bulkhead. While the site's leasehold "property line" extends some 200 feet into the basin channel, the Applicant takes a conservative approach in measuring the setback from the edge of the landside. Further, the Variance request is in line with the requirements of the Architectural Standards which state that no structure be permitted within 15 feet from the face of the bulkhead.

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6 LACC §22.46.1160; Attachment A of Project Application

7 Amendments to the County of Los Angeles Marina del Rey Local Implementation Program, Appendix C, Specifications and Minimum Standards of Architectural Treatment and Construction, page 52. .

8 Marina del Rey LUP, §C.8.e, Policy 7. p 8-9

4.5 Project Goals and Objectives

CEQA Guidelines §15124 requires an EIR to include a statement of objectives sought by the proposed project. This disclosure assists in developing the range of project alternatives to be investigated in the EIR, as well as providing a rationale for the adoption of a Statement of Overriding Considerations, if one is in fact adopted. Identified below are goals and objectives related to the proposed project:

- Development of a state-of-the-art dry stack boat storage structure, incorporating boater-friendly, water-oriented design
- Bring a new option of boat storage and a new level of service to the Marina del Rey boating community
- Increase the number of boat storage spaces within Marina del Rey
- Provide docking facilities that are compliant with the Americans with Disabilities Act (ADA)
- Encourage recreational boating and visitation and use of the marina's retail, restaurants and public facilities in the project vicinity
- Preserve open water area for recreational boating by expanding boat storage facilities on dry land instead of constructing wet slips
- Take advantage of site design to reduce contribution of pollutants normally associated with wet slips and boat maintenance

4.6 Intended Uses of the EIR

1. Agencies that are expected to use the EIR in their decision making
   - County of Los Angeles as Lead Agency
   - Regional Water Quality Control Board as a Responsible Agency
   - California Department of Fish and Game as a Trustee Agency
2. Permits or other approvals required to implement the project
   - California Coastal Commission
   - Army Corps of Engineers
   - Regional Water Quality Control Board
   - California Department of Fish and Game
   - United States Coast Guard
3. Subsequent Use of the EIR

   In accordance with CEQA Guidelines §15168(c), subsequent projects identified within the scope of the EIR may rely on this document without the preparation of

a new environmental document or the preparation of new findings so long as the project was contemplated in the EIR. Subsequent projects include, but are not limited to, Master Plans, Tentative Tract Maps, and Final Maps. The County must examine each subsequent action requested to determine whether it was described in the EIR. In accordance with CEQA Guidelines §15168(c)(1), "If a later activity would have effects that were not examined in the EIR, a new initial study would need to be prepared leading to either an EIR or a negative declaration." However, no new environmental documentation would be required where the subsequent action/project is within the scope of the EIR so long as no new effects would occur, and no additional mitigation measures would be required. Pursuant to CEQA Guidelines §15168(c)(3), the County would need to incorporate feasible mitigation measures and alternatives developed in the EIR into subsequent actions.

5. Environmental Setting, Impacts, and Mitigation Measures

5.1 Aesthetics

The purpose of this section is to identify the existing aesthetics (visual quality) environment in the project vicinity, analyze compliance with the Marina del Rey Local Coastal Program (LCP), identify potential significant impacts created by the project, and recommend mitigation measures to reduce the significance of impacts. Information in this section is based on visual simulations and plans prepared by the project architects, AC Martin Partners, Inc. and Jamie Myer Architects, Inc., and site visits by CAA Planning.

5.1.1 Existing Setting

The project site is approximately 4.2 acres (3.09 acres of land and 1.11 acres of water), and comprises 2 parcels referred to as "Parcel 52" and "Parcel GG." The topography of the site ranges from a height of 15 feet above sea level at the southern portion of the site along Fiji Way, sloping down to a height of 7 feet above sea level at the northern portion of the site, adjacent to the water. The waterside portion of the site is located within Basin H of the marina, which is the first easterly basin within the marina. Pedestrians and motorists traveling along Fiji Way generally have a clear view of the project site. However, the temporary public parking lot is used by cars, vans, and trucks, all of which contribute to view blockage of the water from Fiji Way.

Parcel 52 is oriented to the west and is currently developed with a temporary public parking lot containing 245 parking spaces. The majority of the site is paved; however, a small grassy berm runs parallel to Basin H, and 24 mature palm trees are located on the berm. Access to the site is provided via two driveways along Fiji Way.

Parcel GG is oriented to the east and is currently developed with the Marina del Rey Sheriff's Boatwright/Lifeguard maintenance shop and maintenance/storage yard. Additionally, five office trailers used by the Los Angeles County Department of Beaches & Harbors are located on the site. A limited number of parking spaces are located on Parcel GG. The buildings currently on-site are one story in height.

The proposed project is within the Marina del Rey Small Craft Harbor, which is a significant "sea-oriented" recreational land use within the County of Los Angeles. The Harbor attracts boaters and non-boaters alike because of its abundance of visual resources and recreational opportunities. Marina del Rey is characterized by mid-rise and high-rise buildings along Admiralty Way, with mid-rise and low-rise development

closer to the marina. The immediate project vicinity is characterized by industrial development, including the public boat launch ramp and a public parking lot with dry boat storage adjacent to the site to the east and northeast. Two boat repair facilities are located immediately west of the site, including the boatyard facility to the west and The Boat Yard. These businesses offer boat maintenance and repair services. Wet slips are located in the marina fronting both facilities. Across Basin H is another parking lot with dry boat storage.

Other land uses nearby the project site include office buildings, shopping areas, and marina-related uses including boat sales and yacht clubs. Fisherman's Village and the Villa Venetia housing development, Beaches & Harbors Headquarters, and the Sheriff's Station are located farther along Fiji Way. The Burton Chace Park is located across Basin H to the west. Area A of the Ballona Wetlands Ecological Reserve is located across Fiji Way to the south of the project site. Area A runs the length of Fiji Way and is bounded by Lincoln Boulevard Highway 1 to the east and the Ballona Creek to the south.

5.1.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles has not adopted thresholds of significance for aesthetics. Thus, for purposes of this analysis, the applicable thresholds listed in CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact with respect to aesthetics if it would:

a) Have a substantial adverse effect on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

In addition to the CEQA Guidelines thresholds, the Marina del Rey Local Coastal Program (LCP) addresses coastal view resources. The Marina del Rey Land Use Plan (LUP) is a component of the Los Angeles County Local Coastal Program. The Land Use Plan addresses the coastal visual resources within Marina del Rey. The plan states that the most significant qualities of the area in terms of visual resources are the waters within the small craft harbor, the boats, and boating-related elements (e.g., masts, sails, moles, and slips).[9] The LCP lists the following as particularly significant vantage points within the marina:

[9] Marina del Rey LUP §C.9.c. p 9-1

- Burton Chace Park
- Bike path along the northern boundary of the flood control channel
- Parking lot just northwest of the County Fire Station (view of the main channel)
- North jetty viewing area (good views of bluffs, as well)
- Major streets (Via Marina, Admiralty Way, and Fiji Way)
- Fisherman's Village
- Ends of moles, and lands adjacent to the Main Channel[10]

In addition to the impacts recognized by the LCP, the EIR also considers impacts to the Ballona Wetlands Ecological Reserve.

This section of the EIR analyzes impacts from the perspective of the thresholds listed above.

5.1.3 Project Impacts Prior to Mitigation

The Marina del Rey Land Use Plan discusses how development trends in the marina have hindered the ability of the public to view the waterfront. The LUP also discusses the importance of building flexibility into the design of mole structures so that greater waterfront view can be created. By allowing taller but narrower structures to be built, greater view corridors can be maintained.[11] The proposed project has a tall and narrow design to maximize the view corridor.

1. Building Structure - Height and Massing

The design of existing development, particularly several residential projects on the west side mole roads, has hindered the ability of the public to view the waterfront. Much of this design consists of low-rise, rectilinear buildings taking up most of the linear frontage along the bulkhead. The proposed boat storage structure is tall and narrow in design and allows a greater view corridor of the marina to be maintained than a low-rise and wider structure.

The Boat Storage land use category provides a height limit of 75 feet for boat storage facilities and 25 feet for commercial support facilities. The boat storage structure is within the height allowance. No height limit is provided for the boat hoists or cranes, consistent with LACC §22.46.1880. The crane and the protective enclosure will be 81.5 feet at the highest point.

As proposed, the maximum height of the structure above ground ranges from 73.5 feet to 81.5 feet where the storage rack structure interfaces with the boat hoist

[10] Marina del Rey LUP §C.9.c. p 9-2
[11] Marina del Rey LUP §C.9.c. p 9-2&3

superstructure. The majority of the roof will be approximately 67 to 75 feet above ground. The gantry crane, track, and protective covering will be approximately 60 feet in width, spanning the entire length of the building and extending to a height of 81.5 feet at the highest point.

The waterside frontage of the site is 400 feet. The proposed view corridor area is approximately 200 feet along the water, providing a 50% view corridor. The view corridor provided, based on the height of the dry stack boat storage structure, is consistent with the development standards of the LCP. These heights are measured from the top of the bulkhead and would be seven feet shorter from the Fiji Way perspective due to grade differential across the site.

Measures have been taken that reduce the impact of the structure's scale. By orienting the narrow ends of the structure to the street and Basin H, the mass of the structure does not block views of the harbor. This structure orientation reduces the visual scale of the structure.

The following exhibits are computer-generated views that depict the current and proposed views of the project site from various perspectives.

Exhibit 5.1-1 – Views from Southern Public Boarding Float depicts the current and proposed view of the project site from the end of the southern-most public boarding dock at the public boat launch ramp. Similar to the previous view, the project will add building height and mass not currently experienced in Basin H and the structure will block views of the parking lot and adjacent boatyard facility. A large portion of the wet slips fronting Parcel 53 will remain visible. The main channel of Basin H will not be obscured or obstructed. Views directly into the boat storage structure will be visible from this location.

Exhibit 5.1-2 – Views from Fiji Way depicts the current and proposed view of the project site from Fiji Way, looking north/northwest. Under the current condition, Basin H is generally obscured from view by the existing County facilities on Parcel GG, and by the cars parked on Parcel 52. A small view of the basin is currently afforded in line with the drive way. Under the proposed condition, the grade of the site will be slightly lowered, and a larger portion of the basin will be visible. A view corridor will be provided through the site between the lounge and Boatwright building and the boat storage structure. As depicted in the proposed view, the project will add building height and mass to the project site, not currently present.

Source: Jamie B. Myer Architects, Inc. Current View from Southern Public Boarding Float

Source: Jamie B. Myer Architects, Inc. Proposed View from Southern Public Boarding Float

Exhibit 5.1-1 – Views from Southern Public Boarding Float

Source: Jamie B. Myer Architects, Inc. Current View from Fiji Way

Source: Jamie B. Myer Architects, Inc. Proposed View from Fiji Way

Exhibit 5.1-2 – Views from Fiji Way

Exhibit 5.1-3 – Views from Public Launch Ramp depicts the current and proposed view of the project site from the northerly portion of the public boat launch ramp, northeast of the site. As depicted in the proposed view, the project will add building height and mass to the project site, not currently present. From this vantage point, current views are of surface parking, boat repair facilities and boat slips. The structure will block views of the adjacent parking lot and West Marine facility. Wet slips fronting Parcel 53 will remain largely in view.

Exhibit 5.1-4 – Views from Chase Park depicts the current and proposed view of the project site from across the basin towards the project site as viewed from Chace Park, which is located to the northwest. The existing view shows the boatyard maintenance and repair facility and the wet slips located in front of the facility. Beyond the last row of wet slips and to the east are the County Department of Beaches & Harbors office trailers with the Sheriff's Boatwright/Lifeguard facility adjacent and to the south. The charter boat dock is located on the right side of the picture.

The proposed view with the dry stack boat storage structure shows the adjacent boatyard facility, the charter boat dock, and the northernmost office trailers for the County Department of Beaches & Harbors. Views of trees along Fiji Way are obstructed. From this perspective, the dry stack boat storage structure does not obscure any prominent view features but adds building height to the horizon view to the southeast.

Exhibit 5.1-5 – Views of Basin H from the northwesterly portion of Parcel 52 shows the view across the Basin towards Chace Park. The existing wet boat slips are part of the adjacent Parcel 53 development. Under existing conditions, there are no amenities for public viewing of the Basin. The project includes a view park at this location that will contain seating and landscaping to compensate for the lack of a waterfront promenade. The park will be accessed via a landscaped walkway that extends along Fiji Way and along the western side of the dry stack boat storage structure, terminating at the park.

Exhibit 5.1-6 – Marina del Rey Dry Stack Boat Storage Project Line of Sight depicts the line of sight view from another prominent feature of Marina del Rey, the North Jetty, to the proposed Boat Central dry stack boat storage structure. As can be seen from the exhibit, there is substantial development between the North Jetty and the project site, obstructing any clear view of the dry stack boat storage structure. There will be no view impact from the North Jetty.

Source: Jamie B. Myer Architects, Inc. Current View from Public Launch Ramp

Source: Jamie B. Myer Architects, Inc. Proposed View from Public Launch Ramp

Exhibit 5.1-3 – Views from Public Launch Ramp

Source: Jamie B. Myer Architects, Inc. Current View from Chace Park

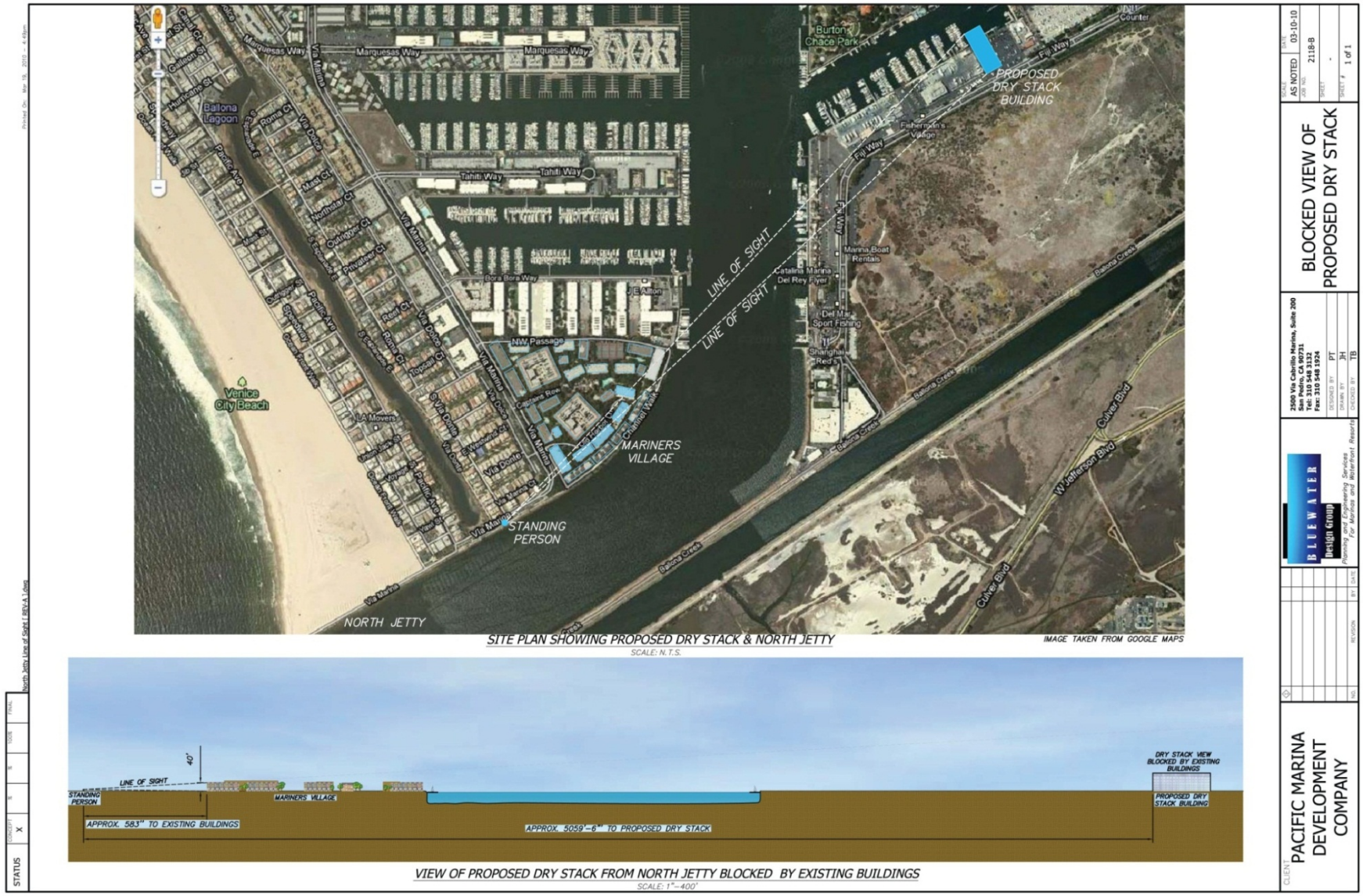
Source: Jamie B. Myer Architects, Inc. Proposed View from Chace Park

Exhibit 5.1-4 – Views from Chace Park

Source: Jamie B. Myer Architects, Inc. Current Park View

Source: Jamie B. Myer Architects, Inc. Proposed Park View

Exhibit 5.1-5 – Views of Basin H (Park View)



Source: BLUEWater Design Group

Exhibit 5.1-6 – Marina del Rey Dry Stack Boat Storage Project Line of Sight

2. Building Materials

The building material for the boat storage structure will likely be translucent white polycarbonate, cement board in plain and painted or stained tones, and stainless steel mesh. The polycarbonate material allows for absorption of light into the structure during the day. The structure will be composed of approximately 20% polycarbonate, 65% cement board, and 15% stainless mesh. This represents a change from how the building was characterized in the Initial Study when the polycarbonate material was more heavily featured. This combination of non-reflective, opaque materials meets the California Coastal Commission's standards for bird-safe building treatments. The office/customer lounge and the Sheriff's Boatwright/Lifeguard facility will be a combination of cement board panels and an insulated translucent plastic material. The proposed development on-site will decrease the view of the marina from Fiji Way compared to the existing setting. Under the proposed project, approximately 50% of the site will remain open and will provide view corridors to the water.

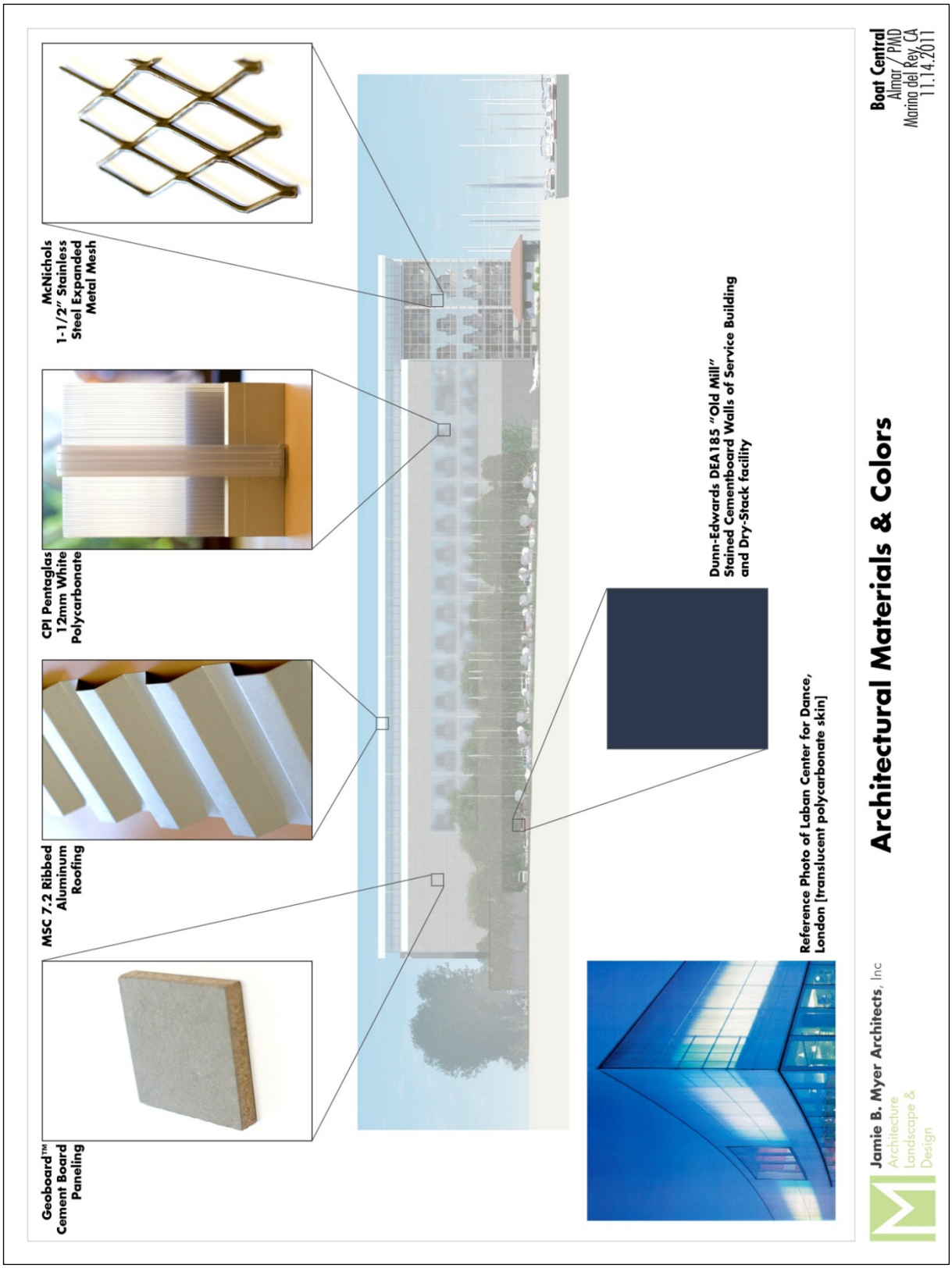
The boat storage structure will be primarily constructed of cement board and polycarbonate panels, or similar materials. The visual bulk of the structure is broken up because the mix of materials and colors effectively breaks down the structure's mass into planes. The main aisle of the structure will be a concrete slab floor with a gravel surface floor under the boat storage racks. Boats with any potential maintenance issues will be put in the maintenance bay which has a concrete floor.

Three materials are planned for the boat storage structure, which will aid in visually separating the planes. A mix of polycarbonate, cement board, and stainless steel mesh will comprise the sides of the structure. Some portions of the cement board will have a dark blue painted or stained color; however, the predominant colors of the structure are plain cement board and translucent white. The proposed materials and colors to be used for the dry stack boat storage structure are shown in Exhibit 5.1-7 – Architectural Materials and Colors.

The building materials for the visitor lounge and the Sheriff's Boatwright/Lifeguard facility are a mixture of cement board panels and a translucent plastic, insulated panel system. Building materials are shown on Exhibit 4.3-7 – Lounge and Boatwright Building Elevations – Sheet 1 (page 4-23 above).

3. Light and Glare

Light sources will come from the interior of the proposed dry stack boat storage structure, the Boatwright/Lifeguard facility, and the lounge/office on-site. Daytime lighting of the site will be limited to the Boatwright/Lifeguard facility, the visitor lounge, and the office. The boat storage structure will not be lighted during the day. The structure has been designed with a unique architectural cladding that absorbs light and allows it to penetrate through the structure, providing all necessary daytime lighting. Polycarbonate panels (or a similar material) were selected for the structure because they allow sunlight into the structure, which eliminates the need for lighting in the storage structure during the day.



Source: Jamie B. Myer Architects, Inc.

Exhibit 5.1-7 – Architectural Materials and Colors

Sources of nighttime lighting include the parking lot and the boat storage structure. Parking lot lighting will be minimized by using light design and standards that shield light and glare from surrounding land uses. In compliance with California Coastal Commission standards for bird-safe lighting, the lighting on-site will be at minimal legal levels to ensure safety throughout the parking lot. Cutoff fixtures will be used to direct light where it is needed.

Approximately 40 footcandles of down light will be used to illuminate the storage structure at night. Lighting will be adequate to provide safe working levels for the crane operation and the staff. This nighttime lighting will give the structure a soft glow. The dry stack boat storage structure has been designed with energy savings in mind and uses minimal electrical load. The boat storage structure has also been designed to minimize the escape of light from the structure. The polycarbonate (or similar) material of the structure has a high shading co-efficient, which helps block the escape of direct light. There will be limited hours of operation for the dry stack boat storage structure, and lights on the project site will be on for significantly less time compared to the shopping center near the project site, resulting in a minimal light impact on neighboring land uses. It is anticipated that lighting will be necessary shortly before daylight and for a few hours after sunset at times when demand is higher, such as during Daylight Saving Time. The lighting scheme complies with California Coastal Commission bird-safe standards that call for minimizing light spillage and maximizing light shielding. While no policy has been adopted by the California Coastal Commission, recent projects have been conditioned to include such bird-safe features on a case-by-case basis.

The parking lot will be lighted at minimum legal levels. Additionally, cutoff fixtures will be used in the parking lot and on the office/Sheriff's Boatwright/Lifeguard facility, which will direct light down and will confine light to the project site. Mitigation Measure AE-3 is included to minimize impacts by requiring all lighting to be shielded downward and confining the parking lot lighting to the project boundaries.

Glare is an effect produced by sunlight reflecting off surfaces such as windows, building surfaces, pavement, and automobiles. Glare from the proposed Boatwright/Lifeguard facility and the visitor lounge is not expected to be significant due to the nature of the building's materials. The building will have Pentaglas Quadwalls, which are an insulated version of translucent plastic. The materials used for the boat storage structure, the visitor lounge/office, and the Boatwright/Lifeguard facility will be made of non-reflective materials that absorb light, reducing the amount of glare.

4. Shade and Shadow

An analysis prepared by AC Martin Partners regarding the year round shade and shadow effects of the proposed project found that the dry stack boat storage structure will not have any appreciable effect on the dock structure or the public launch ramp. The shadow study identifies the shade and shadow effects of the proposed boat

storage structure at 9:00 a.m., 12:00 p.m., and 3:00 p.m. in March, June, and December. Figure 5.1-1 through Figure 5.1-9 provide graphic depictions of the shadowing effects as the day progresses.

March 21

Figure 5.1-1 - March 21, 9:00 a.m.

At 9:00 a.m. on March 21, the boat storage structure and the Boatwright/ Lifeguard facility cast a shadow to the northwest. The shadow from the boat storage structure covers some water within the project site and extends slightly into the area directly adjacent to the project on the west. The Boatwright/Lifeguard facility and the visitor lounge cast a shadow on the parking lot. During this time of year the greatest area of shadow extends off-site from the boat storage structure. However, given the nature of the adjacent land use – boatyard and adjacent boatyard – it is not anticipated that the proposed project will have a significant impact aesthetically in terms of shade and shadow.

Figure 5.1-2 - March 21, 12:00 p.m.

At 12:00 p.m. on March 21, the boat storage structure and the Boatwright/Lifeguard facility cast a shadow to the north. Some shading from the boat storage structure falls on the water and the boat launch ramps. Virtually all shadows fall within the project site, except for a sliver of shade from the Boatwright/Lifeguard facility and the visitor lounge, which cast a small amount of shade onto the driveway of the adjacent parcel to the east.

Figure 5.1-3 - March 21, 3:00 p.m.

At 3:00 p.m. on March 21, the boat storage structure and the Boatwright/Lifeguard facility cast a shadow to the northeast. The shadow from the boat storage structure falls over most of Parcel GG with shade falling over some of the project's dock structure. The Boatwright/ Lifeguard facility and the visitor lounge cast a small shadow over the driveway on the adjacent parcel to the east.

June 21

Figure 5.1-4 - June 21, 9:00 a.m.

At 9:00 a.m. on June 21, the boat storage structure and the Boatwright/Lifeguard facility cast a shadow to the northwest. The shadow from the boat storage structure covers some water within the project site and extends slightly out of the project boundaries to the west. The Boatwright/Lifeguard facility and the visitor lounge cast a small shadow, which is minimal and does not extend outside of the project boundaries.

Figure 5.1-5 - June 21, 12:00 p.m.

At 12:00 p.m. on June 21, the boat storage structure and the Boatwright/Lifeguard facility cast a shadow to the north. The shadow from the boat storage structure covers a small amount of water within the boundaries of the project site. The Boatwright/ Lifeguard facility and the visitor lounge cast a very small shadow that does not extend outside of the project boundaries.

Figure 5.1-6 - June 21, 3:00 p.m.

At 3:00 p.m. on June 21, the boat storage structure and the Boatwright/Lifeguard facility cast a shadow to the southeast. The shadow from the boat storage structure covers a small amount of water and a portion of the dock structure within the boundaries of the project site. The Boatwright/Lifeguard facility and the visitor lounge cast a small shadow over a driveway on to the adjacent parcel to the west.

December 21

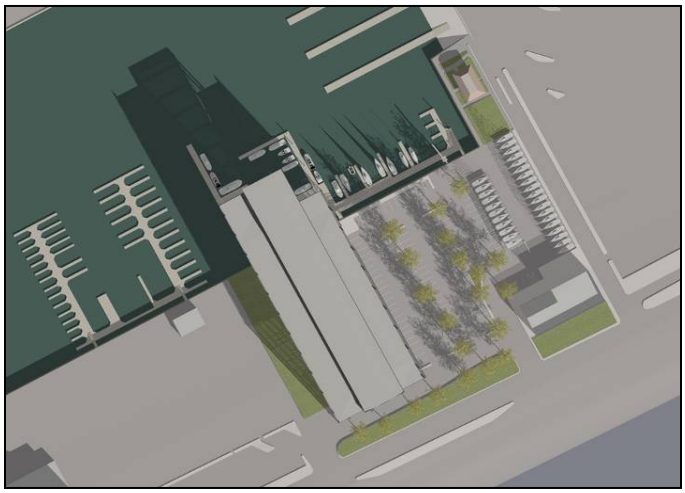


Figure 5.1-7 - December 21, 9:00 a.m.

At 9:00 a.m. on December 21, the boat storage structure and the Boatwright/Lifeguard facility cast a shadow to the northwest. The shadow from the boat storage structure falls over the marina and some of the project's dock structure. The Boatwright/Lifeguard facility and the visitor lounge cast a shadow on the parking lot.

Figure 5.1-8 - December 21, 12:00 p.m.

At 12:00 p.m. on December 21, the boat storage structure and the Boatwright/Lifeguard facility cast a shadow to the north. The shadow from the boat storage structure falls over the marina, a portion of the dock structure, and a portion of the project site. The Boatwright/Lifeguard facility and the visitor lounge cast a shadow on the parking lot, with a small portion of the shadow extending beyond the project boundaries.

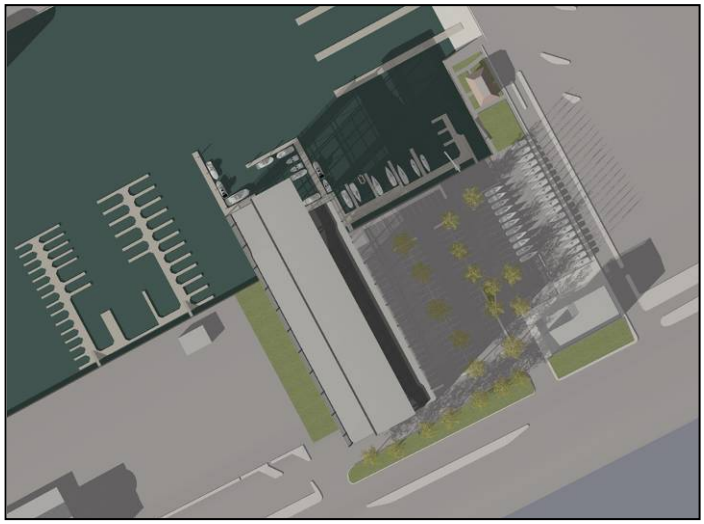


Figure 5.1-9 - December 21, 3:00 p.m.

At 3:00 p.m. on December 21, the boat storage structure and the Boatwright/ Lifeguard facility cast a shadow to the northeast. The shadow from the boat storage structure falls over almost all of Parcels 52 and GG. It must be noted that the boat storage structure has been designed to absorb some light, which means that when light is shining through the structure from the west, shadows produced over Parcels GG and 52 are not solid dark shadows. Instead, some light protrudes, breaking up the shading effect of the structure. Some shade extends along the public boat launch ramp nearest the project site. The Boatwright/Lifeguard facility and the visitor lounge cast a shadow on the parking lot, with some of the shadow extending beyond the project boundaries.

The shade and shadow effects of the proposed structure will be minimal during the summer solstice at noon in June due to the overhead sun, which produces a very small shadow. The largest shadow is produced during the winter solstice in December at 3:00 p.m. due to the angle of the sun casting a shadow in an easterly direction across the site. It is not anticipated that the proposed project will have a significant impact aesthetically in terms of shade and shadow due to the fact that this amount of shading occurs only once a year in the evenings and because a majority of the largest shadow falls within the land and water portions of the project site. In addition, no residential or other sensitive receptor uses will be impacted by the proposed project, as none exist within close proximity to the site.

5. Landscaping

Landscaping on the project site has been designed to follow the Marina Walk Draft Design Guidelines. An eight-foot-wide pathway that is intended for pedestrian use will be provided along Fiji Way. Queen palms and shade trees will be planted along the pathway to provide shade to pedestrians and bicyclists. Planting within view corridors between the bulkhead and Fiji Way will be pruned regularly so that a view will remain between the vehicles and the trees in the parking lot.

A preliminary landscape plan has been prepared, and is presented as Exhibit 5.1-8 – Preliminary Landscape Plan. Queen Palms will be planted along with project frontage at Fiji Way, at 40-foot intervals off-centered. Shade trees will be planted throughout the parking lot to reduce the "heat island effect" of surface parking lots. Within five years, the shade trees shall shade up to 25% of the parking lot. An existing line of vegetation east of Parcel GG will be retained. A final landscape plan shall be prepared and submitted to the County for review and approval, in accordance with Mitigation Measure AE-1. The landscape plan shall include drought-tolerant and native species to the maximum extent feasible; invasive plant species including but not limited to Mexican fan palms shall be prohibited.

The proposed project incorporates marina design features that would improve the visual experience and access opportunities in the area through the provision of new park and open space areas along the waterfront, consistent with Coastal Act policies §30251 and §30253(5). The proposed project includes a passive park/overlook directly adjacent to the marina on Parcel 52. The park can be accessed from the public pathway that runs north along the western edge of Parcel 52. Plants will be located between the pathway and the boat storage structure. Approximately 15,200 square feet of permeable surface is planned on-site, a net increase of 178% compared to existing site conditions.

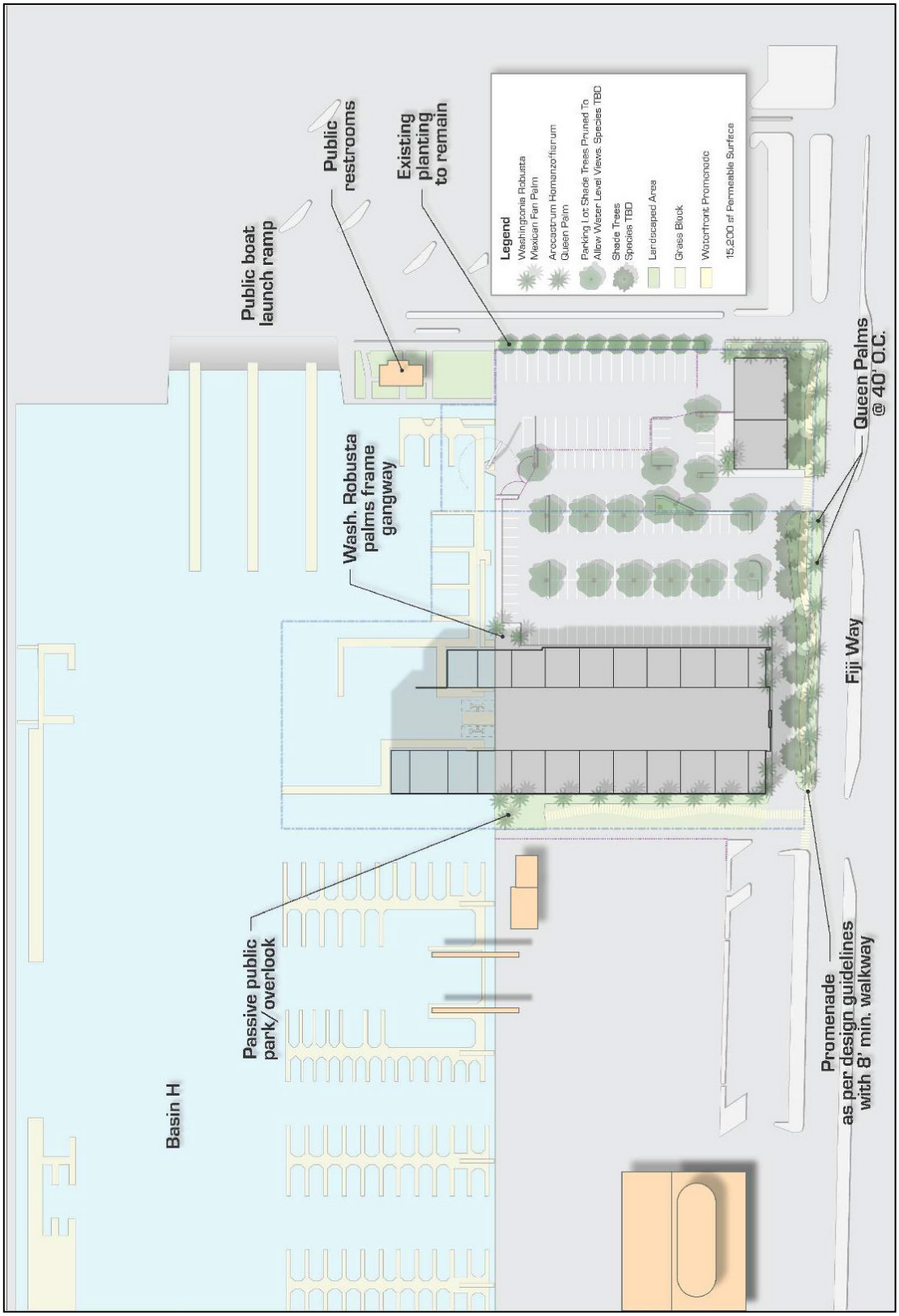
6. View Corridors

One of the policies of the Marina del Rey Land Use Plan is to maintain and enhance views of the marina. The LCP states that a prime consideration in the design of all new development is "the ability of the public to experience and view the marina waters."[12] The proposed project has been designed with the public in mind. To ensure that a public benefit is gained from the proposed 70- to 81.5-foot-tall boat storage structure, the proposed project has been designed to maximize the view corridor on-site in excess of LCP requirement of 20%.

Existing views from the project site waterfront are Burton Chace Park to the northwest across Basin H, the public boat launch ramp to the northeast, and the landside boat yard directly across the Basin. The project has been designed in such a way to enhance views through and around the site. Exhibit 5.1-9 – Sight Lines, depicts the unobstructed sight lines from the project site and adjacent public boat launch.

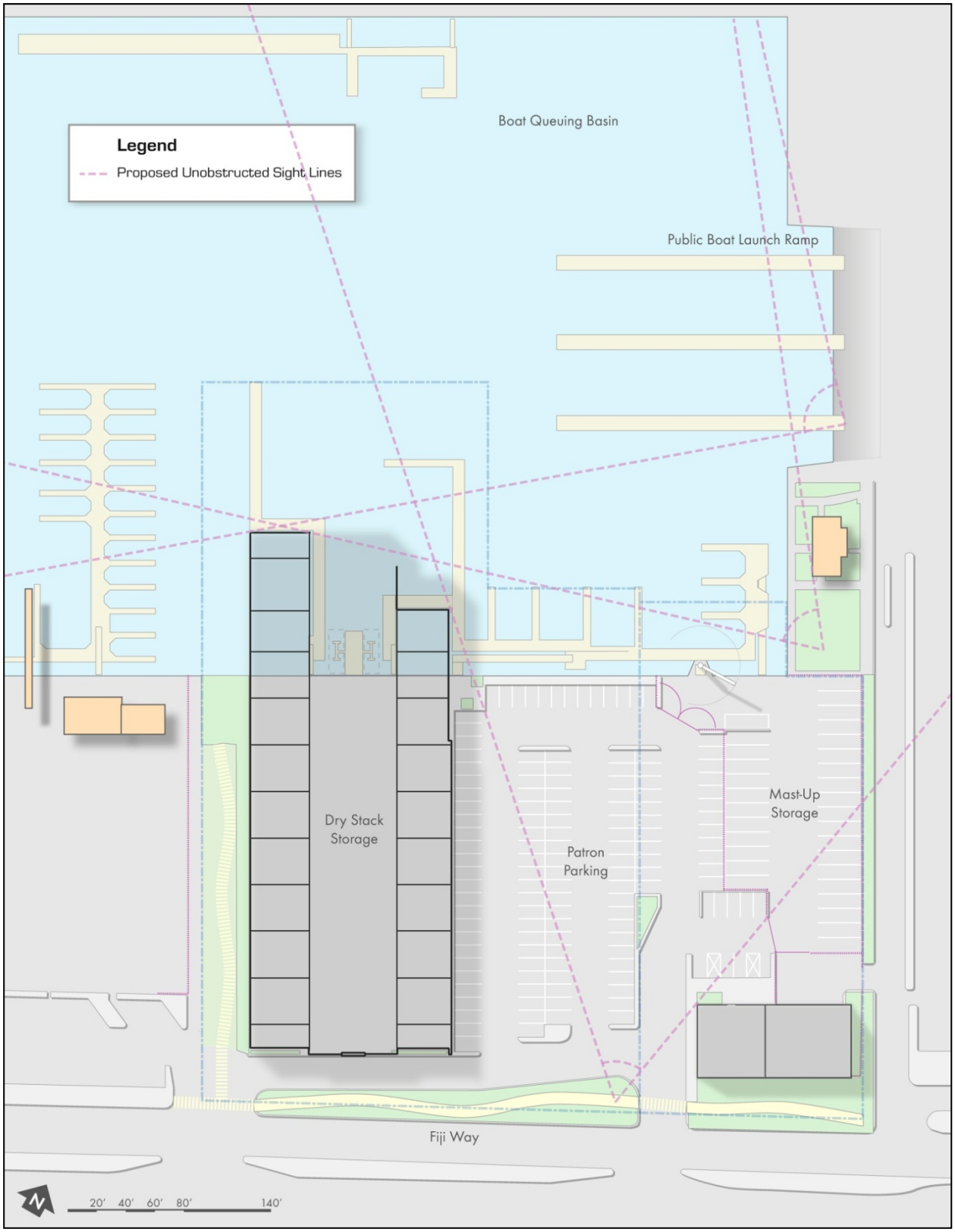
Despite the development on a currently vacant site, the view corridors provided exceed the requirement designated in the LCP.

[12] Marina del Rey LUP, §C.9.e, Policy 1. p 9-4



Source: AC Martin Partners, Inc.

Exhibit 5.1-8 – Preliminary Landscape Plan



Source: AC Martin Partners, Inc.

Exhibit 5.1-9 – Sight Lines

The proposed project is subject to the view corridor requirement of the Marina del Rey Land Use Plan, which provides that "all development, redevelopment, or intensification on waterfront parcels shall provide an unobstructed view corridor of no less than 20 percent of the parcel's water front providing public views of the marina boat basins and/or channels.[13] The proposed view corridor for the site is depicted in Exhibit 5.1-10 – View Corridor.

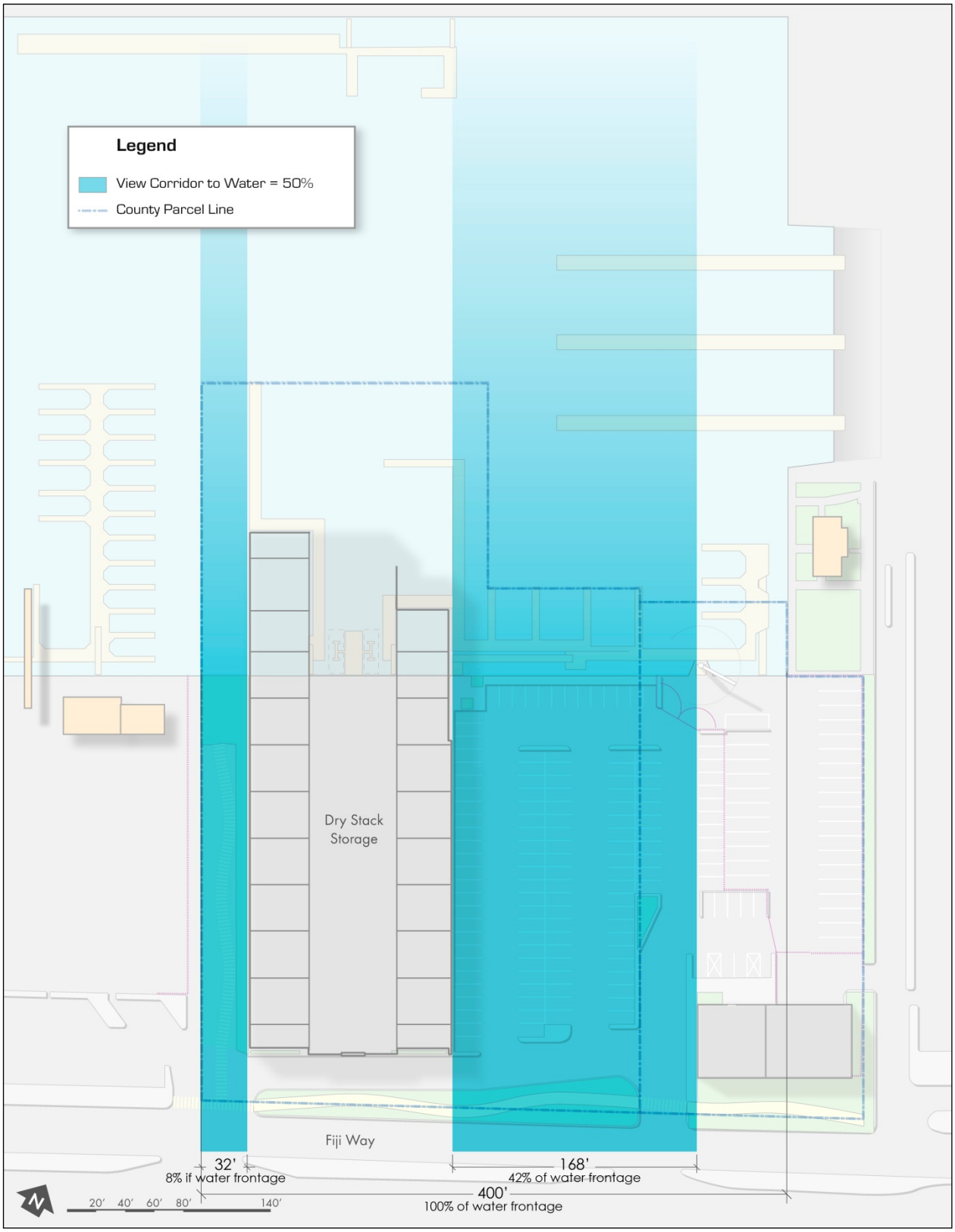
The view analysis provided by AC Martin Partners, Inc. illustrates the proposed unobstructed site lines and the areas of the site where there is an unobstructed view of the water. As the view analysis shows, the site provides a 50% view corridor to the water. This corridor has two components. A 32-foot-wide pathway along the western edge of Parcel 52 is proposed, which is comprised of a paved promenade with landscaping on either side, adjacent to the boat storage structure. At the end of the path are a passive public park and an overlook area. The second component of the corridor is the 168-foot-wide area near the middle of the site, just west of the Boatwright/Lifeguard/visitor lounge facility. This larger area of the corridor affords the public a view of the marina and the areas north/northwest of the project site.

The width of the project site is 452 feet; however, the water frontage on-site is 400 feet. There will be 200 linear feet of view corridor, which results in a view corridor of 50%. The project's view corridors are consistent with, and exceed, the requirements of the LCP, maintaining significant harbor views along the frontage of the site. The site currently has a view corridor of approximately 300 feet, which is the width of the entire parking lot. This is approximately 75% of the total site width.

7. Scenic Drives

The Marina del Rey Local Coastal Program (LCP) characterizes Fiji Way as a scenic drive. Thus, the project site is visible from a scenic drive and could potentially impact scenic views from Fiji Way to the water. The existing setting allows for uninterrupted views of the marina through the temporary public parking lot on Parcel 52 across Basin H, and offers views obstructed by the County offices on Parcel GG. Views across Parcel 52 will be reduced by the proposed project. As discussed above, the project will provide a view corridor in excess of the LUP requirement; approximately 50% of the site will allow views to Basin H.

[13] Marina del Rey LUP, § A.1.e, Policy 14. p 1-9



Source: AC Martin Partners, Inc.

Exhibit 5.1-10 – View Corridor

8. Views of the Harbor and Public Viewing Areas

A priority goal of the Land Use Plan for Marina del Rey is the maintenance and enhancement of views of the marina. The Plan states that enhancing the ability of the public to experience and view the marina waters shall be a prime consideration in the design of all new, modified, or expanded development. "This goal shall be achieved by placing conditions on permits for new development to enhance public viewing, to allow for greater public access, and to create new view corridors of the waterfront."[14] The Marina del Rey Land Use Plan states that: "All development, redevelopment or intensification on waterfront parcels shall provide an unobstructed view corridor of no less than 20 percent of the parcel's water front…."[15] The proposed project will provide an approximate 50% view corridor. The LUP Coastal Visual Resources Policy 8 permits building heights up to 75' with provision of a 40% view corridor.

The boat storage use is consistent with adjacent uses, which include a public boat launch, dry storage, and boat repair and maintenance facilities. However, the project would add a height and mass component that does not currently exist at the site. The South Bay Bike Trail, one of the County's busiest bike paths, runs adjacent to the site along Fiji Way. The project will be visible to those pedestrians and bicyclists traveling along the bike path.

The proposed project enhances the ability of the public to experience the marina waters by creating an area designed for public viewing of the marina and by enhancing the public access to the marina. All developments within the marina are required to provide pedestrian access to the shoreline (except where public safety is the overriding consideration). The project addresses LCP policies, which relate to the enhancement of public access to the water, described as follows:

Policy 1:

> "Maximum public access to and along the shoreline….shall be a priority goal of this Plan, balanced with the need for public safety, …"[16]

The geo-grid walkway leading to the park is designed to separate the public use of the park and the potential hazards associated with heavy machinery that is a part of the dry stack boat storage structure. Approximately eight feet of vegetation, including a row of palm trees, will be placed alongside the dry stack boat storage structure, which will help direct the public to the waterfront area and will provide a safety buffer between the structure and the promenade.

Policy 2:

> "All development shall be required to provide public shoreline access…."[17]

[14] Marina del Rey LUP, §C.9.e, Policy 1. p 9-4
[15] Marina del Rey LUP, §9.e, Policy 6. p 9-5
[16] Marina del Rey LUP, §A.1.e, Policy 1. p 1-7

The proposed project maximizes the public's access to the shoreline by providing a waterfront park that can be accessed from Fiji Way. Signage will be placed to notify the public of the park's existence and their ability to utilize the public park.

Policy 3:

> "All development in the existing Marina shall be designed to improve access to and along the shoreline."[18]

The proposed passive park and overlook area will be open during normal business hours and will provide an opportunity for the public to access the waterfront. The park includes a picnic area with benches, which provides the public with an area they can use to enjoy the marina, which does not currently exist. The public pathway provides a view corridor. The proposed project conforms to the policies of the LCP and promotes public access to the shoreline.

5.1.4 Mitigation Measures

AE-1 Prior to issuance of building permits, a Final Landscape Plan for the project shall be approved by the County of Los Angeles Department of Regional Planning. The Final Landscape Plan shall include drought-tolerant species to the maximum extent feasible, and shall prohibit invasive species such as Mexican fan palms.

AE-2 After completion of the project and landscaping installation, the project applicant shall ensure that the landscaping/planting within the view corridors between the bulkhead and Fiji Way will be pruned on a regular basis for the life of the project to ensure that a view will remain between the vehicles and the trees in the parking lot.

AE-3 Prior to the issuance of a Certificate of Occupancy, the project applicant shall ensure that all exterior lighting in the parking lot shall be designed and located so that all direct rays are confined to the property. Lighting shall be designed to minimize visibility of light sources by directing lighting on-site and not illuminating areas outside property boundaries.

5.1.5 Level of Significance after Mitigation

1. Height and Massing

The proposed dry stack boat storage structure will be higher and larger in mass than existing structures in the project area. The dry stack storage structure has been designed to minimize the visual impact of the amount of site coverage from the water and from Fiji Way by providing view corridors on both sides of the structure, totaling 50%. The boat storage structure will be approximately 70 feet in height, with the

[17] Marina del Rey LUP §A.1.e, Policy 2. p 1-7
[18] Marina del Rey LUP, §A.1.e, Policy 3, p 1-7

crane and protective covering up to 81.5 feet. The boat storage structure is articulated, the roof line is broken up by the crane and protective covering, the front of the building is broken up, with the west side extending out further over the water than the east side. The use of building materials and colors also helps to break up the visual mass of the structure. In spite of the design, the project will still introduce height and massing that will significantly change the appearance of the site, and the structure will create an unavoidable, adverse aesthetics impact relative to height and massing.

2. Building Materials

The design of the building, as proposed, will include materials and colors that are compatible with the aesthetics standards already established in the marina. In addition, architectural features will provide additional visual relief from the placement of a structure where none previously existed, resulting in a less than significant impact from a material, style, and color perspective.

3. Light and Glare

The introduction of light to an area where only parking lot lighting occurs has been mitigated by the use of energy-efficient interior night lighting and structural materials that allow sunlight to be the main daytime light source. Because the project is in an already developed area that includes restaurant and retail uses, the project will not introduce lighting to an otherwise unlit setting. The dry stack boat storage structure will operate during regular hours comparable to other commercial uses in the marina. Parking lot lighting will consist of shielded lights that will direct the light to areas within the property boundaries. The use of non-reflective materials and colors that are complimentary to the surrounding structures will reduce effects from light and glare. In addition, mitigation has been included to ensure that impacts from exterior lighting will be less than significant.

4. Shade and Shadow

As depicted in the shade and shadow analysis, the greatest impact will occur during the winter solstice in the late afternoon. The effects from the position of the sun during the winter months result in shade and shadow falling across the parking lot, a portion of the water and the office/boatwright facilities. As no sensitive receptors or residential areas are within close enough proximity for the shadow effect to reach such areas, the impacts from shade and shadow are less than significant.

5. Landscaping

Mitigation has been included requiring submittal of a landscaping plan prior to issuance of building permits to ensure that an aesthetic benefit will result from the inclusion of appropriate plants and trees. Mitigation also requires the proper maintenance of landscaping to ensure that view corridors remain unobstructed.

Landscaping will enhance the areas open to public use and provide a natural buffer to views of the site from the water and Fiji Way. Impacts will be less than significant through incorporation of mitigation measures.

6. View Corridors

The project will provide a 50% view corridor, which is in excess of that required by the LCP. Public access to the waterside portion of the site will be enhanced by the passive park at the terminus of the public walkway. Impacts due to obstruction of views will be less than significant due to the amount of open waterfront that is being preserved for public viewing.

7. Scenic Drives

Views from Fiji Way for pedestrians, bicyclists, and motorists will be protected through implementation of 50% view corridor. Impacts will be less than significant.

8. Views of the Harbor and Public Viewing Area

The existing site does not provide an enhanced viewing area for the public to view the marina in the form of a marina-front pedestrian walkway. A marina-front pedestrian promenade is not feasible because of the Sheriff's Boatwright/Lifeguard facility and dock on the east, and the boat storage structure and crane operation on the west. The proposed project will maintain a marina viewing area at the waterside of the new parking lot, but will also provide a public promenade on the west side of the dry stack boat storage structure that leads to a passive park on the waterfront. As the park will contain benches and tables, the public access experience will be greatly improved over what currently exists. No impacts will occur due to the project related to public access.

5.1.6 Cumulative Impacts

Implementation of the proposed project will contribute to significant cumulative aesthetics impacts. The proposed boat storage project is consistent with adjacent uses that include a public boat launch, dry storage, and a boat repair and maintenance facility. The project will provide more than the 20% view corridor required in the Marina del Rey LCP. With the proposed project, approximately 50% of the site will remain open and will provide view corridors to the water. However, the dry stack boat storage structure will add a new height and mass component to Fiji Way, although the marina contains other buildings that are much higher, such as the Marina City Club complex located along Admiralty Way and the Archstone apartments.

The existing zoning and land use categories for the site allow building heights up to 45 feet. Heights may be increased if an expanded view corridor is provided. The County had considered that the site would be built as allowed under the LCP, converting the existing temporary parking area to Department of Beaches & Harbors office buildings

and permanent parking to accommodate the office uses. From an aesthetics standpoint, the proposed project is consistent with the height allowances, including the expanded view corridor. Since development of the site was previously planned for construction of the Beaches & Harbors Department offices, the view corridor would be impacted by any development, as contemplated in the LCP. However, the project will provide a view corridor in excess of the LCP requirement, and there will be no cumulative impact in that regard. Development of some type would likely continue to occur on the site consistent with the permitted uses and impacts to existing views would be more severe.

Light levels at night in the boat storage structure will be adequate to provide safe working levels for the crane operation and staff. The parking lot will be lighted at minimum legal levels with cutoff fixtures that direct light down. Potential cumulative aesthetics impacts from proposed projects in the vicinity will be mitigated on a project-by-project basis through compliance with the Marina del Rey LCP. Thus, the proposed project is not anticipated to have a significant cumulative impact on view corridors or lighting but will have a more significant impact due to building height and massing.

5.2 Air Quality and Global Climate Change

This section analyzes potential air quality impacts associated with the project in terms of short-term (construction) impacts and long-term (operational) impacts. Information in this section is based on an Air Quality Assessment (Assessment) prepared by KPC Environmental, Inc. (KPC) dated June 2010. A separate report was previously submitted by KPC on July 21, 2009 and included Regional Air Quality Summary tables for Year 2007. The complete reports are included herein as Appendix D.

5.2.1 Existing Setting

1. Climate

The project site is located in the South Coast Air Basin (SCAB). The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean and high mountains. The climate in the SCAB is determined by its terrain and geographical location and is dominated by the strength and position of the semi-permanent high pressure center over the Pacific Ocean near Hawaii. The climate, including the Marina del Rey area, is described as a Mediterranean-type climate characterized by long warm summers and moderate winters with moderate precipitation and a maritime influence resulting in a marine layer and a temperature inversion layer.

a. Temperature

The average temperature varies little throughout the SCAB, averaging 62°F. High temperatures in the project area average 75°F during the summer and 65.5°F during the winter. Low temperatures average 62.2°F during summer nights and 48.6°F during winter nights. For site specific analysis, KPC selected temperatures that represent the lowest average when assessing CO and NO_X impacts and the highest average when assessing ROG.

b. Winds

Winds in the vicinity display several characteristics. Summer daytime winds are generally from the south in the morning and the west in the afternoon. The warm air during spring and early summer lifts most of the pollution produced on an average day and moves it through the mountain passes. Late summer and winter months see a less pronounced flushing effect due to the lower wind speeds and early off-shore winds. Pollutants are trapped in the valleys of the region due to this stagnation.

In the Marina del Rey area, nighttime winds, especially during the winter when the land becomes cooler than the ocean, are generally offshore at about 3 to 5 miles per hour. When high pressure occurs over the region, a hot, dry and gusty “Santa Ana” winds condition occurs from the north and northeast across the basin. The average

wind speed in the project area is between 5 and 12 miles per hour from the west-southwest. Under normal conditions, the light, average wind speeds limit the capability to disperse air contaminates horizontally. The net effect is that any locally generated air pollutants will be carried offshore at night and inland by day.

c. Rainfall

The annual rainfall in the project vicinity generally occurs during the November to April period. Annual average rainfall in the Marina del Rey area is 12.09 inches.

d. Humidity

On most days, the presence of a shallow marine layer keeps the air near the surface somewhat moist. The ocean effect is dominant except for the occasional periods when dry, continental air is brought into the SCAB by offshore winds. Annual average relative humidity in the SCAB ranges from 70% along the coast to 57% inland.

e. Temperature Inversions

Temperature inversions may be ground-based or elevated. Ground-based inversions are most severe during clear, cold early winter mornings when very little air mixing or turbulence occurs, generally breaking down by mid-morning. The height of the base of the inversion is known as the "mixing height." This height changes depending on atmospheric conditions; however, the top of the inversion remains constant. This lack of mixing results in high concentrations of primary pollutants accumulating near major roadways where relatively higher emissions occur. Elevated inversion layers, conversely, result from a variety of meteorological phenomena. Elevated inversion layers restrict vertical mixing of air, forming a restrictive upper boundary. Dispersion of air pollutants is unrestricted below an elevated inversion layer.

Pollutants generated by stationary and mobile sources mix with less contaminated air beneath the inversion layer and will become more concentrated unless the inversion breaks down. When strong inversions are formed on cool winter nights, carbon monoxide (CO) generated by automobile exhaust becomes concentrated. Generally, the highest levels of CO are produced during the months of November through February. Ozone typically occurs in high concentrations in late spring, summer, and early fall when light winds, low mixing height, and increased sunlight combine, resulting in ozone production. Smog effects are less significant when there is no inversion layer or when winds average 15 miles per hour or greater.

2. Air Quality Management and Regulatory Setting

a. Air Quality Management

The South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB) are the principal agencies charged with managing air quality within the SCAB. The SCAQMD establishes and enforces regulations for stationary

(non-mobile) sources of air pollution within the SCAB. The CARB is responsible for controlling motor vehicle emissions, establishing legal emission rates for new vehicles and for the vehicle inspection program.

b. Air Quality Management Plan

The federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. In 1988, the California legislature enacted the California Clean Air Act (CCAA), which requires that regional emissions be reduced by 5% per year until attainment can be demonstrated. In July 1991, the South Coast Air Quality Management District (SCAQMD) adopted a revised Air Quality Management Plan (AQMP) designed to meet the CCAA requirements. The 1991 AQMP deferred the attainment date to 2010, consistent with the 1990 Clean Air Act.

The 1990 Clean Air Act Amendment required that all states designated with serious or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The currently adopted clean air plan for the basin is the 1999 SIP Amendment, which accelerates the schedule for a number of new SCAQMD rules and regulations. The Amendment was approved by the U.S. Environmental Protection Agency (EPA) in 2000.

Table 5.2-1 Regional Criteria Pollutant Attainment Status – SCAB

Pollutant	California	Federal
Ozone	Extreme non-attainment	Non-attainment
PM_{10}	Serious non-attainment	Non-attainment
$PM_{2.5}$	Non-attainment	Non-attainment
SO_X	Attainment	Attainment
CO	Attainment	Attainment
NO_X	Attainment	Attainment
Lead	Attainment	Attainment
Other (e.g., vinyl chloride, hydrogen sulfide)	Unclassified or Attainment	Unclassified or Attainment

The SCAQMD adopted an updated clean air "blueprint" in June 2007. The 2007 AQMP provides an outline for achieving reductions in emissions while increasing air quality within the SCAB. Table 5.2-1 shows the status of criteria pollutant attainment for the SCAB.

- **Ozone:** The EPA has replaced the one-hour ozone standard with an eight-hour standard set at 0.08 parts per million (ppm). The calculation disregards the three highest measurements and averages the fourth highest measurement over a three-year period to determine if the standard is met.
- **PM_{10} (course particulate matter):** On September 21, 2006, the federal standard of 50 μg/m^3 was replaced with a new 24-hour standard of 150 μg/m^3 for PM_{10}.
- **$PM_{2.5}$ (fine particulate matter):** In September 2006, the federal standard of 65 μg/m^3 was reduced to 35 μg/m^2 for $PM_{2.5}$ for the new 24-hour standard.
- **Nitrogen Dioxide (NO_X):** In February 2007, California reduced the 1-hour standard from 0.25 ppm to .18 ppm for NO_X.

c. Ambient Air Quality Standards (AAQS)

To gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare of those people most susceptible to further respiratory distress. This group, called "sensitive receptors," includes asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. National Ambient Air Quality Standards (AAQS) were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or include different exposure periods. The federal Clean Air Act Amendments of 1990 required that the EPA review all national AAQS in light of known health effects. EPA was charged with modifying existing standards or promulgating new standards where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter ($PM_{2.5}$). New national AAQS were adopted on July 17, 1997. Table 5.2-2 depicts the federal and state emissions standards with relevant health concerns.

Table 5.2-2 Ambient Air Quality Standards

Air Pollutant	California Standard (Concentration/ Averaging Time)	Federal Primary Standard (Concentration/ Averaging Time)	Most Relevant Effects
Ozone (O_3)	0.09 ppm / 1-hr. avg.>	0.08 ppm / 8-hr avg.> 0.12 ppm / 1-hr avg.>	a) Short-term exposures: 1) pulmonary function decrements and breathing difficulty; 2) risk to public health implied by alterations in pulmonary morphology and host defense in animals b) Long-term exposures: 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 c) Vegetation damage d) Property damage
Carbon Monoxide (CO)	9.0 ppm / 8-hr avg.> 20 ppm / 1-hr avg.>	9.0 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 d) Possible increased risk to fetuses
Nitrogen Dioxide (NO^2)	0.25 ppm / 1-hr avg.>	0.053 ppm / ann. avg.>	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 c) Contribution to atmospheric discoloration

Table 5.2-2 Ambient Air Quality Standards

Air Pollutant	California Standard (Concentration/ Averaging Time)	Federal Primary Standard (Concentration/ Averaging Time)	Most Relevant Effects
Sulfur Dioxide (SO_2)	0.04 ppm / 24-hr avg.> 0.25 ppm / 1-hr avg.>	0.03 ppm / ann. avg.> 0.14 ppm / 24-hr avg.>	a) Broncho constriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM_{10})	20 µg/m^3 / ann. geometric mean.> 50 µg/m^3 / 24-hr avg.>	50 µg/m^3 / ann. arithmetic mean.> 150 µg/m^3 / 24-hr avg.>	a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease b) Declines in pulmonary function, especially in children c) Increased risk of premature death from heart or lung diseases in elderly
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / ann. arithmetic mean.>	15 µg/m^3 / ann. arithmetic mean.> 65 µg/m^3 / 24-hr avg.>	
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 f) Property damage
Lead	1.5 µg/m^3 / 30-day avg.>	1.5 µg/m^3 / calendar quarter>	a) Learning disabilities in children b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount such that the extinction coefficient is greater than 0.23 inverse kilometers (to reduce the visual range to less than 10 miles) at relative humidity less than 70%, 8-hr avg (10am-6pm)	none	Visibility impairment on days when relative humidity is less than 70%
Hydrogen Sulfide (H_2S)	0.03 ppm / 1-hr avg.>	none	Odor (rotten egg smell); Headache

Source: South Coast Air Quality Management District

d. Greenhouse Gas (GHG)

State of California Assembly Bill 32 (AB 32), known as the Global Warming Solutions Act, was passed in August 2006. AB 32 requires that levels of greenhouse gases (GHG) be reduced to 1990 levels by the year 2020. There are currently no federal regulations on the reduction of GHG to reduce the effects on global climate change.

Senate Bill 97 (SB 97) requires that the Governor's Office of Planning and Research develop guidelines for CEQA compliance related to GHG emissions, including mitigation measures for the reduction of GHG.

There are currently no adopted guidelines for GHG thresholds. The Amendments to the CEQA Guidelines Addressing Greenhouse Gas Emissions mandated by Senate Bill 97 took effect on March 18, 2010. The Amendments require the quantification and mitigation of greenhouse gas emissions. The Guidelines (§15064.4) encourage lead agencies, where possible, to quantify GHG emissions and recommend that lead agencies consider several other qualitative factors in determining significance, including:

(1) the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting,

(2) whether the project emissions exceed a threshold of significance that the lead agency determines is applicable to the project; and

(3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction or mitigation of GHG emissions.

e. Regional Air Quality Summary 2007

The SCAQMD and the California Air Resources Board (CARB) reported that in 2007 there were a total of 35 days on which the federal standards for 1-hour ozone and 86 days on which the 8-hour ozone standard in the SCAB were exceeded. The exceedances varied widely by area with the majority occurring in Riverside and San Bernardino Counties. Exceedances were fewer at the coast, increasing to a maximum in the Central San Bernardino Mountains and inland valleys, and decreasing farther downwind in the Basin's far inland areas. The federal ozone standard was exceeded most frequently in the Central San Bernardino Mountains area for a total of 13 days for the federal 1-hour standards and 59 days for the federal 8-hour standards. The state standard, which is more stringent, was exceeded on 76 days for the 1-hour state standard in the Perris area and 96 days for the state 8-hour standard in the San Bernardino Mountains area. The highest ozone concentrations recorded in 2007 (0.17 ppm and 0.137 ppm) were approximately 141% and 171% of the federal 1-hour and 8-hour standards, respectively.

Carbon monoxide concentrations did not exceed the federal or state standards in the SCAB in 2007. The highest concentrations were in Orange County and central Los Angeles County. The maximum 8-hour average concentration of 6.4 ppm, which was recorded in South Central Los Angeles County, is below the federal standard by 3.1 ppm and below the state standard by 2.6 ppm.

The following tables include recent monitoring data for the area closest to the project site. Table 5.2-3 includes the data from Receptor Area 2, which is located in Northwest Coastal Los Angeles County. Table 5.2-4 includes data from Receptor Area 3 due to the fact that PM_{10} and SO_2 data was not obtained at Receptor Area 2.

Table 5.2-3 Regional Air Quality Summary – Source Receptor Area 2, Years 2004-2007

Pollutant	California Standard	Federal Standard	Year	Maximum Measured Concentration	Number of Days Samples Exceed State/Federal Standards
Carbon Monoxide	20 ppm - 1-hr	35 ppm - 1-hr	2004	4.0	0/0
			2005	3.0	0/0
			2006	3.0	0/0
			2007	3.0	0/0
Ozone	0.09 ppm - 1-hr	0.12 ppm - 1-hr	2004	0.107	5/0
			2005	0.114	7/0
			2006	0.10	3/0
			2007	0.117	2/0
Nitrogen Dioxide (NO_2)	0.25 ppm - 1-hr	0.0534 ppm – AAM [a]	2004	0.09	0/0
			2005	0.08	0/0
			2006	0.08	0/0
			2007	0.08	0/0
Sulfur Dioxide (SO_2)	0.25 ppm - 1-hr 0.04 ppm - 24-hour avg. [b]	0.03 ppm - AAM 0.14 ppm - 24-hr avg. 0.50 ppm - 3-hr avg. [b]	2004	not monitored	0/0
			2005	not monitored	0/0
			2006	not monitored	0/0
			2007	not monitored	0/0
Fine Particulate Matter (PM_{10})	50 µg/m^3 - 24-hr	150 µg/m^3 - 24-hr	2004	not monitored	0/0
			2005	not monitored	0/0
			2006	not monitored	0/0
			2007	not monitored	0/0
Fine Particulate Matter ($PM_{2.5}$)	35 µg/m^3 - 24-hr	65 µg/m^3 [c] 35 µg/m^3 - 24-hr	2004	not monitored	0/0
			2005	not monitored	0/0
			2006	not monitored	0/0
			2007	not monitored	0/0

ppm - parts per million AAM - annual arithmetic mean

a The federal standard is annual arithmetic mean NO_2 greater than 0.0534 ppm.

b The state standards are 1-hour average SO_2 > 0.03 ppm, 24-hour average > 0.04 ppm, and 3-hour average > 0.05 ppm.
The federal standards are annual arithmetic mean SO_2 > 0.03 ppm, 24-hour average > 0.14 ppm, and 3-hour average > 0.50 ppm.

c Revised federal standard for $PM_{2.5}$ from 65 down to 35 µg/m^3 effective December 17, 2006.

Based on the most recent data (2007) from air quality monitoring station SRA #2, there were no days on which federal 1-hour ozone standards were exceeded. The state 1-hour standard was exceeded a total of 3 days. CO concentrations in the region did not exceed federal or state standards.

Table 5.2-4 Regional Air Quality Summary – Source Receptor Area 3, Years 2004-2007

Pollutant	California Standard	Federal Standard	Year	Maximum Measured Concentration	Number of Days Samples Exceed State/Federal Standards
Carbon Monoxide	20 ppm - 1-hr	35 ppm - 1-hr	2004	6.0 [c]	0/0
			2005	3.0	0/0
			2006	3.0	0/0
			2007	3.0	0/0
Ozone	0.09 ppm - 1-hr	0.12 ppm - 1-hr	2004	0.069 [c]	0/0
			2005	0.086	0/0
			2006	0.08	0/0
			2007	0.074	0/0
Nitrogen Dioxide (NO_2)	0.25 ppm - 1-hr	0.0534 ppm – AAM [a]	2004	0.08 [c]	0/0
			2005	0.09	0/0
			2006	0.10	0/0
			2007	0.08	0/0
Sulfur Dioxide (SO_2)	0.25 ppm - 1-hr 0.04 ppm - 24-hour avg. [b]	0.03 ppm - AAM 0.14 ppm - 24-hr avg. 0.50 ppm - 3-hr avg. [b]	2004	0.03 [c]	0/0
			2005	0.04	0/0
			2006	0.02	0/0
			2007	0.02	0/0
Fine Particulate Matter (PM_{10})	50 µg/m^3 - 24-hr	150 µg/m^3 - 24-hr	2004	52 [c]	2/0
			2005	44	0/0
			2006	45	0/0
			2007	96	2/0
Fine Particulate Matter ($PM_{2.5}$)	35 µg/m^3 - 24-hr	65 µg/m^3 [d] 35 µg/m^3 - 24-hr	2004	not monitored	0/0
			2005	not monitored	0/0
			2006	not monitored	0/0
			2007	not monitored	0/0

ppm - parts per million AAM - annual arithmetic mean
a The federal standard is annual arithmetic mean NO_2 greater than 0.0534 ppm.
b The state standards are 1-hour average SO_2 > 0.03 ppm, 24-hour average > 0.04 ppm, and 3-hour average > 0.05 ppm.
The federal standards are annual arithmetic mean SO_2 > 0.03 ppm, 24-hour average > 0.14 ppm, and 3-hour average > 0.50 ppm.
c Less than 12-months of data available.
d Revised federal standard for $PM_{2.5}$ from 65 down to 35 µg/m^3 effective December 17, 2006.

Based on the most recent data (2007) from air quality monitoring station SRA #3, there were no days on which either federal or state SO_2 or PM_{10} standards were exceeded.

5.2.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles has not adopted thresholds of significance for air quality. According to Appendix G of CEQA Guidelines, the proposed project would have a potentially significant impact with respect to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation;

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

In accordance with the CEQA Guidelines Amendments which were adopted on March 18, 2010, the CEQA Guidelines Initial Study Checklist now includes the following impact determination criteria:

Would the project:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

SCAQMD has established significance thresholds based on Section 182(e) of the federal Clean Air Act that identify levels of volatile organic gases from stationary sources operating in extreme non-attainment regions for ozone at 10 tons per year. These established values were converted into threshold levels of pounds per day for the construction and operational phases of a project. SCAQMD states that any project located in the SCAB having daily emissions from direct and indirect sources that exceed the emissions thresholds should be considered significant.

Table 5.2-5 Mass Daily Thresholds

Pollutant	Construction	Operation
NO_X	100 lbs/day	55 lbs/day
ROG/VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day

Table 5.2-5 depicts threshold levels for construction and operational emissions.

In addition to the significance threshold for NO_X, ROG/VOC, PM_{10}, SO_X and CO, the California 1-hour and 8-hour CO standard will be used for determining the existence of CO hotspots created directly or indirectly by a project. High levels of CO are associated with traffic congestion, particularly with slow moving and idling vehicles. Depending on the existing background concentrations of CO, roadways have the potential to be CO hot spots. A hotspot analysis is provided in the Project Impacts discussion below. CO_2 has not been included in the threshold table since no state guidelines or thresholds have been adopted. Additional discussion regarding GHG is presented later in this section.

5.2.3 Project Impacts Prior to Mitigation

Local air quality impacts/emissions are usually divided into short-term and long-term impacts. Short-term impacts are normally the result of demolition, construction, or

grading operations. Long-term impacts are associated with the built-out condition of the proposed project. Limited mitigation was included in the modeling and PM_{10} (fugitive dust) from grading was calculated at the worst-case level of 38.2 lbs/day rather than the average of 10 lbs/day.

1. Construction Emissions

Construction emissions are difficult to quantify, since the exact type and amount of equipment that will be used or the acreage that may be disturbed on any given day is not known with any reasonable certainty. The emphasis in environmental documents relative to construction activity emission impacts has, therefore, been to minimize the emissions as fully as possible through comprehensive mitigation, even if the exact amount of emissions cannot be precisely quantified.

Impacts were analyzed based on a construction schedule of 30 days for demolition and 308 days for all construction-related activities, including mass grading, removal of existing asphalt, fine grading, construction, paving, and architectural coating for a total project schedule of 12 months. The emissions calculations assume that most equipment is operating for 5 days per week, 8 hours per day, which represents a worst case analysis because most equipment will be turned on and off sporadically throughout the day, as necessary. In addition, no mitigation measures were included in the Urban Emissions Model (URBEMIS) analysis of area and operations emissions in order to present the worst case scenario. Mitigation measures will be discussed following the impacts analysis.

Construction emissions can be on-site or off-site. On-site emissions principally consist of exhaust emissions from construction equipment, fugitive dust from grading and excavation, and emissions from asphalt paving and architectural painting. Off-site emissions typically consist of exhaust emissions from truck traffic and worker commute trips, road dust associated with traffic to and from the site, and fugitive dust from trucks hauling materials, construction debris, or excavated soils from the site.

The proposed project site contains approximately 3.09 acres of landside area and 1.11 acres of waterside area that will undergo demolition, excavation, and construction activities. On the land side, the demolition will include two existing buildings and the temporary public parking lot. The waterside demolition includes the dock (excluding the Sheriff's dock).

a. Global Climate Change

The "Amendments to the CEQA Guidelines Addressing Greenhouse Gas Emissions" mandated by Senate Bill 97 took effect on March 18, 2010. The Amendments require the quantification and mitigation of greenhouse gas emissions. Appendix G to the CEQA Guidelines, the Environmental Checklist Form, now includes the following section:

VII. Greenhouse Gas Emissions – Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

The following greenhouses gases have been identified as the major contributors to the effects of global warming and climate change:

- Carbon dioxide (CO_2)
- Water vapor
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluoromethane (CF_4)
- Perfluoroethane (C_2F_6)
- Perfluorobutane (C_4F_{10})
- Perfluoro-2-methylpentane (C_6F_{14})
- Sulfur hexafluoride (SF_6)

These gases absorb and emit infrared radiation and therefore play an essential role in influencing the earth's climate. GHG reduces the loss of heat into space and contributes to global temperatures through the greenhouse effect. CO_2 emissions from human activities represent the most significant percent of the total GHG emissions. While water vapor is a naturally occurring GHG that also accounts for a large percentage of GHG effects, human activity does not directly affect water vapor concentrations except at local levels such as near irrigated fields. The U.S. Environmental Protection Agency ranks the major greenhouse gas contributing end-user sectors in the following order: industrial, transportation, residential, commercial, and agricultural. Aside from water vapor, which has a residence time of days, most GHGs take many years to leave the atmosphere. Some examples of the atmospheric lifetime of GHGs include:

- Carbon dioxide – recovery from a large amount of burning fossil fuels could be estimated at tens of thousands of years
- Methane – 12 ± 3 years
- Nitrous oxide – 120 years
- CFC-12 – 100 years
- HCFC-22 – 12.1 years
- Tetrafluoromethane – 50,000 years
- Sulfur hexafluoride – 3,200 years

Air districts have traditionally provided guidance to local lead agencies in evaluating and addressing air pollution impacts from projects subject to CEQA. The CEQA

Guidelines require lead agencies to "describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project," by either using a model or methodology to quantify greenhouse gas emissions or relying on a qualitative analysis or performance based standards. In the absence of adopted thresholds, it is difficult to assess a project's impacts related to greenhouse gas emissions either on an individual or cumulative level. However, the lack of established thresholds does not relieve lead agencies of the responsibility to analyze and mitigate significant impacts. CEQA requires the avoidance or mitigation of significant adverse environmental impacts where there are feasible alternatives available. Suggested mitigation for greenhouse gas emissions includes:

- Mitigation identified in an existing plan
- Project design features that would reduce project emissions
- Off-site measures
- Sequestration (sequester project-related GHG emissions from being released into the atmosphere)
- Measures to be implemented on a project-by-project basis

Air district air quality plans, rules, and regulations have the potential to decrease GHG emissions within their respective jurisdiction. Generally, air district air quality plans, rules and regulations act to reduce ozone precursors, criteria air pollutant and toxic air contaminant emissions, which would normally reduce GHG emissions simultaneously. Adherence to such plans, rules and regulations is the first step in the reduction of GHG impacts.

The KPC Assessment includes projected CO emissions for each construction phase as detailed below. In addition, mitigation measures related to the above-noted air quality plans, rules and regulations will provide reductions in GHG emissions. Further discussion is provided in each construction phase discussion below.

b. Demolition

Demolition includes two structures located at the site. Total demolition is approximately 3,100 square feet, with an estimated total volume of 30,000 cubic feet of material and a daily volume of 7,500 cubic feet. The Department of Beaches & Harbors trailers are not slated for demolition and will be relocated prior to any demolition.

The 10-day demolition period will include use of 6 pieces of heavy equipment – i.e., 1 dozer, 1 tractor/loader/backhoe, 2 dump trucks, 1 hydraulic hammer, and 1 rubber-tired loader, each operating 8 hours per day. Removal of all building material from the site was estimated using 20-cubic-yard on-road trucks with a 100-mile round trip for disposal.

Dust is normally the primary concern during construction. This includes small, inhalable particulate matter and larger diameter particles that rapidly settle out on any surface adjacent to the source. These emissions are called "fugitive" emissions because they are not able to be collected and discharged through a controlled source.

Dust emission rates vary as a result of many parameters such as soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance, or excavation. The SCAQMD 1993 CEQA Air Quality Handbook estimates daily PM_{10} emissions during construction to be 26.4 pounds per day per acre disturbed when "standard" dust control procedures required by SCAQMD Fugitive Dust Rule 403 are used. Dust control measures include the use of chemical stabilizers. Once the stabilizer has cured (2 to 24 hours depending on the type used), the stabilizer will be bound to the soil particles and will have minimal wash-off from the site. Mitigation Measure AQ-7 requires that nontoxic stabilizers such as Soil Sement® be used. Upgraded dust control measures will reduce the average emissions rate to as low as approximately 10 pounds per day with an aggressive control program.

Table 5.2-6 Demolition Emissions

Pollutant	Unmitigated (lbs/day)	Mitigated (lbs/day)	SCAQMD Threshold
ROG	6.62	6.62	75
NO_X	60.43	60.43	100
CO	24.98	24.98	550
PM_{10}	5.91	5.91	150
SO_X	.02	.02	150
$PM_{2.5}$	3.16	3.16	55
CO_2	6,808.70	6,808.70	n/a

The California Air Resources Board emissions computer model URBEMIS was used to estimate the demolition emissions for the proposed project. Table 5.2-6 contains the project demolition emission estimates.

All emissions are below the daily SCAQMD thresholds of significance. The highest level of emissions will result from NO_X and CO_2 emissions that will be generated predominantly by exhaust emissions from heavy equipment operating on the site. Mitigation measures have been included in the DEIR to reduce impacts to air quality.

It should be noted that mitigation measures do not uniformly lower the various project emissions. Rule 403, which governs fugitive dust, requires mitigation measures to lower PM_{10} and $PM_{2.5}$ such as watering of the graded area to reduce dust. Watering at least two times per day will lower the PM emissions but will not reduce ROG or NO_X. In addition, some data and mitigation measures cannot be quantified or modeled using URBEMIS and are incorporated to reduce toxic emissions to the lowest possible levels per SCAQMD guidelines and regulations.

c. Mass Grading

Mass grading includes land clearing and grubbing operations. Also included in the emissions estimate for this phase of the project are removal of the existing temporary public parking lot and pile driving operations along the waterfront. Estimates are based on worst-case PM_{10} levels at 38.2 lbs/day utilizing 11 pieces of heavy equipment (9 pieces of heavy equipment for grading operations and 2 pieces for pile driving) – i.e., 1 dozer, 1 dump truck, 1 excavator, 2 scrapers, 1 loader, 1 crane, 1 bore/drill rig

(pile driver), 1 roller/compactor, 1 street sweeper, and 1 water truck over a period of approximately 30 working days. A daily disturbance of approximately 1 acre was estimated. A total of 20,400 cubic yards of export is estimated for the site grading.

Grading impacts also include emissions from 12-cubic-yard on-road trucks hauling approximately 28,050 cubic yards of soil and asphalt material from the site with 47 trips per day using 20-cubic-yard on-road trucks traveling 100 miles round trip.

Table 5.2-7 Mass Grading Emissions

Pollutant	Unmitigated (lbs/day)	Mitigated (lbs/day)	SCAQMD Threshold
ROG	22.62	22.62	75
NO_X	**246.86**	**246.85**	100
CO	101.19	101.19	550
PM_{10}	49.41	32.10	150
SO_X	.19	.19	150
$PM_{2.5}$	17.89	14.43	55
CO_2	30,714.00	30,714.00	n/a

Bold underline indicates exceedance of SCAQMD threshold.

The URBEMIS modeling program was used to estimate grading emissions impacts. Table 5.2-7 contains the estimated quantities and the SCAQMD thresholds.

All emissions are below the daily SCAQMD thresholds of significance with the exception of NO_X, which will predominantly be due to heavy equipment exhaust emissions and hauling/exporting soil and asphalt material from the site to an off-site disposal location. Emissions can be reduced by extending the schedule for grading, decreasing equipment operating time, and/or decreasing the total number of heavy equipment operating each day. Mitigation measures have been included in the DEIR to reduce impacts from grading emissions.

d. Fine Grading Emissions

Fine grading is defined as preparation of the ground surface for project construction and achieving final site grade. Emissions were assessed using a default URBEMIS scenario with PM_{10} levels at 20 lbs/acre/day utilizing 4 pieces of heavy equipment including 1 grader, 1 rubber tired dozer, 1 roller/compactor, and 1 water truck. This phase would extend over a period of approximately 14 active work days.

Table 5.2-8 Fine Grading Emissions

Pollutant	Unmitigated (lbs/day)	Mitigated (lbs/day)	SCAQMD Threshold
ROG	1.92	1.92	75
NO_X	15.79	15.79	100
CO	7.94	7.94	550
PM_{10}	20.80	12.11	150
SO_X	0.00	0.00	150
$PM_{2.5}$	4.91	3.09	55
CO_2	1,599.20	1,599.20	N/A

Table 5.2-8 depicts the projected emissions that will occur during the fine grading phase of construction. No projected fine grading emissions exceed the daily SCAQMD thresholds. No mitigation measures will be required. However, mitigation measures that are included in this DEIR will further reduce emissions impacts from fine grading. These include site watering and no grading when wind speeds exceed 25 miles per hour.

e. Site Trenching/Foundation Emissions

This category includes site preparation for utilities and foundation/footing work to support the site structures. Emissions estimates are based on the use of 4 pieces of heavy equipment, including 2 concrete trucks, 1 roller/compactor, and 1 water truck for a period of approximately 14 active work days.

Table 5.2-9 Trenching/Foundation Emissions

Pollutant	Unmitigated (lbs/day)	Mitigated (lbs/day)	SCAQMD Threshold
ROG	5.50	5.50	75
NO_X	46.49	46.49	100
CO	20.30	20.30	550
PM_{10}	2.13	2.13	150
SO_X	0.00	0.00	150
$PM_{2.5}$	1.95	1.95	55
CO_2	5,238.90	5,238.90	n/a

Table 5.2-9 depicts the projected emissions during the trenching/ foundation phase of construction.

No projected trenching/foundation emissions exceed the daily SCAQMD thresholds. No mitigation measures will be required. However, mitigation measures that are included in this DEIR generally will reduce emissions impacts from construction activities.

f. Building Construction Emissions

This phase of construction includes the fabrication of the boat storage structure and construction of the customer lounge/offices and Sheriff's Boatwright/Lifeguard facility. Estimates were based on using 11 pieces of equipment including 1 dozer, 1 aerial lift, 1 concrete truck, 2 cranes, 2 forklifts, 1 excavator, 2 loaders, and 1 street sweeper for a period of approximately 180 days.

Table 5.2-10 Building Construction

Pollutant	Unmitigated (lbs/day)	Mitigated (lbs/day)	SCAQMD Threshold
ROG	9.44	9.44	75
NO_X	79.32	79.32	100
CO	43.51	43.51	550
PM_{10}	3.88	3.88	150
SO_X	0.01	0.01	150
$PM_{2.5}$	3.53	3.53	55
CO_2	8,774.40	8,774.40	n/a

Table 5.2-10 depicts the projected emissions related to this phase of construction.

No projected building construction emissions exceed the daily SCAQMD thresholds. No mitigation measures will be required. However, mitigation measures that are included in this DEIR will reduce emissions impacts from the construction phases of the project.

g. Architectural Coatings

During finish work, application of paint and coatings can create ROG emissions substantially exceeding the SCAQMD threshold. This estimate is based on coatings taking place over a 60-day period using URBEMIS defaults with mitigation for using Low VOC coatings. Emissions minimization can be accomplished through mitigation as follows:

- Use of pre-coated building materials
- Use of high pressure-low volume (HPLV) paint applicators with 50% efficiency
- Use of "No VOC" coatings that contain <1g/1 VOC
- Most architectural coatings will be applied as interior paints.

Table 5.2-11 Architectural Coatings Emissions

Pollutant	Unmitigated (lbs/day)	Mitigated (lbs/day)	SCAQMD Threshold
ROG	19.47	19.47	75
NO_X	0.01	0.01	100
CO	0.22	0.22	550
PM_{10}	0.00	0.00	150
SO_X	0.00	0.00	150
$PM_{2.5}$	0.00	0.00	55
CO_2	28.20	28.20	n/a

Table 5.2-11 contains emissions estimates for the application of architectural coatings.

No emissions related to architectural coating applications exceed the SCAQMD thresholds. No mitigation measures are required. However, the above-noted mitigation is included in the DEIR to further reduce architectural coating emission impacts. This mitigation calls for the use of low VOC coatings where feasible.

Asphalt Emissions

The proposed project will require asphalt paving for the parking lot area and certain other areas of the site. The following estimates are based on use of 1 paving unit, 2 rollers, 1 tractor/loader/backhoe, 1 water truck, 1 street sweeper, 1 loader, and 2 dump trucks over a 10-day period. Approximately 1.13 acres of the site will be paved. No mitigation values were included in the analysis of asphalt operations.

Table 5.2-12 Asphalt Emissions

Pollutant	Unmitigated (lbs/day)	Mitigated (lbs/day)	SCAQMD Threshold
ROG	6.96	6.96	75
NO_X	54.88	54.88	100
CO	24.47	24.47	550
PM_{10}	2.79	2.79	150
SO_X	0.00	0.00	150
$PM_{2.5}$	2.56	2.56	55
CO_2	6,302.50	6,302.50	n/a

Table 5.2-12 depicts emissions estimates for asphalt operations. All asphalt emissions are below the daily SCAQMD thresholds. ROG emissions are predominantly due to emissions generated through architectural coatings and asphalt portions of the building area. NO_X emissions are predominantly the result of exhaust emissions from heavy equipment on the site. No mitigation measures are required. However, construction emissions generally can be reduced by employing mitigation measures included in this DEIR.

h. Greenhouse Gas

Global climate change in the weather can be measured by wind patterns, storms, precipitation, and temperature. Climatic factors are divided between those caused primarily by human activity (such as greenhouse gas (GHG) emissions and aerosol emissions) and those caused by natural forces (such as solar irradiance). A primary cause of GHG emissions is the burning of fossil fuels.

The proposed project will include a total construction phase of approximately eight to ten months during which heavy equipment will be used for demolition, grading and construction. Short-term impacts in the area of greenhouse gases will be due to the use of heavy equipment. The URBEMIS is the most widely used model and was used to assess emissions for the proposed project. URBEMIS is designed to model emissions associated with development of urban land uses. URBEMIS attempts to summarize criteria air pollutants and CO_2 emissions that would occur during construction and operation of new development. This model was developed and approved by CARB and ensures statewide consistency in how CO_2 emissions are modeled and reported from various project types. The URBEMIS model is the most effective tool for assessing CO_2 greenhouse gas emissions available to date.

The Air Quality Assessment included projected CO_2 emissions for demolition, mass grading, fine grading, trenching, building construction, architectural coatings, and asphalt emissions. According to the U.S. Environmental Protection Agency (EPA), the average 2-person household produces 41,500 pounds of CO_2 emissions per year.

The Guidelines submitted by the Office of Planning and Research, §15064.4 (Determining the Significance of Greenhouse Gas Emissions) states that "A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting."

The table below depicts projected CO_2 emissions for each phase of the construction.

Construction Phase	Unmitigated lbs/day
Demolition	6,808.70
Mass Grading	30,714
Fine Grading	1,599.20
Trenching/Foundation	5,238.90
Building Construction	8,774.40
Architectural Coatings	28.20
Asphalt	6,302.50

The current state annual GHG emissions are approximately 541,000,000 tons per year. In order to model the projected project, URBEMIS defaults were used to present a worst-case scenario, including natural gas use and basic landscaping upkeep which would generate 796.20 tons of GHG per year from the proposed project. The GHG emissions generated by the project represent 0.00000147 percent (1.5x10-6) of the state GHG burden and would not contribute significantly to the global or state GHG emissions.

The proposed project is replacing existing maintenance and Sheriff's Boatwright/ Lifeguard facilities on the site which do not conform to current Title 24 standards for new construction. The reconstructed facilities will be required to comply with standards in Title 24. From this, it can be inferred that the newly constructed facilities

will have no greater operational impact on the environment than the existing structures and will have the potential to reduce the environmental impact of the existing Sheriff's Boatwright/Lifeguard facilities. However, in the absence of thresholds, it can be assumed that any contribution to GHG is a significant impact. Therefore, short term construction impacts are considered significant and unavoidable.

Mitigation measures have been included in the EIR that are intended to reduce short-term construction air quality impacts generally. Mitigation aimed to reduction of emissions from fossil fuels includes use of low sulfur fuel, use of on-site power sources rather than diesel or gasoline generators, and limitations to allowing idling of vehicles. However, in the absence of state or federal guidelines or thresholds, it must be assumed that the emission of GHG is a short-term significant impact.

i. Construction Impacts

Construction emissions are well below the SCAQMD daily significance thresholds for CO, ROG, PM_{10}, $PM_{2.5}$ and SO_X. However, if all building equipment and asphalt equipment were operating at the same time, an exceedance of NO_X above the significance threshold could occur. NO_X levels could be reduced by limiting the building construction equipment in use while asphalt operations are taking place. As modeled, the predicted emissions for all other categories would be considered to have a less than significant adverse impact during the construction phase of the project. The highest levels of emissions will be short term and will cease with the completion of project construction activity. Mitigation measures will be utilized to lower the emission levels in all pollutant categories, including adherence to SCAQMD Rules 402, 403 and 403.1.

2. Area and Operational Emissions

A Traffic Impact Analysis conducted by Linscott, Law & Greenspan, Engineers, and default data from similar projects using the URBEMIS program were used to obtain data for the analysis of operational emissions. The calculated values were based on day-to-day operation and maintenance, consumer product use, and vehicle trips associated with the movement of materials, products, residents, visitors, and employees. Area source emissions include consumer products, natural gas use, and landscaping equipment. No mitigation measures were used to calculate air emissions in the URBEMIS model. However, Mitigation Measures are included as previously discussed.

The operation of the proposed project will include use of an electrical powered hoist for the movement of boats into and out of the dry stack boat storage structure. The boat storage and the Sheriff's Boatwright/Lifeguard facility will conduct cleaning, coating, and blasting operations as part of routine boat maintenance. Coating and blasting are regulated by the SCAQMD, and such operations will require appropriate permits. The facility operators will be required to comply with Rule 1106 (Marine

Coating Operations), Rule 1106.1 (Pleasure Craft Coating Operations), and Rule 1140 (Abrasive Blasting), in addition to mitigation measures herein.

Table 5.2-13 Area and Operational Emissions

Pollutant	Unmitigated (lbs/day)	SCAQMD Threshold
ROG	3.95	55
NO_X	5.11	55
CO	42.13	550
PM_{10}	5.80	150
SO_X	0.03	150
$PM_{2.5}$	1.14	55
CO_2	4,470.84	n/a

Table 5.2-13 contains the resulting emissions generated by the above-noted categories.

The majority of emissions associated with Area and Operational Emissions are generally due to vehicle exhaust emissions. Operational emissions can include consumer product use and vehicle trips. Area emissions can include consumer products, natural gas use, and landscaping equipment use. As shown in the table, no SCAQMD daily thresholds will be exceeded by these emissions. Therefore, regional emissions associated with the combined area and operational emissions would be considered to have a less than significant impact on air quality. Permits are required by the SCAQMD prior to construction, installation, or operation of emissions generating equipment unless specifically exempted. The project will be required to comply with SCAQMD regulations, as well as mitigation measures provided herein, which will further reduce operational emissions impacts.

An operational impact will occur from boat motors idling during ingress and egress at the queuing docks. An addendum report was prepared by KPC Environmental, Inc. (KPC) to analyze levels of emissions assuming all the queuing docks were occupied and boat motors were allowed to idle for five minutes while at the dock. The addendum is included herein in Appendix D. Emissions were determined using the U.S. EPA non-road emissions modeling software version 2005 with 2008 updates. The Los Angeles County Region default was used for the summer season, weekend usage, which represents a worst case scenario. The majority of boat use takes place between April and September. According to the California Air Resources Board (CARB), the estimated annual average usage for pleasure craft is less than 60 hours.

The two primary engine categories used for emissions determinations were inboard/sterndrive 300 to 600 horsepower diesel fuel and inboard/sterndrive 175 <= 300 horsepower gasoline engines. The emissions factors were converted from grams per operating hour to pounds per operating hour in order to compare the results with the SCAQMD' s emissions thresholds as shown in Table 5.2-13 above.

Table 5.2-14 Emissions Factors Grams per Operating Hour

Pollutant	Inboard/Sterndrive Diesel Fuel[1]	Inboard/Sterndrive Gasoline[2]
THC (total hydrocarbon)	35	211
NO_X	826	364
CO	140	5414
PM_{10}	17	3
SO_2	19	8
CO_2	71,837	39,173

1 300 <=600 HP
2 175 <= 300 HP; 4-stroke

Table 5.2-15 Emissions Factors Converted Pounds per Operating Hour

Pollutant	Inboard/Sterndrive Diesel Fuel[1]	Inboard/Sterndrive Gasoline[2]
THC (total hydrocarbon)	.08	.47
NO_X	1.82	.80
CO	.31	11.9
PM_{10}	.04	.01
SO_2	.042	.02
CO_2	158	86.4

1 175 <=300 HP
2 175 <= 300 HP; 4-stroke

The adjacent tables (Table 5.2-14 and Table 5.2-15) depict the grams per operating hour and the converted pounds per operating hour, respectively.

Using the conversion factors, KPC assumed the emissions estimates based on a maximum queuing of 66 boats on a weekend. Analysis of peak boat usage periods for similar dry stack facilities and the projected number of boats that can be moved by the crane in one hour determined the amount of queuing space required (40 spaces required, 26 overflow spaces). The queuing area is depicted on Exhibit 4.3-4 – Boat Queuing (page 4-17).

The emissions attributed to the estimate included limited idling and vessel egress and ingress. It was noted that the majority of vessel usage and emissions will occur off the coast.

Table 5.2-16 Estimated Boat Emissions Pounds/Hour

Pollutant	Inboard/Sterndrive Diesel Fuel	Inboard/Sterndrive Gasoline	Total
THC (total hydrocarbon)	3.68	9.40	13.08
NO_X	83.72	16.00	99.75
CO	14.26	238.00	252.26
PM_{10}	1.84	0.2	1.86
SO_2	1.932	.40	2.332
CO_2	7,268	1,728	8,996

The adjacent Table 5.2-16 depicts the resulting emissions for 66 boats idling and ingressing/egressing the docks for a period of one hour.

The 1 hour estimated NO_X emissions exceed the daily SCAQMD threshold of 55. However, the operation emissions for the project are anticipated to be significantly less than modeled since the estimates are based on a single hour at full load, with a total of 66 vessels in operation simultaneously. The addendum report recommended mitigation that would restrict dockside idling to a maximum of five minutes. This requirement has been included as Mitigation Measure AQ-14. Adherence to Mitigation Measure AQ-14 will ensure that no significant impacts will occur due to boat idling emissions.

3. CO Hotspot Analysis

The Air Quality Assessment used intersection modeling comparable to that used on similar intersections in Los Angeles and Orange County for the CO hotspot analysis. The model used future project traffic with the existing traffic, plus ambient growth plus the proposed project during AM and PM peak periods for the year 2011. The intersections analyzed were taken from the Traffic Impact Assessment as follows:

1. Admiralty Way at Fiji Way
2. Admiralty Way at Mindanao Way
3. Admiralty Way at Bali Way
4. Lincoln Boulevard at Fiji Way
5. Lincoln Boulevard at Mindanao Way
6. Lincoln Boulevard at Bali Way

The air quality analysis was performed using the Emfac program and traffic values from the Traffic Impact Analysis to determine the emissions factor and the CALINE 4 program to determine the 1-hour concentration of CO. A background level of 4 parts per million (ppm) for CO was used, which is the highest level of CO measured at SRA #2 for the previous 3 years. The 8-hour concentration was determined by using a ratio between the recorded high 1-hour and 8-hour concentrations over a 3-year period for a calculated ratio of .64. SCAQMD's table in the CEQA Handbook indicates that when monitored CO is not available, the persistence factor should be 0.8.

The analysis took into consideration the local traffic network, the worst-case scenario for wind and temperature. Sensitive receptor locations were based on receptor locations used in previous environmental studies for the area and at each intersection corner along the sidewalks and pedestrian areas.

Table 5.2-17 CO Peak Traffic Emissions

Intersection	AM		PM	
	1-Hour	8-Hour	1-Hour	8-Hour
Admiralty Way / Fiji Way	4.9	3.1	5.2	3.3
Admiralty Way / Mindanao Way	5.2	3.3	5.4	3.5
Admiralty Way / Bali Way	5.1	3.2	5.3	3.4
Lincoln Blvd. / Fiji Way	6.2	3.9	5.9	3.8
Lincoln Blvd. / Mindanao Way	5.8	3.7	5.8	3.7
Lincoln Blvd. / Bali Way	5.3	3.4	5.6	3.6
CO State Standard	20 ppm	9 ppm	20 ppm	9 ppm
# of Exceedances	**0**	**0**	**0**	**0**

Table 5.2-17 depicts the AM and PM Peak Traffic CO measurements.

The result of the analysis for the AM and PM peak hours is that no CO Hotspots exist or are created at the study intersections or the receptor locations. The analysis represented a worst-case scenario with substantially no winds and a background CO concentration of 4 ppm. Since the highest level of CO is 6.7 (AM Peak at Lincoln Boulevard and Fiji Way) under existing, plus project, plus ambient growth for 2011 traffic conditions, no existing or future CO hotspots are forecast to occur due to the proposed project. The hotspot analysis concludes that the CO concentrations generated by project area traffic will have a less than significant impact.

4. Consistency with the Air Quality Management Plan (AQMP)

Pursuant to CEQA Guidelines §15125, an EIR must discuss any inconsistencies between the proposed project and applicable General Plan(s) and regional plans. Accordingly, the project was analyzed for consistency with the current AQMP. While the dry stack boat storage structure was not specifically identified, the proposed project site is included in the County's General Plan and the Marina del Rey Specific Plan. Population and traffic forecasts contained in the General Plan are reflected in the AQMP. The AQMP provides a basis for assessing air quality within the SCAB and provides for pollutant control strategies.

Based on the project air quality assessment, except for construction related NO_X emissions, short-term construction and long-term operation would not exceed the SCAQMD thresholds of significance. NO_X emission levels can be reduced with mitigation measures as outlined in this DEIR. Additionally, short-term construction activities would not increase either the frequency or severity of SCAQMD air quality violations, since the project will be required to comply with SCAQMD Rules and Regulations. The analysis for the project's long-term local air quality impacts shows that local pollutant concentrations are not projected to exceed any of the air quality standards.

The Air Quality Assessment conducted for the project included estimations of toxic air contaminants in the operation of the facilities using the URBEMIS program. A similar boat storage facility does not currently exist on the site and, therefore, no decommissioning of equipment was included in the study. Sheriff's boatwright operations are not predicted to change as a result of the project. The Assessment did take into account the operation of an electrical-powered hoist, the potential for future maintenance operations at the storage structure and the Sheriff's Boatwright/Lifeguard facility, and all operations and equipment that have to be permitted and operated according to SCAQMD regulations.

Because the project is not expected to increase the population or traffic conditions beyond what is forecast in the General Plan, regional emissions associated with the project are accounted for within the AQMP and are, therefore, consistent with the AQMP.

5.2.4 Mitigation Measures

1. Short-Term Impacts

All potential short-term air quality impacts associated with construction of the project were shown to be below the thresholds of significance as identified above. To further minimize potential effects, during construction and grading activities the construction contractor shall ensure that standard construction practices set forth in the SCAQMD Handbook shall be implemented. In addition, the following mitigation measures, as specified in the Air Quality Assessment, shall be included:

AQ-1 During construction, the Applicant shall ensure that standard construction practices as set forth in the SCAQMD Handbook shall be implemented.

AQ-2 During construction, the Applicant shall ensure that all construction equipment is properly serviced and maintained in good operating condition to reduce emissions. The SCAQMD requires that fuel injection timing be retarded two degrees from the manufacturer's recommendation and use high-pressure injectors.

AQ-3 During construction, the Applicant shall ensure that low emission mobile construction equipment is used (replace diesel-powered equipment with gasoline-powered equipment), where feasible, during the preparation, grading, excavation, and construction of the proposed project components.

AQ-4 During construction, the Applicant shall ensure that proposed project-specific sites are watered and that construction trucks pass through a shaker grate to remove excess dirt prior to exiting the site.

AQ-5 During construction, the Applicant shall ensure that when soil is transported the operator: 1) employs water to moisten earthen surface prior to disturbance and immediately after disturbance; 2) controls runoff so it does not saturate the surface of unpaved haul roads and cause track-off; and 3) employs watering as an emergency measure during high wind events to stabilize active dust surfaces including but not limited to soil piles, unpaved roads and unpaved parking areas.

AQ-6 During construction the Applicant shall ensure that water-wetting methods and soil-binders are used on exposed soil stockpiles, unpaved roads, and unpaved parking areas. Active grading areas shall be watered at least two times each workday, as needed, to prevent visible plumes from exiting the project site.

AQ-7 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, nontoxic chemical soil stabilizers such as Soil Sement® are applied, according to the manufacturer's specification, to all inactive construction areas, defined as previously graded areas, which are inactive for 96 hours or more.

AQ-8 During construction, the Applicant shall ensure that during site preparation, grading, excavation and construction, public streets are swept if silt is deposited on these roads from construction activities within the project site.

AQ-9 During construction, the Applicant shall ensure that site preparation, grading, excavation, and construction operations are suspended when wind speeds exceed 25 miles per hour.

AQ-10 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, low sulfur fuel is used for stationary construction equipment.

AQ-11 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, on-site power sources are used rather than temporary diesel or gasoline ICE generators when feasible.

AQ-12 During construction, the Applicant shall ensure that low VOC coatings, solvents, and asphalt be used where feasible.

AQ-13 During construction and operation, the Applicant shall ensure that idling of delivery trucks shall be kept to a minimum and, where feasible, should be limited to no longer than five minutes.

AQ-14 During operation, the facility operator shall ensure that idling of boats at the queuing dock shall be limited to no longer than five minutes.

5.2.5 Level of Significance after Mitigation

Implementation of the mitigation measures identified above would result in additional reductions in PM_{10} and $PM_{2.5}$ construction emissions. Long-term emissions associated with the project are not expected to exceed the significance thresholds. Project-specific and cumulative air quality impacts are projected to remain less than significant with implementation of mitigation measures. However, short-term construction GHG emissions will result in a significant and unavoidable impact.

5.2.6 Cumulative Impacts

The proposed project, in conjunction with growth and development within the SCAB, would further hinder achieving conformance with the regional AQMP. Because the SCAB has been classified as a non-attainment air basin for compliance with the federal Clean Air Act, the proposed project will have an incremental impact on cumulative air quality conditions.

Emissions modeling for the construction of the proposed project indicate that the project emissions should remain below levels of significance for each of the air quality constituents for which the SCAB is currently in non-attainment. However, on a cumulative basis, the proposed project will add to the non-attainment with the exception of NO_X emissions during the mass grading phase of the project. The higher level of NO_X during mass grading would be short-term in duration and cease following the end of the grading phase. Emissions for which the SCAB is currently in non-attainment (Ozone, PM_{10} and $PM_{2.5}$) are at less than significant levels and, as such, the project would not significantly add to the cumulative impacts or increases in the non-attainment criteria pollutants in the SCAB.

Greenhouse Gas Cumulative Impacts

In the absence of federal or state greenhouse gas (GHG) emissions thresholds, it can be assumed that any contribution to cumulative GHG is a significant impact. Mitigation measures have been provided to reduce air quality impacts from construction and long-term operation of the proposed project to a less than significant level. However, impacts from GHG due to short-term construction and long-term operations will remain significant and unavoidable.

5.3 Biological Resources

Biological reports and documents are incorporated by reference into this section of the EIR pursuant to CEQA Guidelines §15150. Where a document is incorporated by reference, its pertinent sections will be briefly summarized and referenced in this section of the EIR. This section analyzes the impacts of the proposed project on the biological resources in and near the project site.

Several reports were prepared for the proposed project and are included in Appendix E. This section is based on the documents listed below.

1. Tidal Culvert Field Survey Results and Discussion of Impacts of the Boat Works Project on the Tidal Culvert and Marina Ditch Channel, Area A, Ballona Wetlands dated May 8, 2009 by Rick Ware of Coastal Resources Management, Inc.
2. Letter report from Dr. Jeffrey Froke dated April 21, 2009 regarding focused visits to report heron roosting and nesting.
3. Report entitled *Marina del Rey Boat Central: An Evaluation of Potential Impacts on Marine Bird Populations* dated September 15, 2008 by J.B. Froke, Ph.D.
4. *An Assessment of Marine Biological Resources Associated with Parcels 52R and GG* dated September 13, 2008 by J.B. Froke, Ph.D. of Califauna, in collaboration with Rick Ware of Coastal Resources.
5. Robert A. Hamilton prepared the following three memos, dated August 22, 2007:
    - Assessment of Proposed Boat Central and Fisherman's Village Projects on Herons and Egrets in Marina del Rey
    - Draft Peer Review of Dr. Jeffrey Froke's Heron Studies at Marina del Rey; Conceptual Great Blue Heron Management Strategy
    - Great Blue Heron Nesting Trees as Environmentally Sensitive Habitat Areas
6. *Eelgrass and Invasive Algae Survey and Impact Assessment for the proposed Boat Central Water-Side Facilities, Marina del Rey, Los Angeles, California* dated May 8, 2007 by Rick Ware of Coastal Resources Management, Inc.
7. Wind Impact Assessment dated September 19, 2006 by Rowan Williams Davies and Irwin Inc. (RWDI) in conjunction with Wayne Bezner Kerr of the Migratory Bird Research Group.

The Assessment of Marine Biological Resources was prepared to determine the impacts of the proposed project on biological productivity of marine resources, to develop thresholds of significance for any effects of the project, and to identify practicable means to reduce impacts to species. The Eelgrass and Invasive Algae Survey and Impact Assessment was prepared to determine if eelgrass and invasive algae were present in the vicinity of the proposed project and to assess the potential environmental effects of construction and long-term operation of the facilities on eelgrass and invasive algae or other sensitive marine species within the project area. The Marine Bird Populations report prepared by J.B. Froke evaluated the potential impacts of the project on marine bird populations. The report identified marine bird species that use the site and its immediate vicinity, identified how the project could affect marine birds, determined the significance of potential impacts to bird species, and recommended ways to mitigate any significant threats to species. The Wind Impact Assessment was prepared to assess the effect of the proposed project on wind conditions within the adjacent basins, the potential loss of surface winds used by birds, and the general air circulation in Marina del Rey. The memos written by Robert A. Hamilton were prepared to discuss the issues related to great blue herons with regard to the proposed project and the status of great blue herons in the project vicinity.

5.3.1 Existing Conditions

Marina del Rey is located in Santa Monica Bay, south of Venice, California, and north of Playa del Rey. The marina is approximately 15 miles southwest of downtown Los Angeles and encompasses approximately 403 acres of water. The Ballona Creek Watershed drains approximately 127 square miles of watershed in the County of Los Angeles. Runoff and contaminants from the watershed are discharged into the marina's south entrance channel and Santa Monica Bay at the mouth of Ballona Creek, located down coast from the Marina del Rey harbor.

The proposed project is located in Santa Monica Bay near the outlet of the Ballona Creek Watershed. Area A of the Ballona Wetlands Ecological Reserve is located immediately south of the site across Fiji Way.

The majority of the site is paved; however, a small grassy berm runs parallel to Basin H, and 24 mature palm trees are located on the berm.

An aerial photograph from 1976 shows Parcel GG developed with a single building that corresponds to the Sheriff's maintenance building. Parcel 52 appears vacant and unimproved (Methane Specialists 2007, p 14). Thus, the site has been developed for over 30 years. The project site is currently developed and is not in a natural state. The area surrounding the project site is built out. Land uses nearby the project site include shopping areas and marina-related uses such as boat storage, repair, and maintenance. Fisherman's Village and the Villa Venetia apartment complex are located farther along Fiji Way.

In Marina del Rey, much of the habitat is below the tide level. The floor of the marina is covered with soft-bottom habitats consisting of sands, silts, and clays. The main channel entrance jetties and the breakwall in the marina are constructed of rip rap, which supports hard bottom species of animals. With the exception of rip rap areas, hard bottom in the marina is limited to vertical retaining walls, piers, and floats.

The waterside portion of the project site is located within Basin H of the marina, which is the first easterly basin within the marina, and contains a cement seawall, rock rip rap, and unconsolidated sand-to-silty sediments beyond the rip rap. Sediments in the project area contain a greater proportion of silts with increasing distance into the channel, near the launch ramp docks.

The directional distribution of seasonal winds, based on long-term wind records from the nearby Los Angeles International Airport, indicates that winds from the west, west-southwest, southwest, and east directions are most dominant throughout the year. As detailed in the RWDI Wind Impact Assessment, when winds flow around a building, accelerations occur around the windward building corners and decelerations in the wake area on the leeward side of the building. High turbulence in the wake area is usually associated with variations in wind direction and speed.

The majority of the site is paved; however, a small grassy berm runs parallel to Basin H, and 24 mature palm trees are located on the berm. There is a landscaped area on Parcel GG that fronts Fiji Way. No oak trees or unique native trees are present on the project site. The site does not contain any sensitive plant species. There is no habitat of value on the land portion of the project site due to the fact that it is built out. The proposed project would not affect any riparian resources.

1. Marine Environment

a. Water Quality

This section briefly discusses water quality in Marina del Rey. The following generalizations are based on several years of water quality monitoring results in Marina del Rey:

- Marina del Rey is influenced by dry and wet season runoff from the watershed
- Seasonal runoff characteristics result in high variations in temperature, salinity, dissolved oxygen, and turbidity
- Marina del Rey water quality is influenced by poor tidal flushing and mixing with offshore waters
- Water quality tends to improve in the main channels near the ocean entrance and decline with distance into the back basins

Chemical levels in the waters of Marina del Rey are mostly transitory due to tidal and wind-driven current circulation, in addition to ongoing chemical processes. Therefore, not a great deal of data is available, and most studies rely on chemical information as it pertains to sediments, because the concentrations are more representative of long-term trends.

Site cluster analysis of the various water quality parameters tested by Aquatic Bioassay and Consulting Laboratories (ABC Laboratories) grouped Stations 3, 4, 5, 6, and 25 into a cluster that was highly influenced by ocean water that is cold, saline, clear, blue, and lower in nutrients, organics, and bacteria than other sites inside the harbor. The Ballona Creek and Marina del Rey stations located at the harbor entrance were influenced by the Ballona Creek runoff and open ocean waters. There, the water tends to be cold, less saline, and more oxygenated than at other marina stations, but it is higher in organics and bacterial contamination. Water temperature was monitored from 1976 to 1996 and revealed that seasonal surface water temperatures ranged between 11.0 °C and 28.2 °C. From 1996 to 1997 temperatures ranged from 12.4 °C to 24.6 °C (Froke and Ware 2008, p 23).

Dissolved oxygen in seawater ranges from about 0 to 16 parts per million (0 to 16 milligrams per liter). A value of 5.0 is recognized as a standard acceptable level to sustain marine life, although benthic invertebrates, including crabs, snails, clams, and worms, can sustain levels of dissolved oxygen around 2.0 milligrams per liter. Dissolved oxygen decreases as distance into the back basins increases, because organics build up in the back channel basins and storm drain runoff areas due to reduced tidal flushing activity.

Water salinity (the amount of dissolved salts per unit volume of seawater) varies over a wide range within Marina del Rey. Since 1983, salinity has varied from 0.0 to 34.8 parts per trillion (ppt). Salinity values for all marina stations ranged from 0.1 to 34.9 ppt from 1991 through 1996; a range of 21.1 to 34.1 ppt was recorded for the 1996 through 1997 sampling period.

Water clarity is affected by seasonal runoff during the winter, and occasional plankton blooms, both of which decrease surface transparency. During 1996-1997, surface transparency varied from less than 1 meter to 6 meters. Spatially, water clarity values were highest within the channels (3.4 to 3.7 meters) and near the entrance (3.7 to 3.8 meters), and lowest in Basin E (1.9 meters).

Water column contamination in Marina del Rey is caused by discharges from Ballona Creek, coupled with an inhibition of flushing of marina waters, which leads to an accumulation of chemicals. During the dry season – when Ballona Creek is not a major contributor – the principal source of chemicals in marina waters is directly associated with marine activities such as boating, oil spills, overboard waste disposal, and anti-fouling paint.

Most sediments within Marina del Rey consist of fine silts and clays and lesser percentages of coarser sand materials. ABC Laboratories' studies suggest that the most

contaminated sediments are in the channel (Stations 3, 4, 5, 25) and uppermost portions of the harbor (Stations 9, 10, and 11 in Basin E and F), whereas Basin B and Basin C (Stations 6 and 8) and Basin H (Station 7) have some of the least contaminated sediments in the harbor.

Inflows from Oxford Lagoon and Ballona Creek appear to be the primary sources of pesticide derivatives including dichlorodiphenyl dichloroethylene (DDE; a break-down derivative of DDT), and polychlorinated biphenyls (PCBs). Concentrations of organochlorines in the sediments near the Administration docks and Villa Venetia, both on Fiji Way, were some of the highest in the harbor: Station 4 total DDE level was 21.6 parts per billion (ppb), while the concentration of PCBs was below the detection limits of 20 ppb.

Concentrations of heavy metals in Marina del Rey are highest in the channel and back-basin sediments, and levels are positively correlated to the finer sediments that attract chemical contaminants. Several metals (arsenic, chromium, copper, iron, manganese, mercury, selenium, and silver) likely originate from watercraft in the marina, through hull paints and/or corrosion of metal components of boats and boat engines.

Organic materials – e.g., food nutrients, carbonaceous organics, and food oils and grease – enter Marina del Rey through non-point source storm water runoff from street drains, flood control channels, municipal wastewater discharges, and vessel discharges. Highest concentrations occur in the uppermost areas of the harbor (Basin E and F) and are lowest in Basins B and H and inside the entrance channel breakwall.

b. Benthic Infauna

The benthic infaunal community contains bottom-dwelling organisms that live in or on the surface of the sea floor. These organisms live in unconsolidated sediments. The more abundant members are nematode worms, polychaete worms, clams, snails, arthropods (isopods, amphipods, cumaceans, shrimps, and crabs), and ophiuroid echinoderms (brittle stars) (Froke and Ware 2008, p 29).

Benthic infauna are influenced by the physical and chemical attributes of their environment, such as the grain size of sediments, amounts of organic carbon, sediment nutrients, the presence of trace metals and organochlorines, as well as other contaminants. The benthic community has been the subject of marine studies because they can be used to measure environmental change due to the fact that they inhabit sediments, do not migrate, and are taxonomically diverse.

Historical analysis indicates that nematode worms and annelid worms are the dominant phyla and contribute the largest number of individuals to the infaunal community. Mollusks, crustaceans, and echinoderms are less common. More than 25 years of sampling conducted by the Harbors Project and ABC Laboratories has revealed that the dominant benthic infauna in Marina del Rey include nematodes and several species of polychaete worms. Representative species include the capitellids

Capitella capitata and *Mediomastus ambiseta*, the spionids *Pseudopolydora paucibranchiata* and *Prionospio heterobranchiata,* and the cirratulid *Tharyx* spp (Froke and Ware 2008, p 30). Please refer to the Assessment of Marine Biological Resources (Appendix E) for additional information regarding studies of the benthic community in the marina.

In 1997 ABC Laboratories conducted a study in which stations were grouped together based on similar sediment and biological characteristics. Basins B, H and F were characterized by low diversity but moderate for other indices. Infaunal density (individuals per square meter) ranged from 2,160 at Basin E to 126,640 at the harbor entrance. Species richness varied from 28 species at Station 10 to 78 species at Station 4. Average species richness was 50 species per station.

In 1980 the Southern California Water Research Project conducted a study regarding the benthic community associated with the Administration docks. The benthos in this location had the highest infaunal density (26,630 individuals per square meter), the highest species richness (at 28 species), and a moderate species diversity (fifth highest) of all 10 stations in the marina. The Infaunal Trophic Index value was representative of "normal" conditions on the sea floor.

Dominant species at Station 4 (Basin E and the Administration docks) were the polychaetes *Mediomastus ambiseta, Exogone lourei, Leitoscoloplos pugettensis, Euchone limnicola, Prionospio heterobranchia, Mediomastus californiensis,* and *Armandia brevis*; the caprellid crustacean *Mayerella banksia*; the amphipod crustacean *Amphideutopus oculatus*; and the clam *Tagelus subteres*.

In Ballona Creek, infaunal density was moderately high (73,850 individuals per square meter). Species richness was above average, and species diversity was the lowest of all sites. The Infaunal Trophic Index was on the low range of normal. Dominant taxa included nematode worms; the polychaetes *Mediomastus ambiseta, Pseudopolydora paucibranchiata, Armandia brevis, Polyopthalmus pictus, Exogone lourei,* and *Prionospio heterobranchiata*; the clam *Tagelus subteres*; the cumacean *Oxyurostylis pacifica*; and the caprellid amphipod *Mayerella banksia*.

Benthic studies conducted in 1997 by the State Water Resources Control Board (SWRCB) indicated that the Marina del Rey benthic community structure was adversely correlated with heavy metals, several pesticides and PCBs, sediment grain size, and total organic carbon (TOC). Toxicity tests based upon the survival of amphipods over a 10-day period suggested that toxicity was highest in the basin samples and negatively correlated with metals, tributyltin, ER-M exceedance, and percent clay. Benthic community analyses suggested that marina basin benthic community was "transitional" based on a Relative Benthic Index value (RBI $\leq$ 0.30), whereas Stations 48004 and 48005, which bracket the waters near the Administration docks, were not degraded (RBI $\geq$ 0.61).

c. Fill of Coastal Waters

The site currently contains a dock and a ramp with a surface area of approximately 1,690 square feet. Fourteen 16-inch-diameter piles covering a surface area of 19.5 square feet support the dock and ramp. The proposed dock queuing system is estimated to contain a surface area of 6,500 square feet. Thirty 16-inch-diameter piles will cover a surface area of 50.7 square feet. The placement of piles into the marina bottom represents a "fill of coastal waters" under the federal Clean Water Act. A Section 404 permit will be obtained from the U.S. Army Corps of Engineers to address the biological impacts of the fill.

2. Marine Plants

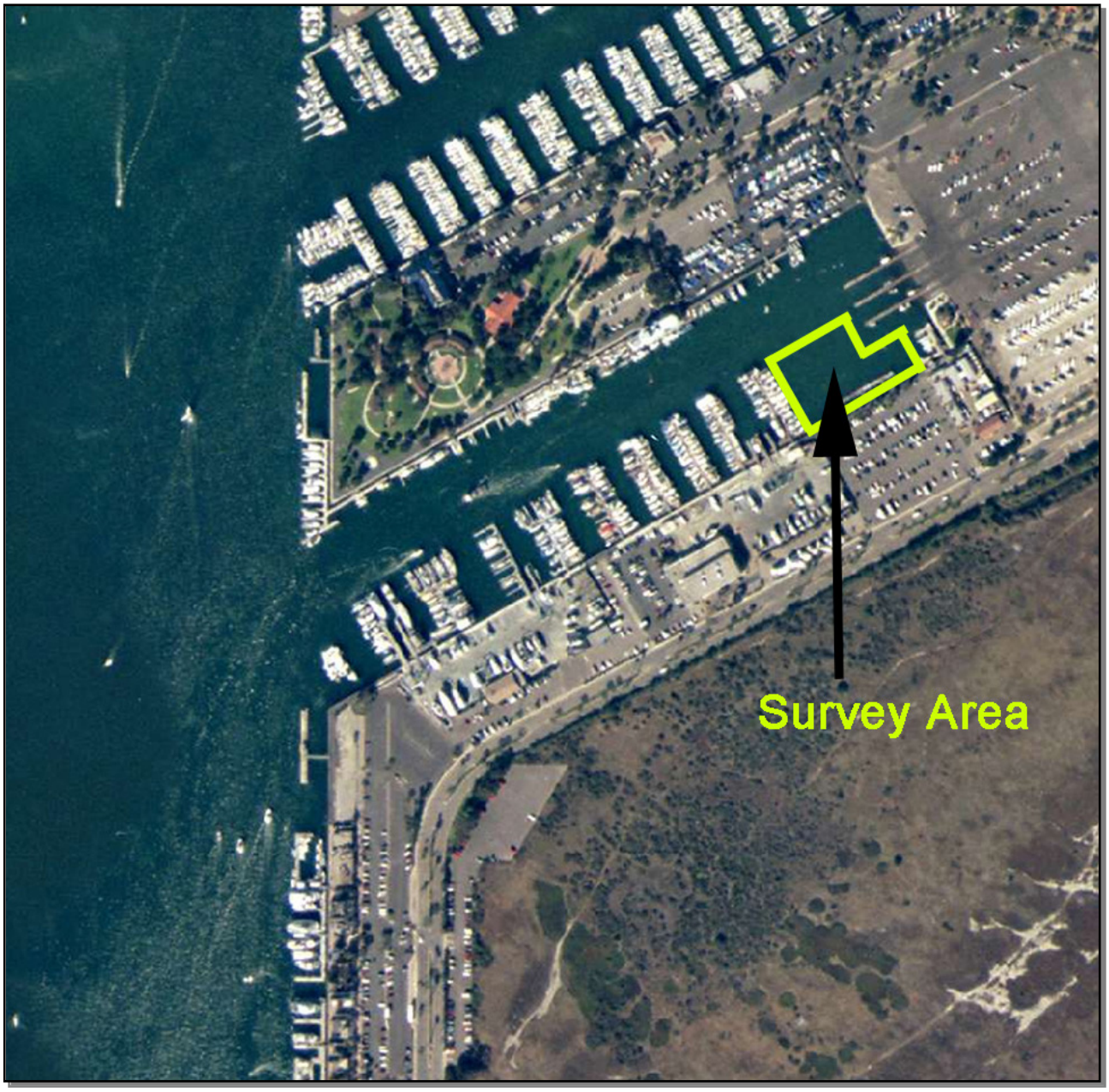
This section discusses the plant species that were analyzed in the Eelgrass and Invasive Algae Survey and Impact Assessment, including invasive algae, brown algae, eelgrass and ditchgrass.

a. Invasive Algae

Caulerpa taxifolia was introduced to Southern California at Agua Hedionda Lagoon in San Diego County in 2000 and at Huntington Harbour in Orange County in 2001. The algae was likely introduced into the environment via people dumping water from aquariums into storm drains or lagoons. Invasive algae has a potential to adversely impact the ecosystem due to its ability to out-compete other algae and seagrasses. When introduced into a non-native habitat, *Caulerpa taxifolia* grows as a dense, smothering blanket, covering and killing native aquatic vegetation and can cause death or displacement of native wildlife that depends on the native aquatic vegetation.

The SWRCB, the National Marine Fisheries Service, and the California Department of Fish and Game require that projects that have potential to spread the species through dredging and bottom-disturbing activities conduct pre-construction surveys to determine if this species is present. As detailed in the Eelgrass and Invasive Algae Survey and Impact Assessment, no invasive algae was located in the project area (Ware 2007, p 9). Marina del Rey is a "non-infected" system and requires "surveillance level" monitoring for the presence of *Caulerpa taxifolia*.

Coastal Resources Management conducted a pre-construction marine biological resources survey in Marina del Rey on October 17, 2006. The purposes of the investigation were: 1) to determine if eelgrass (*Zostera marina*) and invasive algae *Caulerpa taxifolia* were present in the vicinity of the project site, and 2) to assess the potential environmental effects of construction and long-term operation of the facilities on these two species or other sensitive marine species occurring within the project area. Exhibit 5.3-1 shows the waterside biological survey area for the Eelgrass and Invasive Algae Survey and Impact Assessment.



Source: Eelgrass and Invasive Algae Survey and Impact Assessment for the Proposed Boat Central Water-Side Facilities, May 8, 2007, page 4.

Exhibit 5.3-1 – Boat Central Waterside Biological Survey Area

Eelgrass and *Caulerpa* surveys were conducted by Senior Marine Biologist Rick Ware and Technician Lein Jenkins on October 17, 2006. Underwater surveys were conducted within the Basin H project location using SCUBA. Surface support personnel were in communication with the diving-biologist using an Offshore Technology Systems underwater communication system. Surveys were conducted in accordance with the Southern California Eelgrass Mitigation Policy (NOAA 1991) and the Caulerpa Control Protocol NOAA 2008).

A total of twenty-eight 230-foot-long transects and thirteen 108-foot-long transects were swum perpendicular to the seawall at 10-foot intervals. Bottom type, common marine life, and the presence or absence of eelgrass and invasive algae were recorded. Depths were standardized to Mean Lower Low Water (MLLW) based upon time of observation and tidal corrections for the Santa Monica Pier tidal survey station. The area within the marine biological project limits encompassed a total of 70,008 square feet (6,751 square meters). Based upon underwater visibility conditions, the actual amount of bay floor observed by the biologists was 31,366 square feet (2,915 square meters). This accounted for approximately 43% of the total bay floor habitat within the project limits. A minimum of 20% coverage is required for non-infected systems such as Marina del Rey harbor. Thus, the study exceeded requirements for coverage review for the project site.

b. Brown Algae

Brown algae (*Sargassum muticum*) was the most common algae observed growing on the rip rap against the bulkhead. Brown algae is an invasive non-native species that is common in Marina del Rey. The species is present on the existing boat dock pilings and bulkhead on the project site. Brown algae is not considered a sensitive species or a species of significant ecological value.

c. Eelgrass

Zostera marina (also referred to as eelgrass or seawrack) is a marine flowering plant that predominantly grows in soft sediments in coastal bays and estuaries. Eelgrass is the most common seagrass in Southern California, and it has a high ecological value. Eelgrass meadows are critical foraging centers for seabirds and contribute organic detritus that is consumed by benthic invertebrates and reduced to primary nutrients by bacteria. Eelgrass occurs widely throughout Southern California bays and harbors at depths that range from 0.0 to -10 feet (MLLW). Eelgrass vegetation serves as a nursery for juvenile fishes, including California halibut and barred sand bass. Many bottom-dwelling invertebrates – e.g., clams, crabs, and worms – live on eelgrass or within the soft sediments that cover its root and rhizome mass system. Due to its high ecological value, it is important to document the location and amount of the species in areas where waterside development is proposed.

As detailed in the Eelgrass and Invasive Algae Survey and Impact Assessment (Ware 2007), eelgrass was not present in the project area. Additionally, no eelgrass was

reported to be present during a May and December 2006 survey of 22 sites throughout the harbor for the County of Los Angeles Phase 1 Seawall Repair Project. There are no stands of eelgrass known to exist in Marina del Rey. The nearest eelgrass sites are Los Angeles Harbor and Mugu Lagoon (Froke and Ware 2008, p 35).

d. Ditchgrass

Ditchgrass (*Ruppia maritima*) is an uncommon seagrass species found in quiet water habitats that is an important habitat for larval and adult fish. Ditchgrass occurs within Basin D (Mother's Beach), and has occurred irregularly since 1979.

3. Marine Fish and Wildlife

This section discusses the mammals, marine fishes, and birds that could potentially be impacted by the project. As detailed in the Eelgrass and Invasive Algae Impact Assessment, invertebrates and fishes observed within the project area include burrowing anemones (*Pachycerianthus fimbriatus*), predatory sea slugs (*Navanax inermis*), mussels (*Mytilus galloprovincialis*), unid perch (*Embiocidae, unid.),* and round stingray (*Urolophus halleri*). Species are discussed in more detail below.

a. Marine Mammals

Harbor seals, pinnipeds, and cetaceans (whales, dolphins, and porpoises) may be present within Marina del Rey. If present in Basin H, these mammals would veer from the site during construction.

b. Marine Fish

Based on many studies of the Marina del Rey fish populations over the past 20 years, Marina del Rey is believed to be a viable habitat/nursery for numerous species of marine fish (Froke and Ware 2008, p 33).

ABC Laboratories provides much information about fish populations in the marina, which are based on several population and community studies from the 1970s to late 1990. During the 1970s through 1996 Professor John Stephen from the University of Southern California (USC) studied marina fishes both independently and in conjunction with institutions including Vantuna Research Group (Occidental College) and a USC monitoring program. ABC Laboratories continued the Occidental College studies after 1996, and since 1984 the College and laboratory's surveys have recorded 103 species of fish in the harbor. In 1996 ABC Laboratories conducted fish studies that identified 53 species and 235,410 individuals, which included eggs and larvae. Common fish species found along the south breakwater of Marina del Rey during diver surveys in 1996 included opaleye (*Girella nigricans*), sargo (*Anisotremus davidsoni*), black surfperch (*Embiotoca jacksoni*), blacksmith (*Chromis punctipinnus*), barred sand bass (*Paralabrax nebulifer*), queenfish (*Seriphus politus*), kelp bass (*Paralabrax clathratus*), and pile perch (*Damalichthys vacca*). The most abundant

bottom fishes captured by trawl nets in the channel included California halibut (*Paralichthys californicus*), barred sand bass, white croaker (*Genyonemus lineatus),* and round stingray. Topsmelt (*Atherinops affinis*) and deep body anchovy (*Anchoa compressa*) are common schooling fishes found throughout the marina waters (Froke and Ware 2008, p 34). These species will forage on invertebrates and algae on docks, pilings, bulkheads, and rip rap and move and forage throughout Basin H. They will not establish specific territories at a particular site.

Between July 1990 and April 1991 L.G. Allen conducted surveys in lower Marina del Rey and Ballona Creek. During the surveys 6,063 individuals were collected in otter trawl nets, and 29 species were identified. During the survey 23 species and 90% of the individuals were collected in Marina del Rey. Species captured exclusively in Marina del Rey were queenfish, northern anchovy, and white croaker. California halibut, barred sand bass, arrow goby *(Clevelandia ios),* and diamond turbot *(Hypsopetta guttulata)* were captured in comparable numbers in both Marina del Rey and Ballona Creek (Froke and Ware 2008, p 35).

Schooling above the bottom, or mid-water schooling species of fish found in Basin D and in the main channel nearby Basin H are dominated by deep body anchovy, northern anchovy, topsmelt, Pacific sardine (*Sardinops sagax*), and white croaker. These species have a potential to occur in Basin H and nearby the Boat Central project site. While not abundant, white seabass (*Atractoscion nobilis*) have been increasing within the harbor after many years of depressed numbers. These species will move between marina basins and the main channel, and are not basin-specific. These water column schooling fishes are also important as prey items for higher-order fishes (e.g., halibut), or seabirds (e.g., pelicans, least terns). Bottom-dwelling species that are associated with the soft-bottom habitat of the project area include the bay goby (*Lepidogobius lepidus*), California halibut, round sting ray, sand bass, and bay ray (*Myliobatis californica*). Species of either sport fish or commercial value within Basin H and surrounding waters include halibut, kelp bass, barred bass, and white seabass. None of the species are limited in their distribution to Basin H or Marina del Rey Harbor.

The Marine Bird Populations report discusses the fish in Marina del Rey that are foodstuffs of resident and visiting marine birds. Two very abundant schooling fishes in marina waters that are fed upon by marine birds are the topsmelt and the deep body anchovy. Topsmelt will prey on fishes, squid, shrimp, octopus, worms, small crabs, and clams. Their eggs are benthic (they survive at the lowest level in marina waters) and their larvae are planktonic and are found near the surface in shallow and open water. The northern anchovy is also an important species because it is a food source for fish such as the California halibut, rock fish, yellowtail (*Seriola laland*), sharks, Chinook salmon and Coho salmon.

Several species of fish serve as food for birds in the marina, such as queenfish, which inhabit shallow water around piers and pilings. Queenfish feed on small crustaceans, small crabs, and fish and are vulnerable to capture by pelicans, cormorants, and

mergansers. Sargo, which are schooling fishes, congregate around structures such as rock, kelp, and pier pilings, and are suitable prey for great blue herons, great egrets, and red-breasted mergansers. Northern anchovy are an important source of food for marine birds. The breeding success of California brown pelicans and elegant terns is strongly correlated with the abundance of northern anchovy.

Based on collections from 1996, ichthyoplankton (which are the small floating eggs and larvae of fish) inside Marina del Rey were dominated by goby and blenny larvae in the summer and winter months and by anchovy larvae during the summer sampling periods.

c. Marine Birds

J.B. Froke, Ph.D. prepared a report evaluating the potential impacts of the project on marine bird populations. The study of marine birds in relation to the project site is based on year-round observations made during 2006-2008. Findings regarding the birds' use of the site are based on 24 observations made during 18 planned/focused visits to the site and 6 incidental visits. Site visits occurred over 23 consecutive months from October 2006 through August 2008. Bird observations were made in the morning, the afternoon, and after sunset, and individual observations lasted anywhere from 15 minutes to over 2 hours. Four of the 24 observations were overnight, nocturnal observations.

The majority of birds that inhabit Marina del Rey are full-time residents or visitors. Birds that are visiting are seasonal (winter or breeding visitors) or migratory (short-stay migrants). Birds commonly forage for fish and crustaceans from the following predatory vantage points:

1. Sighting and Diving – Birds fly over the water, sight their prey, and dive to catch their prey. Birds that sight and dive for food include terns and pelicans.
2. Swimming – Birds swim on the surface of the water and pick/dive for prey. Pelicans, cormorants, and gulls swim to catch prey.
3. Standing – Birds stand in shallow water or at the edge of the water and wait to strike/grab aquatic prey, including fish and crabs. Herons and shorebirds engage in this behavior.
4. Perching – Birds perch above the water and snap, alight on, or dive for prey beneath the surface of the water. Perches in the Marina del Rey harbor include branches, cables, mooring lines, and decks. Herons and kingfishers tend to perch.

1) Primary Marine Birds

The Marine Bird Populations report analyzes birds that are of primary interest because they are listed as federal and/or California endangered species. In addition, some birds

of primary interest have a special socio-cultural significance to local groups. The following bird species are of primary interest: California brown pelican (*Pelecanus occidentalis Californicus*), double-crested cormorant (*Phalacrocorax auritis*), great blue heron (*Ardea Herodias*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), black-crowned night-heron (*Nycticorax nycticorax*), and California least tern (S*terna antillarum browni*). Observations of the species focused on the bird's association with the project site and its immediate vicinity, including the open water area outside of Parcel 52 and the adjacent public boat launch ramps and docks. The California brown pelican and the California least tern are discussed in the section entitled "Sensitive Species."

a) California Brown Pelicans

Pelicans loaf (one to two at a time) during the daytime on the public docks next to the launch ramps, as they do on docks throughout the marina (e.g., fuel station at A-300 - Marina Fuels, law enforcement docks used by the Coast Guard and the Los Angeles County Sheriff, and public docks in front of Fisherman's Village). Small numbers of pelicans drift in the water by the loafing docks, and near the Parcel 52 dock, as well. Pelicans did not forage during their drift and swim activities. Pelican feeding, which involves sighting prey from in flight and diving, does not take place in the close quarters of the project vicinity.

b) Double-Crested Cormorants

Cormorants are skittish about human activity on the ground. The birds have not been observed on the project docks. Large numbers of cormorants roost and perch in cypress trees along Fiji Way, next to the Coast Guard Station. Only a few cormorants have been observed swimming in the project waters at any one time.

c) Great Blue Herons

The Marina del Rey Land Use Plan (a component of the Los Angeles County Local Coastal Program) does not designate any environmentally sensitive habitats at Marina del Rey, and the great blue heron is not designated by any governmental agency as rare, threatened, endangered, fully protected, or species of special concern (Hamilton 2007a, p 2). The State of California's Natural Diversity Database (CNDDB) designates the great blue heron a "California special animal," a general term that refers to all of the taxa the CNDDB is interested in tracking regardless of their legal or protection status.

Several properties surrounding the project site are known nesting areas for great blue herons (Fisherman's Village, Burton Chace Park). As detailed in the memorandum by Robert A. Hamilton regarding the Draft Peer Review of Dr. Jeffrey Froke's Heron Studies at Marina del Rey, during the past three years great blue herons in Marina del Rey have nested mainly on the south side, along Fiji Way, but also at Mariner's Village on the north side of the marina. Dr. Froke has observed great blue herons nesting in trees 25 to 60 feet tall – mainly Monterey Cypresses (*Cupressus macrocarpa*), with

some use of Mexican fan palms (*Washingtonia robusta*) and Monterey pines (*Pinus radiata*). During his field observations (in July through October 2005 and throughout 2006) Dr. Froke observed great blue herons foraging more frequently in the uplands and seasonally dry fields of the Ballona Wetlands than black-crowned night herons or snowy egrets. Occasionally, individual great blue herons will land on the public launch ramp and docks to sun. Heron use is characterized as infrequent short-term landing.

d) Great Egrets/Snowy Egrets

On occasion great egrets will land on the public launch ramp and docks to sun. Snowy egrets regularly use the Parcel 52 dock to forage. The egrets search returning day boats for live baitfish. Snowy egrets leave the area after fishing boats have left the docks.

e) Black-Crowned Night Herons

Black-crowned night herons were not observed on the on-site or off-site docks and boat ramps during Dr. Froke's bird surveys. Most of the surveys took place during the daytime or at dusk; however, three overnight study sessions did not reveal use of the site or its vicinity by this species. Black-crowned night herons are known to frequent docks and boats inside Marina del Rey and, as a result, use of the launch runways and possibly the project dock can be reasonably expected or predicted.

f) California Least Tern

Least terns infrequently fly over marina shallows as far back as the study docks and the adjacent ramps. More often, terns hunt farther into the embayment. As seen only once, terns may briefly fly over the study site, but return for a run over the deeper and wider waters of the marina channel. Least terns were not observed to land on the docks or the ramps.

2) Secondary Marine Birds

Several secondary animals are identified in the Marine Bird Populations report. These birds are known or expected to associate with the project area and are not specifically protected by state or federal endangered species laws. However, the birds are generally protected by the Migratory Bird Treaty Act of 1918, as amended. The secondary bird species analyzed are western grebe (*Aechmophorus occidentalis*), eared grebe (*Podiceps auritus*), Heermann's gull (*Larus heermannii*), ring-billed gull (*Larus delawarensis*), and red-breasted merganser (*Mergus serrator*).

a) Western Grebes and Eared Grebes

Western and eared grebes are restricted to life in water, as they are in flight relatively briefly. Grebes nest on the edge of the water in floating nests and cannot fly or jump

onto surfaces that are elevated. The grebes' interaction with the project site is to swim and forage in the water.

b) Heermann's Gulls and Ring-billed Gulls

Heermann's gulls and ring-billed gulls are among the most common species of gulls in Marina del Rey. Both gulls loaf on asphalt parking surfaces/pavement docks, runways, and launch ramps. Both gulls search the same areas (above ground surfaces and water) for live prey and inanimate foodstuffs.

c) Red-breasted Mergansers

Red-breasted mergansers visit Southern California harbors from fall through early spring. These birds dive from the water surface to chase fish, crustaceans, and insects, and do so more often around pilings, submerged structures, and rocky crevices.

The list of secondary species will always be incomplete because additional birds occupy or seasonally inhabit the project site.

3) Roosting and Nesting

The landside portion of the project site is limited mostly to an asphalt parking lot with mature palm trees (*Washingtonia robusta*) as detailed below for each of the primary and secondary bird species. No nests or roosting birds were observed on-site. A few double-crested cormorants were observed swimming in Basin H. Heron use of the site was limited to infrequent short-term landing. Great egrets and snowy egrets land on the public launch ramp and docks to sun. Black-crowned night herons were not observed on the on-site or off-site docks and boat ramps. The western and eared grebes' interaction with the project site is to swim and forage in the water. Heermann's gulls and ring-billed gulls were observed loafing on the parking lot on-site. Red-breasted mergansers dive for food in the water. A California least tern was observed flying over the project site once. No California brown pelicans inhabit the project site. Pelicans loaf during the daytime on public docks next to the launch ramp. Some pelicans also drift in the water by the public launch runways and near the Parcel 52 dock. As detailed in the Marine Bird Populations report, birds associated with the project do not nest, either on-site or within its immediate vicinity (Froke 2008, p 40).

A letter report was prepared by Dr. Froke detailing focused site visits during the period March 8 to April 16, 2009. The six visits were for the specific purpose of determining whether any heron or egret species roosted or nested in any of the on-site trees. The report confirmed that no evidence of roosting or nesting of great blue herons, black-crowned night-herons, or any species of egret was found on the site.

4. Sensitive Species

The listing of an endangered species generally protects the species from "take" under federal law, thus making it illegal to harass, harm, pursue, hunt, shoot, wound, kill,

trap, capture, or collect a listed species. Four sensitive species are discussed in more detail below.

a. Tidewater Goby

The tidewater goby (*Eucyclogobius newberryi*) is a federally listed endangered species. This species can be found in shallow marine areas and lower reaches of streams between San Diego and Humboldt County. The tidewater goby population is depleted due to: 1) reduced/eliminated flows in the lower reaches of coastal streams, 2) pollution, and 3) filling, channelization and other destructive changes to their habitats. The tidewater goby does not occur in Marina del Rey or the Ballona Channel, and its population has disappeared from about 74% of the coastal lagoons from Morro Bay south to San Diego (Ware 2007, p 10).

b. California Halibut

The California halibut is considered a sensitive species by resource agencies due to its commercial value and continued region-wide reduction of its nursery habitat in bays and wetlands. The species uses inshore waters of bays, harbors, and estuaries as a nursery habitat. California halibut are common in Marina del Rey. The species frequent the entrance channel habitat more commonly than farther back in the channels or boat basins. The halibut's potential to be present in the Basin H project area is low.

c. California Least Tern

The California least tern is a state and federally listed endangered species. The bird breeds in ocean bays within a very limited range of Southern California. Least terns hunt primarily in shallow estuaries and lagoons to feed on the abundant numbers of smaller fish. Least terns prefer to eat anchovy, smelt, silversides, shiner surfperch, and small crustaceans. The terns frequently feed along shore in the ocean, especially when in proximity to lagoons or bay mouths. Although California least terns forage throughout Marina del Rey, no species inhabit the project site.

There is a major breeding colony of terns at Venice Beach, and the birds' use of the marina for foraging is viewed to be the lowest of eight available types of foraging habitats in the Marina del Rey/Ballona/Venice area. Least terns fly infrequently over shallow waters of the marina, as far back as the study docks and adjacent ramps. Terns more often hunt farther into the embayment. A tern was observed flying over the project site only one time. Terns return to deeper and wider waters of the marina channel. Least terns were not observed landing on the docks or ramps. The terns fly over the site but do not land or forage in the immediate vicinity.

d. California Brown Pelican

The California brown pelican (*Pelecanus occidentalis californicus*) is currently endangered throughout its range in the United States (except along the Atlantic coast,

Florida, and Alabama). The United States Fish and Wildlife Service has completed a five-year study to determine whether there is sufficient credible information to support a delisting of the species. This species was recently delisted from the federal list of threatened and endangered species. The California brown pelican nests only on islands in the Gulf of California and along the outer coast from Baja California to (only recently) West Anacapa and Santa Barbara Islands, off shore of Southern California. California brown pelicans forage in Marina del Rey and neighboring waters and roost/rest throughout the harbor, on docks and other floating structures, and especially on the jetties of the harbor entrance. Roosting and loafing sites provide important habitat for breeding and non-breeding birds. Valuable roosting sites include offshore rocks, breakwaters, pilings, large buoys, boat decks, and jetties. No California brown pelicans inhabit the project site. Pelicans loaf during the daytime on public docks next to the launch ramp. Some pelicans also drift in the water by the public launch runways and near the Parcel 52 dock.

5. Environmentally Sensitive Habitat Areas

As defined in the Marina del Rey Land Use Plan, Environmentally sensitive habitat area (ESHA) means: "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development."[19]

The Marina del Rey Land Use Plan (a component of the Los Angeles County Local Coastal Program) does not contain any policies or standards for environmentally sensitive habitats at Marina del Rey. Chapter 5 in the Marina del Rey Land Use Plan devoted to ESHA has been deleted, as it is no longer applicable.[20] As detailed in the ESHA memo by Robert A Hamilton, the great blue heron is not designated by any governmental agency as rare, threatened, endangered, fully protected, or a species of special concern. In a memorandum dated December 19 2006, Dr. Jonna Engel of the California Coastal Commission argued that several stands of non-native trees that support multi-species heronries in Marina del Rey should be regarded as ESHA.

Great blue herons have used a stand of three cypresses near the Coast Guard station at the terminus of Fiji Way. However, the build-up of heron guano has killed one of these trees and seriously weakened another. When such trees die and topple over, it is likely that the birds simply move to other tall trees or other suitable nesting substrates in the local area. The propensity for great blue herons to kill their own nesting trees and to move around and occupy different nesting substrates in a given area argues against identifying as an ESHA every tree ever occupied by the species.

As detailed in Dr. Froke's Marine Bird Populations report, great blue herons do not nest on the project site. The closest active colony or individual nest site is a great blue heron nest at the western end of Fiji Way, approximately 2,800 feet southwest of Boat

[19] Marina del Rey LUP, Definitions. p i-5
[20] Marina del Rey LUP. p 5-1.

Central. The next closest colony (or subcolony) in the marina is 3,800 feet distant on the north side of the main channel (Froke 2008, p 40).

Dr. Froke's April 21, 2009 letter report supports the absence of evidence that great blue herons, black-crowned night herons, or any species of egret had roosted or nested in any on-site palm trees. Six visits were conducted between March 8 and April 16, 2009, in addition to the previous site visits reported in the other technical studies prepared for the Boat Central project that focused on the bird populations and impacts.

6. Ballona Wetlands

The Ballona Wetlands Ecological Reserve is located south of the project site, across Fiji Way. This area attracts a variety of species, some of which are listed as sensitive species by resource agencies or are federally listed as endangered. In the current General Plan, the County of Los Angeles designates Ballona Creek as a Significant Ecological Area (SEA). The Ballona Wetlands are the last undeveloped and restorable wetlands of their kind in Los Angeles County (California Resources Agency 2003). The Ballona Wetlands provide valuable habitat for threatened and endangered species. Additionally, the wetlands provide scenic open space within Los Angeles County.

In 2004 the State of California took title to the remaining 600 acres of the Ballona Wetlands. The Department of Fish and Game and the State Lands Commission own the land. The California Coastal Conservancy provides funding for planning and restoration of wetlands, and it also manages the work plan, budget, and schedule. A planning process was underway for the restoration of the Ballona Wetlands. The restoration process is currently on hold due to funding issues. Ballona Wetlands, the Restoration Feasibility Report (California Coastal Conservancy 2008), was completed in September 2008. This report presents five alternatives that have been developed for restoration of the wetlands. The Feasibility Report evaluates the five conceptual alternatives in terms of the project goals and objectives.

7. Tidal Culvert/Marina Ditch Channel

The California Coastal Conservancy published a Draft Ballona Wetland Existing Conditions Report (California Coastal Conservancy 2006). The report states: "Marina del Rey is directly connected to areas A and C through a culvert under Fiji Way that connects to Marina Ditch." In discussing the hydrology in the marina and the wetlands related to Marina Ditch, the report goes on to state: "In Area A, this straight, unlined, trapezoidal channel appears to have been cut to allow dewatering of dredged fill from Marina del Rey."

Rick Ware of Coastal Resources Management submitted a report dated May 8, 2009 detailing the results of a general survey of the tidal culvert between Basin H and the Ballona Wetlands and the shallow water channel (Marina Ditch) in Area A of the Ballona Wetlands. The purpose of the survey was to assess the current condition of the

culvert, marine life associated with the culvert, and the use of the culvert by marine and estuarine fishes as a pathway between Marina del Rey harbor and the Ballona Wetlands. The report is included in Appendix E of this EIR.

The culvert entrance in Basin H was surrounded by medium sized rock rip rap covered with silt. The depth at the base of the culvert was about 2.8 feet Mean Lower Low Water. Invasive brown algae were present on the rip rap. A variety of typical marine species were present in the area of the culvert, associated with the soft bottom benthic habitat seaward of the rip rap.

At the exit point of the culvert into the Ballona Wetlands area, the water depth was less than one foot. The flow was directed to the Marina Ditch, the shallow tidal channel running parallel to Fiji Way. At its widest, the channel is approximately 10 feet wide and approximately 1 foot deep. The report stated that, based on the vegetation located on the banks of the channel, no more than an additional one to two feet of tidal range was expected to occur in the channel. The report noted that the elevation of the culvert opening at the Ballona Wetlands appears to be higher than the culvert entrance in Basin H. It has been reported that the Marina Ditch may support California killifish and mosquitofish and potentially other species; however, the survival of these species is likely extremely limited due to the excessively shallow depths and water quality.

The Coastal Conservancy's Ballona Wetlands Restoration Project includes alternatives that incorporate the culvert that crosses Fiji Way in order to provide enhanced tidal flow into the restored wetlands. Improvements to the culvert will be necessary to increase the tidal range. The Boat Central project does not propose any improvements or changes to the existing culvert entrance in Basin H. The Tidal Culvert Field Survey report states that placement of piles near the culvert could result in a short-term increase in turbidity. However, the project would not impede flow of tidal waters into the Marina Ditch in Area A nor prohibit the passage of any species, eggs, or larvae that currently use the tidal culvert to gain entrance to the Marina Ditch. The additional shading from new dock placement would not change the amount of shading from what currently exists.

The report further notes that deepening the tidal channel within Area A would improve the tidal hydraulics within the culvert. Another alternative is to clean out fouling organisms and accumulated sediments to increase the volume of water that is transferred between Marina del Rey and the Marina Ditch. The report also suggests consideration of re-use of the pilings removed from the Boat Central site as fishery habitat or offshore reef projects.

5.3.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles does not have adopted thresholds of significance for biological resources. Thus, for purposes of this analysis, the applicable thresholds

listed in CEQA Guidelines will be used, in addition to other thresholds. As detailed in Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact with respect to biological resources if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and the Game or U.S. Fish and Wildlife Service.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

J.B. Froke's Assessment of Marine Biological Resources and the Marine Bird Populations report for the proposed project include additional thresholds of significance. The Marine Bird Populations report states that any effect the project would have on biological resources would be viewed as significant if it would:

- Substantially affect or threaten the ecology and welfare of a rare, threatened, endangered, or candidate animal species, or the habitat of such species;
- Substantially diminish or degrade the marine habitat of any marine plant or animal;
- Result in the notable net loss of a biotic community that is subject to local, state, and/or federal regulations or that is otherwise of very limited occurrence in the region; or

- Significantly interfere with the movement of any resident or migratory wild animal species.

The Assessment of Marine Biological Resources states that the project's effect on biological resources is considered to be significant if it would:

- Substantially affect a rare, threatened, endangered, or candidate plant or animal species, or the habitat of any such species;
- Substantially diminish or degrade the marine habitat of any marine plant or animal;
- Result in notable net loss of a biotic community that is subject to local, state, and/or federal regulations or that is otherwise of very limited occurrence in the region;
- Interfere substantially with the movement of any resident or migratory fish and wildlife species; or
- Conflict with adopted environmental policies, general plans, or regulatory policies of the community and State of California.

5.3.3 Project Impacts Prior to Mitigation

This section analyzes impacts of the project on plant species, marine/animal species, and sensitive species from the perspective of the thresholds listed above.

Short-term impacts are limited to project construction (such as pile driving and removal of existing docks). Long-term impacts are those associated with the operation and use of the site as a dry stack boat storage structure. The project will not interfere with any adopted local, state, or federal regulatory action or permits, such as a county Development Agreement, a Natural Community Conservation Plan, or an ESA Section 10 permit, none of which are in place.

1. Short-Term Impacts

This section analyzes the proposed construction methods, building materials, construction details, and project timing to determine the short-term impacts the proposed project will have on biological resources. The proposed project involves the removal of the existing dock system and installation of a new concrete floating dock system, pile driving, and installation of new utilities.

The existing docks and pilings on-site will be removed to make room for new floating docks and to allow for pilings to be placed to support the dock system. Sections of the existing dock and each of the pilings will be removed by crane and will be placed onto trucks for off-site disposal.

New floating dock sections will be delivered by truck and will be offloaded by crane into the water. A small skiff will be used to tow the docks to their final location.

Approximately 30 pre-stressed concrete 16-inch-square concrete pilings will be emplaced to support the dock system. New piles will be driven through openings in the floating docks to anchor them sufficiently. Pile driving will be accomplished with a crane located on a floating barge. The methodology of pile installation is a combination of jetting and driving. Piles will be jetted in place, through the floating dock system, and the last five feet of each guide pile will be driven to its final tip elevation. Piles will be removed using a crane and floating barge.

a. Marine Environment

1) Water Quality

The Assessment of Marine Biological Resources assessed the short-term impacts of the proposed project on each of the plant, marine/animal, bird, and sensitive species associated with the proposed project site. With regard to water quality effects on marine life, the Assessment of Marine Biological Resources identified that turbidity would impact water quality as a short-term construction-related impact of the proposed project. The discussion below provides additional information regarding impacts of reduced water quality from turbidity on species. Mitigation measures are recommended to reduce short-term water quality impacts from turbidity. Refer to Section 5.6, Hydrology and Water Quality (beginning on page 5-137 of this document) for a detailed analysis of water quality.

Pile installation using pile-driving and hydraulic setting methods will result in a temporary increase of suspended sediments – thus, a temporary reduction in submarine light levels. Another related effect is the potential decline of dissolved oxygen levels. In addition to turbidity caused by pile installation and removal, turbidity may increase as a result of prop-wash and the deployment/retrieval of anchors.

The Assessment of Marine Biological Resources discusses the potential short-term impacts of construction activities on marine mammals (namely harbor seals). As detailed in the report, harbor seals regularly visit or occupy Marina del Rey. Short-term, temporary effects of turbidity on mammals are a potential impact of the project.

These impacts are short term and can be mitigated to less than significant levels via mitigation measures and best management practices (BMPs). The levels of contamination in waters surrounding the project area are fully expected to dissipate and clear soon after construction has finished and demobilized. Therefore, the short-term effects of pile-driving would terminate.

2) Benthic Infauna

Short-term project construction will result in the removal of 14 existing piles, which will be replaced with 30 piles. This will result in turbidity in the water and will convert the area to an increased amount of hard-bottom habitat. An incremental change in the overall number of individuals of potentially affected benthic species – e.g., *Capitella*

capitata, *Mediomastus ambiseta*, *Pseudopolydora paucibranchiata* and *Prionospio heterobranchiata* – would not constitute an adverse effect on the native fauna or its segments therein. The project would not create short-term impacts on benthic infauna and macrofauna (Froke and Ware 2008, p 57). Any loss of species attached to docks and pilings and in the soft-bottom benthos will be short term, and the short-term effect would be less than significant on marine life.

3) Fill of Coastal Waters

The installation of 30 piles covering 50.7 square feet of marina bottom constitutes "fill of coastal waters" under the federal Clean Water Act. A U.S. Army Corps of Engineers Section 404 permit is required to authorize the fill. The applicant will be required to comply with conditions of that permit per Mitigation Measure BR-13. The short-term project construction impacts related to turbidity and habitat are analyzed in the Assessment of Marine Biological Resources in Appendix E and further discussed within this section.

b. Marine Plants

1) Invasive Algae

Caulerpa taxifolia is not present inside the project area, a fact that precludes potential spread of this species during construction (Froke and Ware 2008, p 57). There will be no short-term impacts regarding invasive algae because it is not present at the project site.

2) Brown Algae

Brown algae is present on the existing boat dock pilings and bulkhead at the project site. Short-term losses of this invasive species and the animals that inhabit it would have a less-than-significant impact due to the abundance of the algae adjacent to the project areas and throughout Marina del Rey (Froke and Ware 2008, p 46).

3) Eelgrass

Eelgrass is not present in the project area. There is no eelgrass at the project site; therefore, there will be no short-term impacts on eelgrass related to water quality, loss of habitat through pile installation/removal, or shading or other active element (Froke and Ware 2008, p 57).

4) Ditchgrass

No ditchgrass was found at the project site during the Eelgrass and Invasive Algae Survey (Ware 2007). There will be no short-term impacts regarding ditchgrass, because it is not present at the project site.

c. Marine Fish and Wildlife

1) Mammals

Pinnipeds may occasionally be found within the harbor marina basins, including Basin H. Sometimes these animals will follow the sport fishing boats back to the docks looking for a handout, or they will be moving from area to area in the harbor. The likelihood of marine mammals, particularly pinnipeds (sea lions and harbor seals) to be within the project-area is low; only individuals would possibly be present during operations.

In the short term, the amount of turbidity created from project operations will not be substantially different than existing turbidity in the area that is created from the operation of the launch ramp, charter boat operations, and other commercial operations in the basin. Short-term increases will result from work barges and/or small work vessels, and the removal/replacement of rip rap and pilings. Generated turbidity will be dissipated within one to several tidal changes, or on a daily basis while construction occurs. The avoidance of the area by pinnipeds will be short term and will not reduce the amount of foraging habitat for pinnipeds in the long term. This is comparable to natural changes in reduction of foraging habitat quality during storm events that increase turbidity. Pinnipeds will alter their foraging behavior and find clearer waters to forage in, since they are sight-feeders.

Although pinniped behavior (e.g., foraging and swimming) may be modified in the short term (days or weeks), these animals will move to other areas in the harbor that are actually more productive foraging habitat and less used by the public. Basin H is a high-public-use/boat-use basin used on a daily basis that is less suited for pinnipeds compared to other marina basins.

Short-term exposure of mammals, and particularly harbor seals, to turbidity would be less than significant because of the animals' natural avoidance of turbid water. Harbor seals and other marine mammals would also avoid the project area during construction in response to spontaneous underwater noises. Long-term operation of the project will have no impact on marina mammals, and no mitigation is recommended.

2) Marine Fish

Changes in the turbidity of water can have direct and indirect effects on fish. High turbidity levels can directly affect fish growth and survival. Turbidity also limits fish vision, which can have an impact on its social behavior, foraging, and its ability to avoid predators. The project could potentially impact marine fish in the short term (Ware 2007).

3) Marine Birds

The Marine Bird Populations report by J.B. Froke analyzes how the bird species of primary interest could be impacted by the project. The primary bird species are

California brown pelicans, double-crested cormorants, great blue herons, great egrets, snowy egrets, black-crowned night herons, and California least terns. As detailed in the Marine Bird Populations report, the following are circumstances by which the primary bird species could be impacted by the project:

1. Proximity: The proximity of humans to birds during construction
2. Noise: Mechanical noise from equipment may encroach during construction
3. Shade: Diurnal effects of shadow cast by the new structure onto the local area
4. Turbidity: Marine construction activities may increase local turbidity levels
5. Collision: Flying birds may collide with the new building

Of the five potential disturbance circumstances, three are identified as being construction related and are therefore temporary impacts: proximity, noise, and turbidity.

1. **Proximity** – The Marine Bird Populations report discusses the short-term potential disturbance circumstance of humans' proximity to species during project construction. Animals' tolerance of humans varies according to the species, its surroundings, and the mode of travel by which humans approach (e.g., on foot, in a vehicle). The flushing distance for an animal is how close one can get to an animal before it flushes. Double-crested cormorants and herons potentially would be affected by human proximity during project demolition/construction while sunning, and the California brown pelican would potentially be affected by human proximity during project demolition/construction while loafing. As detailed in the Marine Bird Populations report, the impact to the California brown pelican, double-crested cormorant, herons, and California least tern from humans' proximity would be a low impact that is temporary and non-significant.
2. **Noise** – Operational noise of any significance (above normal, ambient levels) is not expected outside of the boat central structure except that operation of the lift crane may be audible at a higher dB range. The recommended maximum level for the marina is 80 to 85 dB. As noted in the Noise Analysis (Section 5.8), noise levels of up to 85 dB will occur at a distance of 12 feet. The nearest area of concern, the Ballona Wetlands, will be buffered since the dry stack boat storage structure is closed on three sides. Very importantly, operation of the crane and production of "noise" will immediately become routine and relatively consistent in terms of sounds and moves of the launching business. The regularity is highly relevant with respect to local birdlife, as most marine species that are now inside Basin H are familiar with the operations and noise associated with

docking, launching, and running underway, and Boat Central will not create or influence a change in those factors.

As a population, birds that live in Marina del Rey and surrounding areas, whether to hunt, breed, or both, are more tolerant of and habituated to the busy action and movement of people in the proximity of the birds' nest trees than would be birds that inhabit quieter and wilder landscapes. Guidelines that are being promulgated by Los Angeles County state that the maximum ambient SPL (sound pressure level) that would be tolerated by nesting herons on a constant basis is 85 decibels.

In a recent analysis, monitors at Burton Chace Park, which is directly opposite the Boat Center parcel, reported that nesting black-crowned night herons did not appear stressed and did not leave their nests in low overhanging trees while a concrete breaker was operating within 20 feet of the nest. Black-crowned night herons are accustomed to and tolerant of ongoing ground activity (use of the park) that is regularized by the constant use of the park by visitors, children, and dogs.

Marine mammals heavily rely on sound to communicate, to exploit and investigate the environment, to find prey, and to avoid obstacles. Short-term, construction-generated sounds, such as from pile driving, would not impact or significantly affect underwater animals inside and near the project site. This is because the mechanical and percussive sounds produced by pile driving develop at a lower frequency and duration. The immediate impact (e.g., the first driven pile in the morning) on birds and mammals might be to startle them, but as the cyclical and repetitious sounds are linked to periods of visible construction activity, the combined cues would send the animals out of the affected area. The effect of underwater construction sounds on marine mammals – and birds and fishes by similar circumstances – would be transient and short term during the construction period, and potential contrasts to ambient sound levels would neither harm nor significantly affect the animals.

While sunning, double-crested cormorants and herons potentially would be affected by noise during project demolition/construction and while loafing, the California brown pelican would potentially be affected by noise during project demolition/construction. As detailed in the Marine Bird Populations report, the impact to California brown pelicans, double-crested cormorants, herons, and California least terns from noise would be temporary and not significant.

3. **Turbidity** – The project has the potential to result in a short-term increase in turbidity due to project construction. As detailed in the Marine Bird Populations report, the impact to the California brown pelican, the double-crested cormorant, and the California least tern is of medium level of notice but temporary and non-significant. The impact of turbidity on

herons is of low notice, temporary, and non-significant. None of the primary or secondary birds would be impacted or adversely affected to a significant degree by the predictable actions of the project. When considering proximity, noise and turbidity, it is turbidity that ranked as being a medium level of notice for three of the primary species of birds (California brown pelican, double-crested cormorant, California least tern). Turbidity caused by project construction could potentially diminish/degrade the marine birds' habitat.

Potentially elevated turbidity in surrounding waters would degrade foraging conditions for diving and plunging predators, including pelicans, cormorants, and terns; also grebes and marine ducks, including mergansers. Wading species such as great blue herons, snowy egrets, and black-crowned night herons also would be vulnerable to the effects of turbidity in nearshore and dock waters.

The background for turbidity readings is optimally the level of naturally occurring turbidity before the project is started. The background data are necessary to predict and evaluate the sediment sources from construction activities. The bottom of the Marina del Rey harbor basin is composed of sand and mud. Under windy conditions, vertical mixing brings fine sediments, suspended near the bottom, up into surface waters. Typical surf outside the harbor also keeps fine sediment particles suspended in layers above the bottom. All identified threat factors that potentially would harm or hamper the identified bird species, including one endangered species, and/or their ecological communities inside Marina del Rey, can be substantially reduced or mitigated.

The increased amount of potential turbidity – e.g., from prop wash – will be occasional and limited in size and scale. The potential source for prop wash will be boats that are arriving (for dry storage) or leaving the site (relaunched); and maintenance activities such as cleaning and engine testing will be not be made in the marina waters, but rather in the facility with controlled runoff. The day boats that regularly use the existing docs, for loading and unloading passengers and minor deck washing, do not stir up the bottom sediments and create virtually no visible turbidity – clarity remains the same whether the boats are moving (prop on) or idling (prop off).[21] It seems unlikely that the amount of turbidity created from small craft coming and going from Boat Central will be of a nature and scale any greater than elsewhere in the harbor, e.g., near boatwrights and fuel docks.

Vessel propeller wash will not likely result in any increase in turbidity over the levels currently observed created by deeper-draft charter boat operations or shallow-draft recreational vessels in Basin H. The basin is

[21] The statement on low turbidity related to the day boats is based on more than 30 single-day observations of the birds and habitat conditions.

sufficiently deep to allow for shallow-draft and deeper-draft vessels to operate without increases in turbidity. Only at extreme low tides may deeper-draft commercial vessel prop wash have a potential to increase turbidity. Because the increases in boat use at Boat Central will be related to (1) smaller, shallow-draft recreational vessels and (2) speed limits in the basin that are "no wake" and/or less than 5 miles per hour, the potential for any increase in turbidity over what occurs currently is very low. Best Management Practices (BMPs) can be posted onsite and in informational brochures to remind skippers not to accelerate quickly, to avoid shallow sections of the basins, and to follow safe boating guidelines that will prevent harm to wildlife.

Thus, mitigation measures and BMPs have been included to reduce potential impacts from project implementation.

a) Double-Crested Cormorants

While drying on the public launch docks, double-crested cormorants could be disturbed by construction workers' presence on land and in the water. As a result, the birds will swim and forage less often in the project area than they do at the present, which is nominal. The species could potentially be impacted by turbidity in the water during project construction, if mitigation measures are not implemented to reduce turbidity.

b) Great Blue Herons

Great blue herons infrequently use the public docks for resting and hunting; thus, they would be minimally affected by project construction (movements of construction workers) and by diminished foraging quality associated with elevated turbidity. As noted previously, no great blue herons have been observed roosting or nesting on the project site.

c) Great Egrets/Snowy Egrets

Great egrets infrequently use the public docks for resting and hunting and, as a result, would be minimally affected by project construction. Snowy egrets would lose an opportunistic food source as a result of day-boat access being reduced or eliminated near the project site; however, it is very likely that the egrets would follow the day-boat traffic. As noted previously, no egrets of any type have been observed roosting or nesting on the project site.

d) Black-Crowned Night Herons

The effect of construction on black-crowned night herons is more speculative due to the lack of data on the species' nocturnal use the project area. The removal of the Parcel 52 docks could mean the loss (or relocation) of an existing foraging platform for the night herons. However, the project will replace the existing docks with new docks

at a length ratio of approximately four to one. Night heron use would resume, if not be enhanced by the additional platform length. As noted previously, no black-crowned night herons have been observed roosting or nesting on the project site.

e) Western Grebes and Eared Grebes

Grebes are swimming and diving predators and, as such, they will avoid the immediate project vicinity during waterside and in-water construction activities. This species has the potential to be adversely affected by in-water project construction if turbidity levels were to increase temporarily.

f) Heermann's Gulls and Ring-Billed Gulls

Project construction may result in construction litter, which would attract scavenging gulls, but the litter is not viewed as a beneficial food source. The gulls may avoid the site during construction but will likely return during short breaks in construction and permanently after project completion.

g) Red-Breasted Mergansers

The red-breasted merganser will likely avoid the project area during construction if noise and water disturbances occur. The effectiveness of the bird's foraging would be temporarily impacted by potentially elevated turbidity, which would encourage the birds to vacate the affected waters during construction periods. The loss of pilings would possibly reduce available foraging features for the birds but at a level that is de minimis.

d. Sensitive Species

1) Tidewater Goby

The tidewater goby does not occur inside Marina del Rey, and as a consequence, no impacts to this species will occur in the short term as a result of the project (Froke and Ware 2008, p 58).

2) California Halibut

Juvenile halibut are present in Marina del Rey; however, the presence of the species within Basin H is unlikely. If young halibut are in/near the project area during construction/pile installation, it is expected that they would swim to quieter areas outside the impact zone. No halibut mortality from construction of the dock facility would occur in detriment of the species (Froke and Ware 2008, p 58). However, due to its potential presence in the project area during construction, the species may be impacted by short-term project construction.

3) California Least Tern

California least terns forage in and around Marina del Rey; however, none were found to inhabit the project site. The California least tern relies on sight to catch prey. Turbidity caused by project construction has the potential to negatively impact foraging conditions for this species. Turbidity in the water provides more visual cover for the bird's prey (fish larvae and crustaceans) and hampers the bird's hunting capabilities and success due to their dependence on visual contact for hunting prey.

4) California Brown Pelican

California brown pelicans will likely use the public launch docks with less frequency and for shorter periods of time during project construction. The birds will leave the project vicinity during waterside demolition and construction. The few pelicans that use the site for loafing only will intermittently avoid the site during project construction. Use of the boat launch docks will resume to pre-project levels after the completion of construction. Based on existing scientific evidence, the approach of humans on land will elicit a greater escape response from loafing pelicans than approach from humans by watercraft. It is anticipated that infrequent project-related access by workers to the public launch will occur during the course of launching and landing construction craft.

The California brown pelicans could be impacted by highly turbid waters due to the fact that they are aerial searchers that use their sight to catch prey. Thus, their ability to see into the water is crucial to their hunting success. If elevated turbidity occurs during project construction and it is left unmitigated or unabated, it would result in significant reduction of avian habitat values. As previously noted, this species has recently been delisted as threatened or endangered.

2. Long-Term Impacts on Species

This section analyzes the proposed project elements and how the completed project and its operation could impact biological resources.

a. Marine Environment

1) Water Quality

The Marine Biological Resources report assessed the long-term impacts of the proposed project on each of the plant, marine/animal, bird, and sensitive species associated with the proposed project site. With regard to water quality effects on marine life, the Marine Biological Resources report did not identify any long-term impact to water quality. As detailed in the Assessment of Marine Biological Resources, the dry stack storage and maintenance of boats would reduce the contamination risk by removing and storing boats out of the water. Thus, marine life is not expected to be impacted in the long term by the proposed project. Refer to Section 5.6, Hydrology

and Water Quality (beginning on page 5-137 of this document) for a detailed analysis of water quality.

Potential long-term effects of pile driving would be obviated and altogether reduced to a less than significant degree. Furthermore, the long-term operation of the Boat Central facility will not generate appreciable negative water quality, principally because it is a dry storage and landside maintenance program, and would not generate harmful impacts into the long-term. There are no actions related to the operation of the project that will cause a significant level of turbidity.

2) Benthic Infauna

As part of the proposed project, a new dock structure will be built. Thirty 16-inch guide piles will replace 14 existing piles. The increase in the number of guide piles will result in a net decrease of approximately 31 square feet of soft bottom benthic habitat. The soft bottom habitat will be replaced by hard substrate in the form of cement structures that, in turn, will support organisms that are adapted to hard substrate such as those currently found on the existing rock rip rap and piles in the project area.

There will be no long-term effect on species and their habitats from the dock improvement project. Species such as mussels that will be removed along with old pilings and docks will soon recolonize the new structures once they are constructed. Recolonization will occur over a period of a few months to a few years (Froke and Ware 2008, p 46).

Conversion to an increased amount of hard-bottom habitat and the consequent transition of the original biota to adapted species in the 31 additional square feet of the project site and Basin H would not be considered a significant biological effect of the project. An incremental change in the overall number of individuals of potentially affected benthic species – e.g., *Capitella capitata*, *Mediomastus ambiseta*, *Pseudopolydora paucibranchiata* and *Prionospio heterobranchiata* – would not constitute an adverse effect on the native fauna or its segments therein. The project would not create long-term impacts on benthic infauna and macrofauna (Froke and Ware 2008, p 57).

3) Fill of Coastal Waters

The Assessment of Marine Biological Resources determined that the additional 31.2 square feet of bottom surface coverage would not result in a significant biological impact. In addition, compliance with conditions of the U.S. Army Corps of Engineers Section 404 Permit will further ensure that no impacts will occur due to fill of coastal waters. No long-term impacts will result due to the placement of thirty 16-inch piles to support the proposed project dock system.

b. Marine Plants

The plant life on the land portion of the site will be impacted because the mature palm trees and the grassy area will be permanently removed as a result of the project. However, the project will be landscaped and trees will be placed on-site, which will compensate for the loss of plant life currently on-site.

1) Invasive Algae

There will be no long-term impacts from invasive algae (*Caulerpa taxifolia),* because no stands of invasive algae were located in the project area, nor has any been observed within the Marina del Rey harbor ecosystem to date (Froke and Ware 2008, p 43).

2) Brown Algae

This invasive non-native species is common in Marina del Rey and is present on the existing boat dock pilings and bulkhead at the project site. No long-term significant impacts on this species will occur, because there is an abundance of the algae adjacent to the project site and throughout the marina. Once the new dock structure is constructed, it will, without a doubt, recolonize the habitat (Froke and Ware 2008, p 46).

3) Eelgrass

Eelgrass is not present in the project area. There is no eelgrass at the project site; therefore, there will be no long-term impacts on eelgrass related to water quality, loss of habitat through pile installation/removal, shading, or other active element (Froke and Ware 2008, p 57).

4) Ditchgrass

No ditchgrass was found at the project site during the Eelgrass and Invasive Algae Survey and Impact Assessment. There will be no long-term impacts regarding ditchgrass, because it is not present at the project site.

c. Marine Fish and Wildlife

1) Marine Mammals

The Assessment of Marine Biological Resources states that long-term actions and effects on local marine mammals are not expected to occur post-construction (Froke and Ware 2008, p 52). Once project construction is complete, no long-term impacts to mammal species will occur, because there are no actions related to the operation of the project that will cause a significant level of turbidity.

2) Marine Fish

Water-column fishes, e.g., *Embiotoca jacksoni*, will not be adversely affected by the long-term operation of the new structures (Froke and Ware 2008, p 46). No long-term effect on local fish, following construction, and during operations, has been identified, because identified impacts of potential significance are tied to turbidity increases during construction, whereas the circumstances will not occur following project completion (Froke and Ware 2008, p 53). There would be no long-term impact to fish and wildlife from expected noise, because sounds from project operation will be consistent with ambient noise levels inside Basin H (Froke and Ware 2008, p 56).

3) Marine Birds

As detailed in the Marine Bird Populations report, the following five potential disturbance circumstances were identified: proximity, noise, shade, turbidity and collision. The long-term impacts of shade and collision were determined not to significantly impact the bird species. The impact evaluation identifies only temporary or transient impacts to the primary bird species (Froke 2008, p 47). There are no significant long-term project impacts to bird species. Only the temporary impacts of proximity, noise and turbidity were identified in the Marine Bird Populations report, with turbidity producing a moderate level of impact.

d. Noise

As detailed in the Assessment of Marine Biological Resources, there would be no long-term impact to fish and wildlife from expected noise during operations the proposed project because animals would readily move from noise-affected, bothersome sites during emanation and because sounds from operations factors (boat motors) would be consistent with ambient noise levels inside Basin H (Froke and Ware 2008, p 56). Additionally, landside and waterside construction would generate the types and levels of sound that resemble those produced by ongoing marina and boat operations. As construction is completed and project operations are underway, the threat of impact from new and loud sounds will disappear and make way to regular ongoing sounds and rhythms of the harbor basin and dock environments (Froke 2008, p 40-41).

e. Wind

Appendix A of the Wind Impact Assessment (Appendix E of this EIR) analyzed the effect of the proposed dry stack boat storage structure on surface winds used by local birds in Marina del Rey.

The report analyzed changes to surface winds on open water, changes to ridge soaring conditions downwind and upwind of the structure, changes to local thermal soaring conditions, and changes to flight efficiency due to turbulence. As detailed in the report, changes to surface winds at Marina del Rey are unlikely to have a measurable negative effect on local birds. The predicted changes in wind speed/direction resulting from development of the proposed boat storage facility are unlikely to significantly

affect ridge-soaring birds using air flows directed upwards along the downwind shore of the channel. The report also described how several species of birds observed at Marina del Rey will likely occasionally make use of the lift created by the proposed boat storage facility. The author of the wind study stated that the addition or removal of a single building is unlikely to result in a measurable change to thermal frequency, size or distribution. The report also states that turbulence created by the proposed structure is unlikely to result in reduced aerodynamic efficiency of birds flying at Marina del Rey.

Although the project would result in changes to local winds in the altitudes and areas utilized by birds, due to the relatively minor nature of the changes expected, the large variety of flying speeds of birds, the different flight strategies used by birds, and the small percentage where measurable impacts will be observable, the proposed project will not result in any major changes to the birds' utilization of surface winds at Marina del Rey.

f. Shade and Shadow

The existing 1,690-square-foot dock and ramp system will be replaced by a 6,500-square-foot ramp and dock system. This will result in the shading of an additional 5,569 square feet of open water habitat in Basin H. AC Martin Partners conducted a study of the year-round potential of shade and shadow effects of the proposed project. Water coverage by shadows occurs twice during the Winter Solstice (in the morning and afternoon). The effect of shadows on the biological resources of the marina would range from nil to minimal. There would be an increase in shading based on the increase in dock square footage. However, as detailed in the Assessment of Marine Biological Resources, the effect of shading on present organisms is positive – and may become more positive – due to organisms' attraction/adjustment to shade as a constant element of their habitat (Froke and Ware 2008, p 55).

As described in the Assessment of Marine Biological Resources, "Transient shadows will have a less-than-significant effect on biological productivity of the marine community that is within approximately 0 to 340 feet of the bulkhead facing Marina del Rey. The shadow influence will be transitional throughout the year in terms of the amount of time and area of marine resources that will be affected…" (Froke and Ware 2008, p 54). Organisms living on the fixed dimensional sites in the marina (e.g., faces of bulkheads, riprap, and undersides of pilings) are naturally adapted to the constant and/or moving shadows and shade characteristic of their habitat.

Shadow-cast is a short-term changing factor that is less significant ecologically than other cultural and natural factors that affect light fields and bioactive irradiance values in open water. Currently, the area rip rap habitat next to the bulkhead is shaded much of the time from the existing docks and the bulkhead. Limited amounts of algae, and invertebrates are therefore present (Ware 2007) and confined to benthic diatom mat, mats of green algae (*Ulva* spp.), and invasive seaweed (*Sargassum muticum*). Species of invertebrates that are grazers (e.g., limpets) in the project area will feed on the

benthic diatom and green algal community, and move to areas where their food base lives. Fishes that forage on these invertebrates will then follow their food source, the subtidal and intertidal invertebrates that forage on the algal community.

While the project increases shading from boat docks and building shadows, the project will offset shadowing effects by using translucent polycarbonate as approximately 20% of the architectural cladding. This material has several benefits; foremost is its ability to allow daylight to penetrate through the structure to the water's surface. These structures, by their nature, will allow for additional light penetration. Such surfaces that increase light penetration are recommended by the U.S. Army Corps of Engineers to offset shading impacts in marine environments for seagrass communities. Although there is no seagrass in the project area, the use of materials that enhance underwater light levels will assist to offset any shading effects to other submerged aquatic vegetation and herbivorous invertebrates and fishes. Piles set next to these platforms will benefit from an increase in light penetration from the adjacent docks, which will likely increase plant life on the piles, which will in turn create additional foraging habit for invertebrate grazers. Experimental studies conducted by the St. Johns River Water Management District using translucent dock panels in the St. John River in Florida indicated that translucent panels allow about 56 percent of ambient light compared to other types of materials (e.g., prisms).

The Marine Bird Populations report states that the shade and shadow study prepared by AC Martin Partners sufficiently demonstrates the de minimis period and extent of shading and shadow that would be caused by project development. The analysis of the shade and shadow study supports a conclusion of no potential impact on the study species, including the species' infrequent/transitory occupation of shaded areas.

g. Collisions

The Marine Bird Populations report identified *collision* as a potential disturbance circumstance for the project. *Collision* refers to the potential for flying birds to collide with glass and glass-like surfaces of reflective and non-reflective buildings. The consensus by researchers, conservation groups, architects, and developers is that it would be beneficial to mitigate transparent (or reflective) glass use with either translucent glass or compounded non-transparent materials. Consistent with California Coastal Commission standards for bird-safe buildings, the dry stack boat storage structure will be constructed using a translucent polycarbonate or similar material that is not fully transparent or reflective. Therefore, collision is not identified as a significant long-term impact to bird species, because the translucent polycarbonate or similar material will appear to birds as a planar surface and will not reflect nearby landscaping or natural features, thereby preventing them from mistakenly flying into the building.

h. Artificial Night Lighting

Artificial night lighting was not identified as a potentially significant impact to species in either the Marine Bird Populations report (Froke 2008) or the Assessment of Marine Biological Resources (Froke and Ware 2008). Mitigation measures to preserve darkness include "eliminating unnecessary illumination, reducing light intensity, and minimizing the skyward and seaward projection of artificial light" (Rich and Longcore 2005, p 108). As detailed below, the proposed project does not use any unnecessary lighting, light intensity is only at levels needs for project operation, and skyward project of light is minimized through project design. At night the dry stack boat storage structure will be lighted with 40 footcandles of down light, which will give the structure a soft glow. The storage structure and the parking lot will be lighted at minimum legal levels using the lowest levels of light that are safe for staff and operation of the facility. Cutoff fixtures will be used in the parking lot and on the office/boatwright/lifeguard building to direct light down and away from the night sky.

Artificial night lighting is not anticipated to impact species, because night lighting from the project will be reduced by the incorporation of cutoff fixtures on-site and low light levels (40 footcandles of down light) in the storage structure.

3. Sensitive Species

a. Tidewater Goby

The tidewater goby does not occur inside Marina del Rey, and as a consequence, no long-term impacts to this species will occur as a result of the project (Froke and Ware 2008, p 58).

b. California Halibut

Juvenile halibut are present inside Marina del Rey, but the presence of this species within Basin H is unlikely. No mortality or long-term impacts as a result of operation of the dock facility are anticipated on this species. No long-term impacts to halibut resources will occur as a result of the project because of the species' local absence and its aversion to disturbance (Froke and Ware 2008, p 58).

c. California Least Tern and California Brown Pelican

The long-term impacts of shade and collision were determined not to significantly impact the bird species. As detailed above, no long-term impacts to these bird species were identified in Marine Bird Populations report.

4. Tidal Culvert/Marina Ditch Channel

The Tidal Culvert Field Survey Results found that the proposed project would not result in short-term or long-term impacts to the tidal culvert, the Marina Ditch, or the surveyed marine life. Pile placement near the tidal culvert entrance in Basin H could

potentially cause a short-term increase in turbidity in the vicinity of the culvert. The impact would not result in the loss of marine plants or organisms. Shading from reconstructed dock structures would not be expected to change the amount of shading from what currently exists at the site. The project would not impede the flow of tidal waters into the Marina Ditch in Area A nor inhibit the passage of any species, eggs or larvae that currently use the tidal culvert to gain entrance to the Marina Ditch. Therefore, no impacts to the tidal culvert or the Marina Ditch channel would result from implementation of the proposed project.

5.3.4 Mitigation Measures

To prevent escaped particulates and associated debris, floating or suspended, from threatening or harming ecological communities and their biotic constituents, the project applicant shall ensure readiness to contain and mitigate the effects of potentially elevated turbidity and debris.

Mitigation Measures BR-1 through BR-5 address water quality impacts on biological resources.

BR-1 Prior to project initiation, the project applicant shall hire marine contractors that are professionally capable to employ the methods and materials necessary to contain contaminants within an aquatic work area, and to mitigate the potential escape of contamination to areas outside project boundaries.

BR-2 During landside construction, the site facilities manager shall ensure that contractors are prepared within one hour to distribute (stored) straw waddles around the work area in the event that unexpected runoff, construction debris, and contaminated flows occur.

BR-3 During project construction the site facilities manager shall ensure that debris and trash are disposed of in covered trash containers on land and on the work barge and that the debris and trash are disposed of at the end of construction each day.

BR-4 During project construction the site facilities manager shall prohibit and preclude the discharge of any hazardous materials into Marina del Rey waters.

BR-5 During project construction, the site facilities manager shall deploy adequate silt curtains and booms around the work barge and pile removal and emplacement operations, to minimize the spread of turbid waters, sediments, and floating debris outside the project boundaries.

Mitigation Measures BR-6 through BR-13 will ensure that construction activities do not permanently or significantly impact the marine environment and biota.

BR-6 During project construction, the site facilities manager shall ensure that placement and storage of construction materials, equipment, debris, and waste products will be at locations that are not subject to wave, wind, or rain erosion and runoff dispersion.

BR-7 After completion of construction, applicant shall ensure that any and all construction material shall be removed from the site within ten days and relocated to or disposed of at an appropriate off-site location.

BR-8 During project construction the site facilities manager shall ensure that placement or storage of machinery and construction materials not essential to making project improvements shall be prohibited at all times in subtidal and intertidal zones.

BR-9 During project construction the site facilities manager shall ensure that divers will be deployed to recover non-buoyant debris discharged into coastal/marina waters as soon as possible after the loss.

BR-10 Throughout all phases of the project, the site facilities manager shall ensure that sand bags will be placed landside around drainage inlets to prevent runoff and sediment transport into the surrounding harbor.

BR-11 Prior to commencement of project construction, the applicant shall ensure that at least one pre-construction meeting is held between the developer (or applicant's representative), the project's general contractor, and the ecological monitor. This meeting shall be held for the purposes of reviewing and agreeing to procedural guidelines and best management practices to protect biological resources.

BR-12 Throughout the construction process the site facilities manager shall dispose of all demolition and construction debris at an appropriate, off-site, and secure location.

BR-13 During construction, project applicant shall be required to comply with all conditions of the U.S. Army Corps of Engineers Section 404 permit related to fill of coastal waters.

Mitigation Measures BR-14 through BR-18 address potential impacts on marine birds in Marina del Rey.

BR-14 Throughout the construction process the site facilities manager shall maintain on-site an operational fitted and rigged outfit of silt curtains and booms to contain turbid conditions and construction-related floating debris.

BR-15 Throughout the construction process the site facilities manager shall ensure that floating booms will be used to contain debris discharged into coastal waters. Any debris discharged shall be removed as soon as possible but no later than the end of each day of construction.

BR-16 Throughout the construction process the site facilities manager shall ensure that erosion control/sedimentation best management practices shall be used to control sedimentation impacts to coastal waters during construction. During construction, the site facilities manager shall ensure that sand bags are placed around drainage inlets to prevent runoff and sediment transport into Marina del Rey.

BR-17 Prior to construction, the project applicant shall ensure that a pre-construction eelgrass survey is conducted. Upon project completion, the project applicant shall ensure that a post-construction eelgrass survey is conducted. The project applicant shall ensure that the surveys include the project area for the purpose of determining whether eelgrass is present. Those that conduct the surveys shall ensure that the surveys are consistent with the Southern California Eelgrass Mitigation Policy (SCEMP) and that reports are submitted to the appropriate resource agencies.

BR-18 Prior to project construction, the project applicant shall ensure that a pre-construction *Caulerpa taxifolia* survey is conducted 30 to 90 days prior to construction efforts. After project completion, the project applicant shall ensure that a post-construction *Caulerpa taxifolia* survey is conducted within 30 to 90 days after project completion. Those who conduct the surveys shall ensure that the surveys are consistent with the Southern California Eelgrass Mitigation Policy.

5.3.5 Level of Significance after Mitigation

Turbidity was identified as a short-term impact of the proposed project. Silt curtains and booms will be utilized to minimize impacts of project construction. The effects of short-term exposure to turbidity on the marine environment would be less than significant through incorporation of mitigation measures. Mitigation measures BR-17 and BR-18, requiring pre- and post-construction surveys, will reduce impacts to marine plants to a less than significant level. The potential and temporary impact to marine fish and wildlife from the project would be less than significant because the natural response of mammals, fish, and birds affected by turbid conditions in Basin H would be to relocate to an unaffected location. With the ability of the marine birds to leave affected waters in or near the construction zone, they will not be significantly impacted by project construction. Mitigation requiring the deployment of turbidity curtains and sediment booms will reduce impacts on marine fish and wildlife to a less than significant level.

As detailed in the Marine Bird Populations report, none of the primary or secondary birds would be impacted or adversely affected to a significant degree by the predictable actions of the proposed project (Froke 2008, p 51). The report concludes that all identified threat factors that potentially would harm or hamper the identified

bird species can be substantially reduced to a less than significant level through implementation of the mitigation measures identified above (Froke 2008, p 57).

Water-column fishes, such as *Embiotoca jacksoni*, will not be adversely affected by project construction. Fish will avoid the construction zone because of potentially increased turbidity, vessel movements, and noise. Additionally, some species may be attracted to biofouling materials that fall off the original docks and pilings as they are removed. Implementing mitigation measures will minimize impacts to California halibut, in the event halibut appear in the general vicinity of construction (Froke and Ware 2008, p 61). Project construction is not anticipated to cause fish mortality. The mitigation measures will reduce turbidity to a less than significant level, and no impacts on sensitive species will occur.

Through incorporation of mitigation measures, all impacts on Biological Resources will be reduced to a level of insignificance.

5.3.6 Cumulative Impacts

The project, taken with the rest of the projects within the marina, has the potential to create short-term turbid water conditions, which can impact marine animal species. There are at least seven known approved or pending projects – Fisherman's Village, the Shores, Woodfin, Holiday Harbor, Bar Harbor (approved), Legacy, and the Fuel Dock (under construction) –that have the potential to create short-term turbid water conditions. Basins B, C and D, along with the main channel, will be affected during the construction of these projects. While these projects are on different schedules, there is a chance that the Boat Central project, taken with the other known projects, could incrementally contribute to water turbidity and result in a cumulative impact on biological resources. The County would be required to adopt a Statement of Overriding Considerations for any significant and unavoidable impacts that cannot be reduced through mitigation.

5.4 Geology and Soils

This section analyzes the geology, soils, and seismicity of the project site, identifies on-site soil conditions that have the potential to impact the proposed project, and recommends mitigation measures to reduce the significance of such impacts to an acceptable level. This section summarizes the findings of the Report of Geotechnical Investigation, Proposed Boat Storage Facility prepared by Van Beveren and Butelo, Inc. dated February 25, 2008, for the project site and a recommendations letter dated December 10, 2008 written by Van Beveren and Butelo, Inc. to address the vibrations caused by pile driving. These are included as Appendix F of this EIR. The Marina del Rey Local Coastal Program (LCP) was also referred to. The geotechnical report, recommendations letter, and Marina del Rey LCP are incorporated by reference into this section of the EIR pursuant to CEQA Guidelines §15150. Where a document is incorporated by reference, its pertinent sections will be briefly summarized and referenced in this section of the EIR.

The purpose of the geotechnical investigation was to determine the geologic setting of the site and the presence of any geologic hazards for incorporation into the EIR, to determine the geotechnical conditions to provide data for design of foundations, walls below grade, slabs on grade, paving, and grading. The existing soil and groundwater conditions at the site were investigated, including the corrosion potential of the soils. Additionally, the geotechnical investigation includes several recommendations, which have been included as mitigation measures.

5.4.1 Existing Setting

The site is located within the Los Angeles coastal plain, which is the westernmost portion of California's Los Angeles Basin Structural and Geomorphic province. The Los Angeles Basin is bounded to the north by the Santa Monica Mountains and Elysian Hills, to the east by the Puente Hills, to the west by the Palos Verdes Peninsula and Pacific Ocean, and to the south by the Santa Ana Mountains and San Joaquin Hills. The project site is relatively flat and is not in an area of high slope instability. The topography of the site ranges from a height of 15 feet above sea level at the southern portion of the site, sloping down to a height of 7 feet above sea level at the northern portion of the site, adjacent to the marina.

1. Geologic Conditions

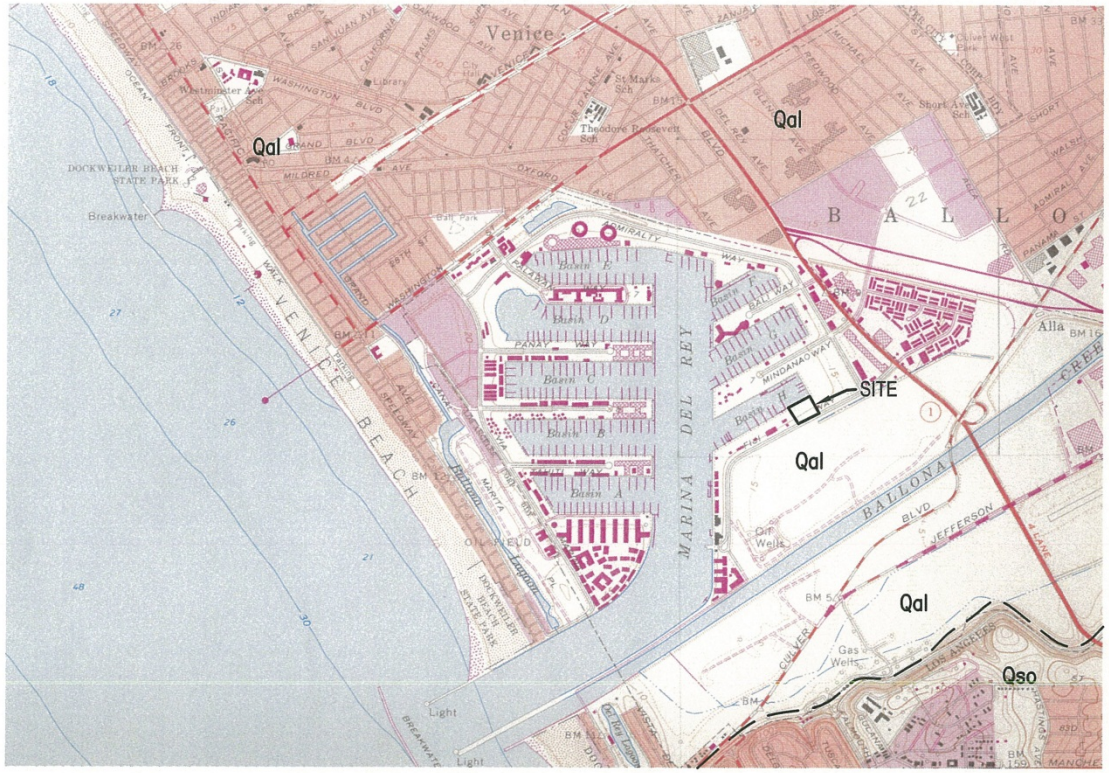
The Los Angeles Basin is underlain by a deep structural depression that has been filled with deposits from marine and continental sources. The sediments are underlain by a basement complex of crystalline igneous and metamorphic composition. The marina is composed of hydraulic fill that overlies coastal deposits consisting of bay mud and beach and lagoonal deposits. The coastal deposits are underlain by estuary deposits with peat from Ballona Creek and the ancestral Los Angeles River. Pleistocene deposits beneath the estuary deposits consist of San Pedro Formation units. Exhibit 5.4-1 – Regional Geologic Map on the following page shows the geology in the region surrounding the project site.

Hydraulic fill soils varying from 6 to 9 feet in thickness were encountered in the borings conducted as part of the geotechnical investigation. The fill soils consist primarily of sand and silty sand. The hydraulic fill is a result of the prior marina construction. The natural soils beneath the fill are recent coastal estuary deposits consisting predominantly of soft compressible silts and clays, loose sands and silty sands with highly organic peat layers up to 10 feet thick to depths of about 51 to 56 feet underlain by dense sands and gravels.

The soil conditions were explored by drilling three borings and performing two cone penetration soundings at the site. The site is underlain by hydraulic fill soils 6 to 9 feet thick and recent estuary deposits to depths of 47 to 56 feet. The estuary deposits are variable containing soft, compressible silts and clays, loose sands, and silty sands with highly organic peat layers. These weak deposits are underlain by dense sands and gravels.

Groundwater was measured in all of the borings at depths ranging from 7 to 8 feet below the ground surface (corresponding to Elevations +1 to +7 feet above mean sea level). The groundwater levels fluctuate with tides. Research revealed a historic high groundwater level of 5 feet below grade.

Laboratory tests were performed on selected samples obtained from the borings to aid in the classification of the soils and to determine the pertinent engineering properties of the foundation soils. The following tests were performed: Moisture content and dry density determinations, Direct shear, Consolidation, Grain Size, Atterberg Limits, Stabilometer (R-Value) and Corrosion Studies. All testing was done in general accordance with applicable ASTM specifications. Details of the laboratory testing program and test results are presented in the geotechnical investigation (Appendix F of the EIR).



EXPLANATION

Qal ALLUVIUM

Qso OLDER DUNE SAND

GEOLOGIC CONTACT
DASHED WHERE APROXIMATE

SCALE 1:24000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 KILOMETER

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET-DATUM IS MEAN LOWER LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 4 FEET

ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route — State Route

DRAWING REFERENCE: USGS, VENICE 7½ MINUTE QUADRANGLE
AERIAL GEOLOGY FROM DWR BULLETIN 104, PLATE 38

VAN BEVEREN & BUTELO, INC.
706 W. Broadway, Suite 201, Glendale, CA 91204
VOICE (818) 543-4560 FAX (818) 543-4565

REGIONAL GEOLOGIC MAP

JOB NO. 07-025
DRAWN BY: LL
CHECKED BY: JB
DATE: FEB 25, 2008

Exhibit 5.4-1 – Regional Geologic Map

2. Faults and Seismicity

The proposed project is located in an area with known fault zones. Earthquakes occur frequently in Southern California because it is a seismically active area. The project site is not located on or near an Alquist-Priolo Earthquake Fault Zone. As detailed in the Seismic Hazards map in the Marina del Rey Land Use Plan, no active or potentially active faults run through the project site.[22] The closest Alquist-Priolo Earthquake Fault Zone, established for the Newport-Inglewood fault, is located 5.8 miles to the northeast of the site. Faults, or fault-related features, were not observed during site reconnaissance for the geotechnical investigation. Exhibit 5.4-2 illustrates the major active and potentially active faults and historic epicenters in the southern California area. No active or potentially active faults with the potential for surface fault rupture are known to be located directly beneath the site. Therefore, the potential for surface rupture hazard during the design life of the proposed storage structure is considered low.

The closest active fault to the site is the Palos Verdes fault. The Palos Verdes fault has been mapped approximately 4 miles southwest of the site. Historic, large magnitude earthquakes are not yet associated with this fault. The Newport-Inglewood fault zone, is located about 6 miles northeast of the site. Other active faults nearby include the Santa Monica-Hollywood fault, the Raymond fault, and the Whittier fault, located 6 miles north, 20 miles northeast, and 24 miles east of the site, respectively. The San Andreas fault zone is located about 44 miles northeast of the site. The closest potentially active fault to the site is the Charnock fault, located about 2.4 miles northeast. Additional, potentially active faults nearby include the Coyote Pass fault, and the Norwalk fault, located 13 miles east and 22 miles southeast of the site, respectively.

Table 5.4-1 below lists the earthquakes of moderate to large magnitude that have occurred in Southern California over the past 60 years.

Table 5.4-1 List of Historic Earthquakes

Earthquake	Date of Earthquake	Magnitude	Distance to Epicenter (miles)	Direction to Epicenter
Long Beach	March 11, 1933	6.4	37	South-Southeast
San Fernando	February 9, 1971	6.6	31	North-Northwest
Whittier Narrows	October 1, 1987	5.9	21	East
Sierra Madre	June 28, 1991	5.4	32	Northeast
Big Bear	June 28, 1992	6.4	92	East
Landers	June 28, 1992	7.3	113	East
Northridge	January 17, 1994	6.7	17	Northwest

Source: Van Beveren and Butelo, February 25, 2008, Report of Geotechnical Investigation Proposed Boat Storage Facility, pg 6

[22] Marina del Rey LUP, §C.10, Map 23. p 10-7

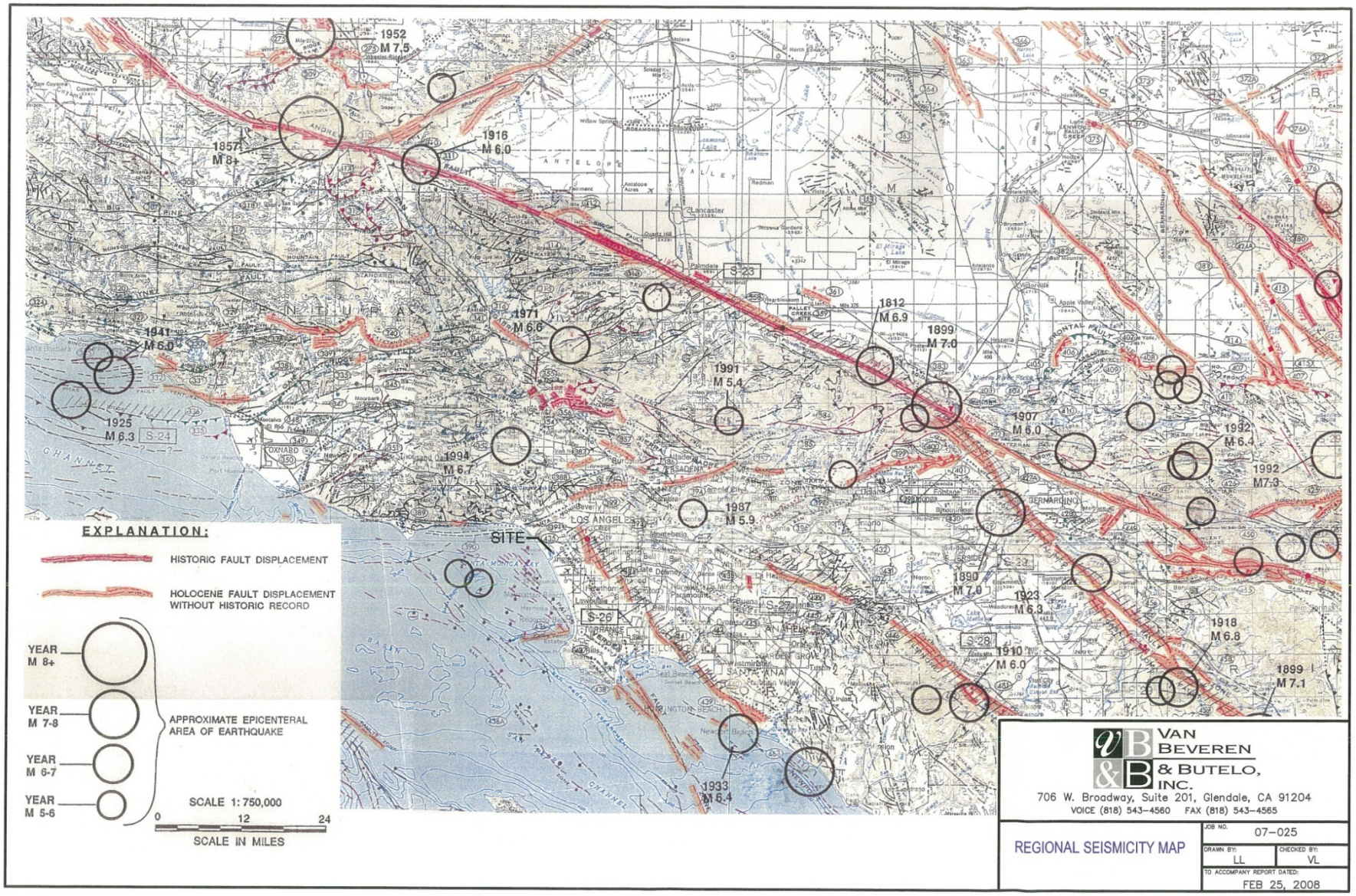


Exhibit 5.4-2 – Regional Seismicity Map

The site is not exposed to a greater than normal seismic risk compared to other areas of southern California. However, based on the active and potentially active faults in the region, the site will likely be subjected to significant ground shaking in the event of an earthquake.

Slope Stability and Landslides

The project site is not located in an area containing major landslides, per the County of Los Angeles General Plan. The slope stability graphic in the County's General plan indicates that the project site lies within a stable area. There are no known landslides near the site, nor is the site in the path of any known or potential landslides. The elevation of the project site ranges from 7 to 15 feet above sea level. Due to the relatively flat nature of the project site it is not expected that a landslide will occur.

Tsunamis

According to the Los Angeles County Seismic Safety Element (1990), the site is located in a tsunamis hazard zone. According to recently prepared tsunami-related inundation maps by the State of California, the maximum potential run-up height for the Marina del Rey area could be 15 feet. The County of Los Angeles has included the site within the limits of a Tsunami Inundation Zone, and the site could be subjected to the effects of a seismic sea wave. The proposed project will not change the height of the existing bulkhead. Please refer to Section 5.6, Hydrology and Water Quality (beginning on page 5-137 of this DEIR) for a discussion of tsunamis, sea level rise, and flooding.

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which saturated cohesionless granular soils break down due to seismic shaking or other rapidly applied loading. During liquefaction, an earthquake or other seismic event causes the soil to convert into a fluid-like substance. Liquefaction potential is greatest where the ground water level is shallow, and submerged loose, fine sands occur within a depth of about 50 feet or less. As ground acceleration and shaking duration increase during an earthquake, liquefaction potential increases. As detailed in the California Geologic Survey (formerly the California Division of Mines and Geology) Seismic Hazard Zones Map California Dept. of Conservation 2001) for the Venice Quadrangle, Exhibit 5.4-3 shows the project's location in a potential liquefaction zone. The site also lies within a potential liquefaction zone as detailed in the County of Los Angeles General Plan Seismic Zones Map. The fluid-like quality of the soil creates a hazard because the soil is unstable and cannot support a lot of weight.

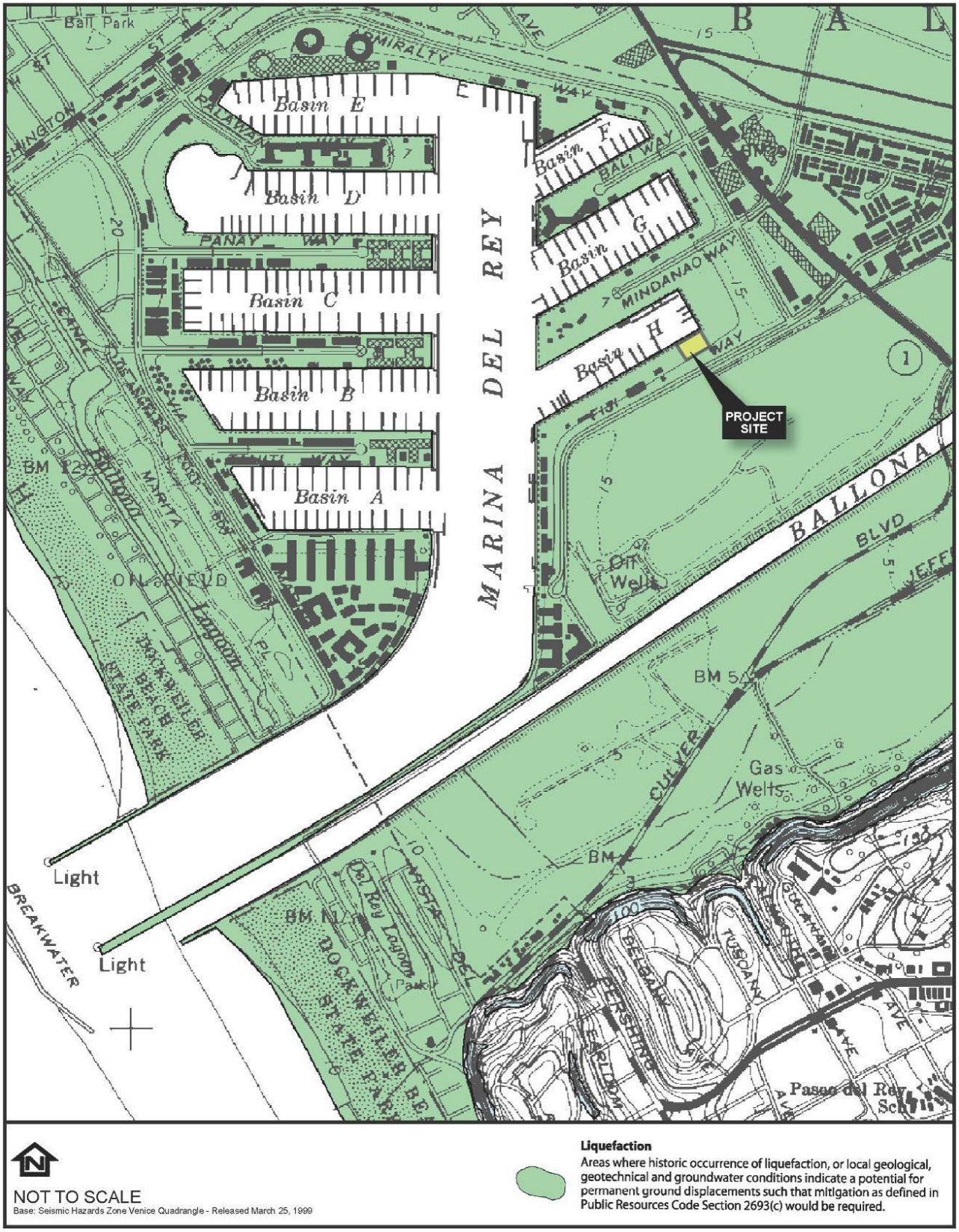


Exhibit 5.4-3 – Seismic Hazards Zone Map

Lateral spreading is a liquefaction-induced lateral displacement that often occurs for sites on sloping ground or near a free-face. Past earthquakes have shown that under adverse conditions, lateral spreading can produce large lateral displacements that can be damaging to foundations. Due to the complex nature of liquefaction-induced lateral spreading, estimation of the magnitude of potential lateral displacements at a site is very difficult. Statistically derived empirical equations utilizing back-analyses of lateral spreading case histories are often used to provide an order of magnitude of expected lateral displacements. The site's topography precludes stability problems related to cut or fill slopes. However, there is a potential for deformation failure due to lateral spreading resulting from liquefaction. There are no expansive soils on the site.

Subsidence

The site is not located within an area of known subsidence associated with fluid withdrawal (groundwater or petroleum) or hydrocompaction. Three borings were performed on-site. Borings 1 and 2 encountered highly organic peat deposits up to 10 feet thick. The peat may oxidize over time, and some resulting settlement should be expected. The site is located within the Playa Del Rey Oil Field. Subsidence associated with petroleum production has been identified in some of the oil fields in the Los Angeles Basin; however, subsidence has not been identified in the Playa Del Rey Oil Field. Consequently, the potential for future subsidence within the oil field is considered low.

As detailed on the State of California, Division of Oil and Gas (CDOG) Division of Oil, Gas and Geothermal Resources (DOGGR) Los Angeles County Map 120, Playa del Rey, active or abandoned oil wells are not known to be located within the site limits. Two abandoned oil wells are located within 1,100 feet of the site. One is located approximately 1,050 feet to the northwest, the other approximately 1,100 feet to the east. In the event that old oil wells are encountered during construction, they would need to be reported to the CDOG and properly abandoned in accordance with the current CDOG requirements.

Methane Gas

The site is located within the limits of a known oil field. Although oil wells are not known to be located within the limits of the site, there is a possibility that methane gas at depth could migrate through the estuary deposits and fill to the surface. Peat deposits beneath the site are subject to oxidation and settlement. Methane gas from peat decomposition or subsurface petroleum deposits may be present at the site or could migrate to the surface in the future. Methane is addressed in Section 5.5, Hazards and Hazardous Materials (beginning on page 5-119 of this EIR).

Sea Wall/Bulkhead Structural Integrity

As detailed in the Report of Geotechnical Investigation (Appendix F) for the proposed project, the marina is separated from the site by an existing sea wall. The sea wall

consists of reinforced concrete panels supported by three rows of deadmen (anchors to hold mooring lines) at approximately 15 feet on centers. The deadmen are restrained by vertical "caissons" at the back of the wall. The site is located within the limits of a potential liquefaction hazard zone. Liquefaction could cause the existing sea wall to fail. As discussed in this section, the liquefaction and lateral spreading potential will need to be addressed by: 1) constructing a supplemental supporting system within the soils behind the sea wall to confine the soils from potential lateral movement, or 2) improving the supporting characteristics of the liquefaction-susceptible soils with a ground modification technique. Considering the non-habitable nature of the dry stack boat storage structure, the soil-cement columns installed adjacent to the sea wall would be the most cost-effective foundation solution. Soil-cement columns should be installed between the existing sea wall and the dry stack boat storage structure.

The columns would be designed to provide lateral resistance to support the liquefied soils behind the columns. Dredging of Basin H will not occur with the proposed project. If the site is designed as recommended in the Geotechnical Investigation, the proposed structure will be safe against hazards from landslide, settlement, or slippage. Recommendations contained in the Report of Geotechnical Investigation ensure the structural integrity of the sea wall and bulkhead. Please refer to Section 5.4.4, Recommendations, for additional details.

5.4.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles has not adopted thresholds of significance for geology and soils. Thus, for purposes of this analysis, the applicable thresholds listed in CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact with respect to geology and soils if it would:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.

   ii) Strong seismic ground shaking.

   iii) Seismic-related ground failure, including liquefaction.

   iv) Landslides.

b) Result in substantial soil erosion or the loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

5.4.3 Project Impacts Prior to Mitigation

1. Vibrations

The letter dated December 10, 2008 by Van Beveren and Butelo references the study prepared by Wieland Acoustics, which identified the possibility of excessive vibrations as a result of the pile driving at a nearby commercial property. Vibration distress is associated with pile driving. An indicator pile program will be performed prior to proceeding with pile installation and casting of the production piles. The indicator pile program will establish a procedure for pile installation, measuring the efficiency and ability of the pile driving hammer to install the piles to the required design lengths. The indicator pile will be located away from the existing buildings to avoid damaging the structures due to excessive vibrations during pile installation. Vibration monitors will be arrayed around the indicator pile to measure the potential for vibration damage without damage to existing buildings. Wieland Acoustics have recommended a damage criterion to be used when monitoring the pile driving. The criterion is a peak particle velocity (PPV) of 0.2 inches per second.

2. Faults and Seismicity

The project site is in a seismically active area of Southern California. Based on the available geologic data, no known active or potentially active faults with the potential for surface fault rupture are located beneath the site. Thus, the potential for surface rupture at the site due to faulting during the design life of the proposed development is considered low. Although the site could be subjected to strong ground shaking in the event of an earthquake, this hazard is common in Southern California, and the effects of ground shaking can be mitigated if the structures are designed and constructed in conformance with current building codes and engineering practices. All new construction is required to adhere to Uniform Building Code standards so that potential impacts are minimized. The proposed project will also comply with the County of Los Angeles grading code. Compliance with the County's codes and regulations will help ensure that the proposed development will be adequately built to withstand potential earthquakes and other seismic activities.

3. Slope Stability and Landslides

The project site is relatively level, and no slopes are nearby the project site; thus, conventional slope stability hazards are not present. The project is planned to be founded at grade and will incorporate pile foundations that will extend into competent soils at depth. The project will be supported on deep foundations extending through the existing fill and estuary deposits and into a dense deposit of sand and gravel at a depth of about 50 feet. Subterranean levels and other excavations into existing site soils are not planned at this time, and stability of temporary or permanent excavations is not considered a hazard to the project. Thus, the project is expected to have a less than significant impact with regards to slope stability.

The proposed project is not located in an area with major landslides, and the project is in a stable area, not prone to landslides. In addition, there are no slopes on the project site or in the vicinity of the site. The elevation of the site ranges from 7 to 15 feet above sea level. It is not anticipated that any significant impacts will result due to project construction and operation.

4. Liquefaction and Lateral Spreading

As detailed in the California Seismic Hazard Zones Map (Exhibit 5.4-3, page 5-101), the project site is within a liquefaction zone. If a severe earthquake were to occur, the soils at the site are susceptible to liquefaction, which could result in several inches of settlement and lateral spreading that could damage the existing sea wall.

Liquefaction-induced lateral spreading of the soils at the project location was evaluated based on the methodology discussed by Youd, et al. (2002). In the analysis, free-face conditions were assumed because of the proximity of the site to the marina seawall. In addition, the expected ground motions at the site, results of the grain size characteristics of the saturated granular soils, as well as the results of the liquefaction evaluation were considered in the analysis. The perpendicular distance from the marina seawall to the middle of the site was used in the analysis. The seawall was assumed to provide no lateral restraint against lateral spread movements. According to the geotechnical analysis, there is potential for large liquefaction-induced lateral displacements on the order of several feet toward the marina seawall.

The liquefaction potential was evaluated using the results of the standard penetration tests (SPTs) performed in the borings, laboratory testing, and the cone penetration tests (CPTs). The measured shear wave velocity at the CPT-2 location also was considered. The historic-high groundwater depth at the site was taken as 5 feet. The results of the analyses indicate that a liquefaction potential exists at the site. Susceptible soils were encountered at various depths between the historic-high groundwater depth of 5 feet and a depth of approximately 50 feet. The total liquefaction-induced settlement of the estuary deposits is estimated to be on the order of 5 to 11 inches across the site in response to the specified ground motions. Surface manifestations of liquefaction are expected to occur based on this data. Differential settlements are expected to be

approximately half of the total liquefaction-induced settlement, or up to about 5 inches. Based on the shallow groundwater at the site and anticipated grading, dry settlement is not anticipated to pose a hazard to the proposed development.

The site is underlain by poorly compacted fill soils and soft, very compressible, estuary deposits, which are underlain by dense granular soils. Groundwater was measured at depths of 7 to 8 feet below existing grade. Liquefaction is likely within the fill and estuary deposits in the event of a severe earthquake near the site with resulting seismic settlement and lateral spreading towards the adjacent marina basin. It is possible that the existing sea wall could fail as a result of the liquefaction.

Soils reports will be obtained prior to issuance of a grading permit, to ensure that the facilities on-site are built on adequately stable soils. Grading and development permits will be reviewed by the County of Los Angeles to ensure that the geology of the site is adequate for project development. LACC §22.46.1180(A)(4) states "Applicants and their engineers are responsible for determining and following all current requirements and recommendations of the Los Angeles County Department of Public Works, the California Division of Mines and Geology and the California Seismic Safety Board. New development shall utilize earthquake resistant construction and engineering practices. All new development over three stories in height shall be designed to withstand a seismic event with a ground acceleration of no less than 0.5g." Thus, the proposed project must comply with the agencies listed above and must incorporate earthquake resistant construction and engineering to reduce impacts from an earthquake.

5. Subsidence

As stated previously in this section, the site is not located within an area of known subsidence associated with fluid withdrawal (groundwater or petroleum) or hydro-compaction. In addition, the potential for future subsidence within the oil field is considered low. Thus, no mitigation measures are anticipated for the proposed project relating to subsidence.

5.4.4 Recommendations

One of the objectives of the geotechnical investigation is to provide recommendations for the following:

- A feasible foundation system along with the necessary design parameters, including the estimated settlements due to the expected loadings
- Subgrade preparation and floor slab support
- Design of retaining walls
- Subgrade preparation and design of asphalt paving

- Grading, including site preparation, excavation and slopes, the placing of compacted fill, and quality control measures relating to earthwork

Recommendations from the Report of Geotechnical Investigation are reviewed briefly below. Please refer to the Report of Geotechnical Investigation (Appendix F of this DEIR) for complete detailed information.

1. General

It is likely that liquefaction may occur within the fill and estuary deposits of the project's soil. If a severe earthquake were to occur near the site, seismic settlement and lateral spreading towards the marina basin will likely occur, resulting in a failure of the sea wall from liquefaction. The liquefaction and lateral spreading will need to be addressed in one of the following ways:

1. Constructing a supplemental supporting system within the soils behind the sea wall to confine the soils from potential lateral movement.

   The supplemental supporting system could be accomplished using large-diameter soil-cement columns installed between the sea wall and the area of the dry stack boat storage structure. The soil-cement columns would be designed to restrain the soils from lateral movement resulting from liquefaction. The soil-cement columns installed adjacent to the sea wall would be the most cost-effective foundation solution.

2. Improving the supporting characteristics of the liquefaction-susceptible soils with a ground modification technique.

   The ground improvement process could include densification of the susceptible soils using a vibro-replacement method or by constructing a supplemental retaining system adjacent to the sea wall.

The upper soils on the project site are not suitable to support the foundation for the project. As detailed in the geotechnical investigation, foundations should extend into the underlying dense sand and gravel. The dry stack boat storage structure should be supported on pile foundations. The dock and boat spaces can also be supported on pile foundations and the pile foundations should be deigned to resist the downward forces from liquefaction.

2. Soil Cement Columns

Soil-cement columns should be installed between the existing sea wall and the dry stack boat storage structure. The soil-cement columns would be installed using a rotary-mixing technique referred to as the "Deep Mixing Method" where cement is mixed in-situ with the on-site soils. The columns would be designed to provide lateral resistance to support the liquefied soils behind the columns. The columns could be constructed to diameters of up to about 8 feet (or perhaps even larger). The soil-

cement columns could be installed as close to the sea wall as possible (behind the existing anchorage system and adjacent sewer) and to sufficient width to provide the needed lateral resistance to the lateral spreading forces. The soil-cement columns should extend into the dense sand and gravel, below the zone of liquefaction. The soils could potentially liquefy to depths of approximately 50 feet and preliminary analysis indicates that lateral spreading would occur within the upper 40 feet of the soil. Soil-cement columns should be installed into the dense sand and gravel.

3. Pile Foundations

Foundations for the proposed boat storage structure should extend through the existing fill and estuary deposits and into the underlying dense sand and gravel. Driven piles could be used. If the noise associated with pile driving is a problem, auger-cast piles could be used as an option. It has not yet been determined which method of pile installation will be used (driven or auger-cast), thus each is discussed below. Detailed information regarding piles such as: vertical capacities for driven piles and auger cast piles, down-drag loads, settlement, and lateral resistance are discussed in detail in the geotechnical investigation. The dock and the boat spaces require piles for lateral stability and will not be load-bearing.

4. Driven Pile Installation

Hard driving is anticipated in penetrating sandy layers of the estuary deposits and in the dense sand and gravel. Pre-drilling should be anticipated at the pile locations. The pre-drilling should not extend closer than 5 feet to the tip of the pile.

An indicator pile program will be needed prior to proceeding with pile installation and casting of the production piles. For such an indicator pile program it is recommended to install at least five indicator piles. The indicator piles may be production piles driven in their final locations. The indicator pile program should begin adjacent to one of the exploration borings. Consultation should occur during the indicator pile program so any variations in the soil conditions and modifications in the program can be addressed.

Because of potential variation in pile lengths, it is recommended that the indicator piles be cast at least 10 feet longer than the anticipated lengths. The required driving resistance will depend on the design pile capacity and the energy of the pile driving hammer. Please refer to the Report of Geotechnical Investigation (Appendix F) for more information regarding required pile driving resistance.

5. Auger-Cast-Pile Installation

The method of constructing auger cast piles can vary by contractor. The auger cast piles are typically installed by drilling a continuous-flight auger into the ground to the desired design depth and placing the concrete by pumping through the auger tip as the auger is withdrawn. A single reinforcing bar can be installed with the auger as it is

drilled into position, or a reinforcing cage can be installed through the concrete immediately after concrete placement.

Uncertainties involved with the installation of auger cast piles can include loss of integrity of the concrete if the auger is withdrawn faster than the placement of the concrete and inconsistent contact pressure during concrete placement caused by variations in the pumping pressure. The pile installation contractor should be selected based on their experience in the installation of auger cast piles. Van Beveren and Butelo recommends that they review procedures prior to awarding the contract and they recommend that at least two load tests be performed to verify the actual capacity of the piles.

It is recommended that integrity testing be performed to verify the continuity of the completed piles. The integrity tests shall be performed in accordance with the ASTM D5822 test method. The proposed project can be built to either the 1997 Uniform Building Code or the 2006 International Building Code standards. Please refer to the geotechnical investigation for additional information.

6. Floor Slab Support

If the subgrade is prepared as recommended, the structure floor slab can be supported on grade. The concrete slab floor will be placed under the crane and will serve as the main aisle of the structure. The area under the boat racks will consist of gravel. Construction activities and exposure to the environment can cause deterioration of the prepared subgrade. Van Beveren and Butelo recommends that their field representative observe the condition of the final subgrade soils immediately prior to slab-on-grade construction, and, if necessary, perform further density and moisture content tests to determine the suitability of the final prepared subgrade.

If vinyl or other moisture-sensitive floor covering is planned, it is recommended that the floor slab in those areas be underlain by a capillary break consisting of an impermeable membrane or a 4-inch-thick layer of gravel. A 2-inch-thick layer of sand should be placed between the subgrade and the membrane to decrease the possibility of damage to the membrane. Please refer to Table 5, Capillary Break in the Report of Geotechnical Investigation (Appendix F of this DEIR) regarding recommended gradation for the gravel.

A low-slump concrete should be used to minimize possible curling of the slab. A 2-inch-thick layer of coarse sand can be placed over the impermeable membrane to reduce slab curling. If this sand bedding is used, care should be taken during the placement of the concrete to prevent displacement of the sand. The concrete slab should be allowed to cure properly before placing vinyl or other moisture-sensitive floor covering.

7. Retaining Walls

The Report of Geotechnical Investigation discusses the design of retaining walls and provides details regarding lateral and seismic earth pressure**.** Please refer to the Report of Geotechnical Investigation (Appendix F of this DEIR) for detailed information regarding retaining wall design, lateral earth pressure, and seismic lateral earth pressure.

8. Drainage

Retaining walls should be designed to resist hydrostatic pressures or be provided with a drain pipe or weep holes. The drain could consist of a 4-inch-diameter perforated pipe placed with perforations down at the base of the wall. The pipe should be sloped at least 2 inches in 100 feet and surrounded by filter gravel. The filter gravel should meet the requirements of Class 2 Permeable Material as defined in the current State of California, Department of Transportation, Standard Specifications.

If Class 2 Permeable Material is not available, ¾-inch crushed rock or gravel separated from the on-site soils by an appropriate filter fabric can be used. The crushed rock or gravel should have less than 5% passing a No. 200 sieve.

9. Paving

To provide support for paving, the subgrade soils should be prepared as recommended in the following section on grading. Compaction of the subgrade, including trench backfills, to at least 90%, and achieving a firm, hard, and unyielding surface will be important for paving support. The preparation of the paving area subgrade should be done immediately prior to placement of the base course. Proper drainage of the paved areas should be provided since this will reduce moisture infiltration into the subgrade and increase the life of the paving.

To provide data for design of asphalt paving, the R-value of a sample of the upper soils was determined. The test results, which indicate an R-value of 73, are presented in the geotechnical investigation.

The required paving and base thicknesses will depend on the expected wheel loads and volume of traffic (Traffic Index or TI). Assuming that the paving subgrade will consist of the on-site or comparable soils with an R-value of at least 40 and compacted to at least 90% as recommended, the minimum recommended paving thicknesses can vary. Please refer to Table 6 in the Report of Geotechnical Investigation (Appendix F of this DEIR) for additional information. Careful inspection is recommended to check that the recommended thicknesses or greater are achieved, and that proper construction procedures are followed. The base course should conform to requirements of Section 26 of State of California Department of Transportation Standard Specifications (Caltrans), latest edition, or meet the specifications for untreated base as defined in Section 200-2 of the latest edition of the

Standard Specifications for Public Works Construction (Green Book). The base course should be compacted to at least 95%.

10. Grading

The existing fill soils are not uniformly well compacted and are not considered suitable for support of foundations, floor slabs on grade, or paving. The existing fill soils should be excavated and replaced as properly compacted fill. All required fill should be uniformly well compacted and observed and tested during placement. The on-site soils can be used in any required fill. It is anticipated that the grading will result in 20,400 cubic yards of export. The material will be taken to an approved dump site. No import of materials is anticipated.

11. Site Preparation

After the site is cleared and any existing fill soils are excavated as recommended, the exposed natural soils should be carefully observed for the removal of all unsuitable deposits. Next, the exposed soils should be scarified to a depth of 6 inches, brought to near-optimum moisture content, and rolled with heavy compaction equipment. At least the upper 6 inches of the exposed soils should be compacted to at least 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction.

12. Excavations and Temporary Slopes

The soils are sandy and will not stand vertically without caving. Excavations deeper than about 2 feet should be sloped back at 1:1 (horizontal to vertical) or shored for safety. Unshored excavations should not extend below a plane drawn at 1½:1 extending downward from adjacent existing footings.

Excavations should be observed by personnel of Van Beveren and Butelo so that any necessary modifications based on variations in the soil conditions can be made. All applicable safety requirements and regulations, including OSHA regulations, should be met.

13. Compaction

Any required fill should be placed in loose lifts not more than 8 inches thick and compacted to at least 90% of the maximum density as determined by the ASTM D1557 method of compaction. The moisture content of the on-site soils at the time of compaction should vary no more than 2% below or above optimum moisture content.

14. Basement and Retaining Wall Backfill

All required basement and retaining wall backfill should be mechanically compacted in layers; flooding should not be permitted. Proper compaction of backfill will be necessary to minimize settlement of the backfill and to minimize settlement of overlying slabs and paving. The on-site soils can be used in the compacted backfill. The exterior grades should be sloped to drain away from the foundations to prevent ponding of water. Some settlement of the backfill should be expected, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the structure. Also, provisions should be made for some settlement of concrete walks supported on backfill.

15. Material for Fill

The on-site soils, less any debris or organic matter, can be used in required fills. Cobbles larger than 4 inches in diameter should not be used in the fill. Any required import material should consist of relatively non-expansive soils with an expansion index of less than 35. The imported materials should contain sufficient fines (binder material) so as to be relatively impermeable and result in a stable subgrade when compacted. All proposed import materials should be approved by personnel from Van Beveren and Butelo prior to being placed at the site.

16. Geotechnical Observation

The reworking of the upper soils and the compaction of all required fill should be observed and tested during placement by a representative of our firm. This representative should perform at least the following duties:

- Observe installation of the soil-cement columns.
- Observe the exposed subgrade in areas to receive fill to check that the desired excavation has been achieved and that suitable soils are exposed.
- Observe the fill for uniformity during placement.
- Test the compacted fill for field density and compaction to determine the percentage of compaction achieved during backfill placement.
- Observe the indicator pile installation, the performing of pile load tests and the installation of the production piles.

The governmental agencies having jurisdiction over the project should be notified prior to commencement of grading so that the necessary grading permits can be obtained and arrangements can be made for required inspection(s). The contractor should be familiar with the inspection requirements of the reviewing agencies and the content of this report.

5.4.5 Mitigation Measures

The following mitigation measures are based on recommendations from the Report on Geotechnical Investigation and the December 10, 2008 letter by Van Beveren and Butelo.

G-1 Prior to construction, the project manager shall ensure that an indicator pile program will be performed prior to proceeding with pile installation and casting of the production piles.

G-2 Prior to construction, the project manager shall ensure that measurements shall be made during the indicator pile program to quantify the magnitude of the vibration and to permit changes in the pile driving procedures before the start of the production pile installation.

G-3 Prior to construction, the project manager shall ensure that vibration measurements are made during the indicator pile program and that those measurements are made initially from piles installed near the center of the site or at the greatest distances from the existing structures.

G-4 Prior to construction, the project manager shall ensure that vibration measurements made during the indicator pile program are taken using a portable seismometer connected to triaxial geophones placed on the ground surface. The geophones should be spaced at 50-foot intervals at distances between 50 and 200 feet from the pile being driven.

G-5 During construction, the project manager shall ensure that vibrations from the pile driving be compared to the specified damage criteria (0.2 inches per second). If the measurements exceed the allowable criteria, the project manager shall ensure that measures are taken to reduce distress (measures could include the use of hydraulic hammers in lieu of diesel hammers and pre-drilling the pile locations).

G-6 During construction, the project manager shall ensure that measurements are taken during the pile driving to monitor the effects on the existing structures.

G-7 During construction, the project manager shall ensure that, during pile driving, vibration measurements are taken adjacent to the existing buildings during pile driving to confirm the procedures established during the indicator pile program.

G-8 During construction, the project manager shall ensure that, in the event old oil wells are encountered, they will be reported to the State of California, Division of Oil and Gas (CDOG) and properly abandoned in accordance with the current CDOG requirements.

G-9 During construction, the project manager shall ensure that the liquefaction and lateral spreading potential is addressed by: a) construction of a

supplemental supporting system within the soils behind the sea wall to confine the soils from potential lateral movement, or b) improving the supporting characteristics of the liquefaction-susceptible soils with a ground modification technique.

G-10 During construction, the project manager shall ensure that foundations extend through the fill and estuary deposits and into the underlying dense sand and gravel on-site, and floor slabs on grade will need to be structurally supported.

G-11 During construction, the project manager shall ensure that the boatwright/lifeguard building is supported on pile foundations and that the foundation-level of the building consists of a continuously reinforced mat foundation supported on piles.

G-12 During construction, the project manager shall ensure that soil-cement columns are installed between the existing sea wall and the dry stack boat storage structure.

G-13 During construction, the project manager shall ensure that the soil-cement columns are installed through the liquefiable deposits and into the dense sand and gravel.

G-14 During construction, the project manager shall ensure that foundations for the proposed boat storage structure extend through the existing fill and estuary deposits and into the underlying dense sand and gravel.

G-15 During construction, the project manager shall ensure that a field representative from Van Beveren and Butelo (or another qualified geotechnical firm) observe the condition of the final subgrade soils immediately prior to slab-on-grade construction, and, if necessary, perform further density and moisture content tests to determine the suitability of the final prepared subgrade.

G-16 During construction, the project manager shall ensure that retaining walls are designed to resist hydrostatic pressures or are provided with a drain pipe or weep holes. The drain could consist of a 4-inch-diameter perforated pipe placed with perforations down at the base of the wall. The pipe should be sloped at least 2 inches in 100 feet and surrounded by filter gravel.

During construction, the project manager shall ensure that the filter gravel meets the requirements of Class 2 Permeable Material as defined in the current State of California, Department of Transportation, Standard Specifications. If Class 2 Permeable Material is not available, ¾-inch crushed rock or gravel separated from the on-site soils by an appropriate filter fabric can be used. The crushed rock or gravel should have less than 5% passing a No. 200 sieve.

G-17 During construction, the project manager shall ensure that cantilevered retaining walls are built to withstand the recommended earth pressure and resist any applicable surcharges due to storage traffic loads.

Additionally, during construction the project manager shall ensure that walls adjacent to streets or other areas subject to vehicular traffic are designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal vehicular traffic.

During construction, the project manger shall ensure that retaining walls more than 12 feet high should be designed to support a seismic active pressure.

G-18 During construction, the project manager shall ensure that the base course conforms to requirements of Section 26 of State of California Department of Transportation Standard Specifications (Caltrans), latest edition, or meets the specifications for untreated base as defined in Section 200-2 of the latest edition of the Standard Specifications for Public Works Construction (Green Book). During project construction the project manager shall ensure that the base course is compacted to at least 95%.

G-19 During construction, the project manager shall ensure that the existing fill soils are excavated and replaced as properly compacted fill and that all required fill is uniformly well compacted and observed and tested during placement.

G-20 During site preparation, the project manager shall ensure that after the site is cleared and any existing fill soils are excavated as recommended, the exposed natural soils are carefully observed for the removal of all unsuitable deposits. During site preparation, the project manager shall also ensure that exposed soils are scarified to a depth of 6 inches, brought to near-optimum moisture content, and rolled with heavy compaction equipment.

During site preparation, the project manager shall ensure that at least the upper 6 inches of the exposed soils are compacted to at least 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction.

G-21 During construction, the project manager shall ensure that excavations deeper than about 2 feet are sloped back at 1:1 (horizontal to vertical) or shored for safety. Unshored excavations shall not extend below a plane drawn at 1½:1 extending downward from adjacent existing footings.

During project construction, the project manager shall ensure that excavations are observed by personnel of Van Beveren and Butelo (or another qualified geotechnical firm) so that any necessary modifications

based on variations in the soil conditions can be made. The project manger shall ensure that during construction all applicable safety requirements and regulations, including OSHA regulations, are met.

G-22 During construction, the project manager shall ensure that any required fill is placed in loose lifts not more than 8 inches thick and compacted to at least 90% of the maximum density as determined by the ASTM D1557 method of compaction. During project construction, the project manager shall ensure that moisture content of the on-site soils at the time of compaction varies by no more than 2% below or above optimum moisture content.

G-23 During site preparation, the project manager shall ensure that all required basement and retaining wall backfill is mechanically compacted in layers and that flooding is not be permitted and that exterior grades be sloped to drain away from the foundations to prevent ponding of water.

G-24 During site preparation, the project manager shall ensure that any utilities supported within the backfill are designed to accept differential settlement, particularly at the points of entry to the structure and that provision is made for some settlement of concrete walks supported on backfill.

G-25 During site preparation, the project manager shall ensure that cobbles larger than 4 inches in diameter are not used in the fill. The project manager shall ensure that any required import material consists of relatively non-expansive soils with an expansion index of less than 35 and that imported materials contain sufficient fines (binder material) so as to be relatively impermeable and result in a stable subgrade when compacted.

Additionally, during site preparation, the project manager shall ensure that all proposed import materials are approved by personnel from Van Beveren and Butelo (or another qualified geotechnical firm) prior to being placed at the site.

G-26 During site preparation, the project manager shall ensure that the reworking of the upper soils and the compaction of all required fill is observed and tested during placement by a representative of Van Beveren and Butelo (or another qualified geotechnical firm). During site preparation, the project manager shall ensure that the representative performs at least the following duties:

- Observe installation of the soil-cement columns.
- Observe the exposed subgrade in areas to receive fill to check that the desired excavation has been achieved and that suitable soils are exposed.
- Observe the fill for uniformity during placement.

- Test the compacted fill for field density and compaction to determine the percentage of compaction achieved during backfill placement.
- Observe the indicator pile installation, the performing of pile load tests and the installation of the production piles.

G-27 Prior to commencement of grading of the site, the project manager shall ensure that the governmental agencies having jurisdiction over the project are notified prior to commencement of grading so that the necessary grading permits can be obtained and arrangements can be made for required inspection(s). Additionally, prior to commencement of site grading, the contractor shall be familiar with the inspection requirements of the reviewing agencies and the content of the Geotechnical Investigation by Van Beveren and Butelo.

5.4.6 Level of Significance after Mitigation

The geotechnical investigation contains several recommendations pertaining to liquefaction and lateral spreading on-site. As detailed in the Report of Geotechnical Investigation (Appendix F of this DEIR), if the site is designed as recommended, the site for the proposed structure will be safe against hazards from landslide, settlement or slippage, and the proposed structure and grading will not adversely affect the geologic stability of property outside of the site (Van Beveren 2008, p 12). It is anticipated that if the recommendations in the report are implemented, there will be a less than significant impact relative to the geologic stability of the proposed project.

5.4.7 Cumulative Impacts

None.

5.5 Hazards and Hazardous Materials

This section provides an analysis of the risks to the public and the environment posed by the project with respect to hazardous materials. Information in this section is based on the Phase I Preliminary Environmental Site Assessment dated August 3, 2007, prepared by Methane Specialists, and the Water Quality Technical Report dated October 14, 2008, prepared by Geosyntec Consultants. These reports are incorporated by reference into this section of the EIR pursuant to CEQA Guidelines §15150. Where a document is incorporated by reference, its pertinent sections will be briefly summarized and referenced in this section of the EIR. The scope of the Phase I study meets the requirements of American Society for Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessments (ESA) – Phase I Environmental Site Assessment Process. The Phase I report is included as Appendix G.

5.5.1 Existing Setting

The project site has been subject to previous development, including the temporary public parking lot located on Parcel 52. Parcel GG currently contains the Marina del Rey Sheriff's Boatwright/Lifeguard facility, maintenance shop and maintenance/storage yard, and five office trailers used by the Los Angeles County Department of Beaches & Harbors. The site is approximately four miles from Los Angeles International Airport and is not within the airport land use planning area.

1. Background

As part of background research for the Phase I report for the project site, the following documents were reviewed: topographic maps, aerial photographs, LACDPW files, SCAQMD files, Los Angeles County Building and Safety Department files, and historical city directory information. Results from the background research are described below.

2. Topographic Maps

Environmental Data Resources, Inc. (EDR) was contacted to research topographic maps for the project site and the surrounding area. The following table summarizes the site findings based on the maps.

Table 5.5-1 Summary of Topographic Maps

Year	Quadrangle	Description
1896	Redondo 15'	Subject property and surrounding area are shown as being part of Ballona Lagoon. Port Ballona is at the south entrance of the Lagoon. Santa Monica Branch railroad is built to the north of the Lagoon.
1901	Southern California Sheet 1 60'	Subject property and surrounding area are shown as being part of Ballona Lagoon. More roads north and south of Port Ballona have been constructed.
1934	Venice 6'	Subject property and surrounding area are shown as being part of Ballona Lagoon. The Lagoon is now shown as a marsh. Culver Boulevard has been built east of the Lagoon, and Washington Street has been built north of the Lagoon. Port Ballona is now Playa del Rey, and there is development along the beach between the Lagoon and the water.
1948	Redondo 15'	Subject property and surrounding area are shown as being part of Ballona Marsh. There are oil wells south of the subject property. Roads have been built through parts of the marsh area, and Lincoln Boulevard has been built across the area. There is more development north and south of the marsh.
1950	Venice 7.5'	Subject property and surrounding area are shown as part of the marsh area. Los Angeles Lake is north of the marsh, and oil tanks are east of the lake. Pacific Avenue runs along the development on the beach.
1964	Venice 7.5'	The harbor of Marina del Rey is developed in the former marsh, with eight basins. The subject property and the surrounding area situated at the end of Basin H, Fiji Way, Mindanao Way, and Admiralty Way, are all developed, along with roads along the other basins. The surrounding area is developed more.
1972	Venice 7.5' Photo revised from 1964	Subject property shown vacant and undeveloped. There are buildings on some surrounding properties. Boat slips have been built in Basin H. Entire marina is developed with more properties.
1981	Venice 7.5' Photo revised from 1964	No changes from above.

3. Aerial Photographs

EDR was contacted to obtain aerial photographs for the project site and surrounding area. Historical uses of the project site indicate that the property was vacant and unimproved farmland in 1928. The table below details the site development from 1928 to 2002.

Table 5.5-2 Summary of Aerial Photographs

Year	Quadrangle	Description
1928	Fairchild	Subject property shown as vacant and unimproved farmland. There are no developed areas shown except for what appears to be a road northeast of the property where Lincoln Boulevard is today.
1938	Laval	The subject property remains vacant and unimproved. There are what appear to be two ponds just west of the property. The road to the northeast is bigger. Ballona Creek is present southeast of the property, with a bridge crossing it.
1947	Fairchild	The subject property remains vacant an unimproved. Ponds west of the property appear dried up. No other changes in adjacent properties.
1956	Fairchild	The subject property remains vacant and unimproved. The ponds appear dried up. No other changes in adjacent properties.
1965	Fairchild	Subject property remains vacant and unimproved. Marina del Rey has been developed. marina is full of water, some boat slips have been built, and some properties along the marina area developed. Adjacent property has boat slips and a building on it. South of the subject property is undeveloped.
1976	Teledyne	Parcel GG has a single building corresponding to the Sheriff's maintenance building. Parcel 52 appears vacant and unimproved. There is a parking lot on the property northeast of the subject property. The marina is full of boat slips and development.
1989	USGS	Parcel GG has four additional buildings on it. Parcel 52 is a parking lot. The property directly east appears to be a boat storage lot. South of the property remains unchanged.
1994	USGS	No change in subject property or adjacent areas.
2002	USGS	No change in subject property or adjacent areas.

4. Los Angeles County Department of Public Works Files

As part of the Phase I report the LACDPW Environmental Programs Division file records were reviewed for the purpose of researching underground storage tanks and hazardous materials on the project site. Records relating to the development of a boat repair facility date back to December of 1976.

In December 1998 a leak from the underground storage tanks was discovered. In February 1999 an Underground Storage Tank (UST) Removal Report was prepared for the site by TAIT Environmental Management. In November 2000 a letter was written by the LACDPW stating that the UST closure report was reviewed and that additional closure requirements are required, including vertical and lateral extent of contamination, a remedial action plan to mitigate contamination and documentation regarding groundwater depth.

In March 2003 an Environmental Site Assessment Report (ESAR) and Remedial Action Plan was prepared by Shaw Environmental. In July 2003 a letter was written from LACDPW indicating that the Shaw ESAR was reviewed and is being referred to the

RWQCB. In November 2003 a letter was written from the RWQCB confirming the review of the Shaw ESAR and requiring the installation of three groundwater-monitoring wells per the Shaw ESAR, as well as other recommendations.

5. South Coast Air Quality Management District Files

The Phase I report involved a public records review of documents from the SCAQMD files for the purpose of reviewing permits, inspections, violations, compliance, and other information regarding the project site. In 1983 a permit was issued for the storage and dispensing of gasoline. In 1989 a permit was issued to operate a storage tank for fuel oil, and in 1993 a permit was issued for operation of a gasoline storage tank. In 1994 there was a violation, and three compliance measures were required. In 1995 a permit was issued for the operation of a gasoline storage tank.

6. Los Angeles County Building and Safety Department Files

The Phase I report included a review of the Los Angeles County Building and Safety Department to obtain information regarding building permits and certificates of occupancy for the project site. In August 1985 a coastal permit was issued for pier foundation-ramp-steps-installation for a state-approved trailer on the site. In December 1998 a permit was issued for removal of the two underground storage tanks.

7. Historical City Directory Research

In addition to the review of files for the agencies described above, the Phase I report includes historical city directory research. EDR researched historical directories for the project site and adjacent sites. The directories researched included the Los Angeles Directory Company, Kaasen Directory Company Publishers, R.L. Polk and Company, Pacific Directory Company, Pacific Telephone Company, Luskey Brothers and Company, GTE Directories, B and G Publications, Pacific Bell Telephone, and Haines and Company. The directories were reviewed at approximately one-year intervals spanning from 1920 to 2006. Between 1920 and 1972 the site address (13483 Fiji Way) was not listed in the directories. In 1975 the address was listed as New Age Builders, Incorporated. From 1976 to 2006 the address was not listed.

The conditions on-site were observed during a preliminary reconnaissance visit conducted by Willow Brohmer and Michael Tiffany on July 23, 2007. Some portions of the site, including the interiors of the buildings, trailers, and storage containers at the County facility, were not completely observed. The Phase I observations are described in detail below.

8. Observations

The following observations were made during the site visit made by Methane Specialists: The eastern portion of the site (Parcel GG) consists of the Marina del Rey Sheriff's Boatwright/Lifeguard facility maintenance building, auto and boat

maintenance shops, a maintenance yard, and hazardous materials storage; five office trailers occupied by the Los Angeles County Department of Beaches & Harbors; and two Los Angeles County Fire Department rescue equipment storage containers. Fifty-five-gallon drums were observed in the maintenance yard/storage areas. These drums were labeled but were not in secondary containments. Five metal hazardous materials lockers were observed along the northeast side of the maintenance yard. Paint containers were observed in one locker. At the east end of the Sheriff's maintenance building is an outdoor auto service bay containing an above ground waste oil storage tank, an air compressor, a hydraulic lift, and a storm drain catch basin. A parts cleaner was in the maintenance yard. There were minor oil and solvent stains within the maintenance yard and on the paved asphalt in the project site. These stains create a potential for soil contamination by penetration through cracks in the pavement. The former underground storage tanks were located south of the service bay. A boat repair shop is located north of the Sheriff's maintenance building. Boat engines are stored in a shed north of the auto service bay. Several boats were observed in the yard between the Sheriff's maintenance building and the boat repair shop. Five-gallon (or less) containers of hazardous materials (paint, lubricants, cleaners, and similar maintenance products) were observed in the maintenance shop and storage areas. No evidence of significant releases of hazardous materials was observed.

9. Asbestos

Asbestos is commonly used for thermal insulation in buildings and is also used as an acoustic sound insulator and as fire proofing. Asbestos is comprised of microscopic bundles of fibers that have the potential to become airborne when damaged/disturbed. Significant health problems can result from the inhalation of asbestos (U.S. EPA). The existing County of Los Angeles facilities on-site will be removed prior to construction of the proposed project. Removal of the existing County facilities is currently outside the scope of this project and will be addressed by the County of Los Angeles. Thus, any asbestos impacts relating to removal of the on-site County facilities are the responsibility of the County of Los Angeles. However, in the event the applicant is required to perform the demolition, mitigation is provided to require an inspection of the buildings and a method of safe disposal if asbestos is present.

10. Fire Hazards

The existing facilities have adequate water and pressure to meet fire flow standards. The site is not susceptible to wildland fires because of its location in an urban area. The site is not a Very High Fire Hazard Severity Zone.

11. Hazardous Materials

The State of California defines a hazardous material as a substance that is toxic, flammable/ignitable, reactive, and/or corrosive. Some types of land uses, such as those proposed as part of the proposed project, involve the usage and storage of materials that are hazardous.

12. Leaking Underground Storage Tanks

The project site is listed in the EDR Radius Report as a hazardous waste generator and a leaking underground storage tank (LUST) site. As detailed in the Water Board Geotracker database, the project site is listed as a Leaking Underground Fuel Tank (LUFT) site. As described in the Phase I Report, underground storage tanks were installed on the project (Parcel GG) between 1976 and 1983. The UST Removal Report for the two 1,000-gallon underground storage tanks (removed in December 1998) revealed that gasoline had been released into the soil at the project site. The UST report recommended additional assessment to characterize the extent of soil and possible groundwater contamination.

An ESA Report and Remedial Action Plan was issued by Shaw Environmental in March 2003. This report summarizes the environmental site assessment activities that took place at the Marina del Rey Sheriff's Boatwright/Lifeguard facility at 13483 and 13581 Fiji Way. The results of the soil samples taken for the tank removals reported TPH-G (total petroleum hydrocarbons - gasoline), benzene, and Methyl Tertiary Butyl Ether (MTBE) at or above laboratory detection limits. The report recommends that three groundwater-monitoring wells be installed at the subject site (Dock 52) to complete plum delineation and determine groundwater flow direction.

The ESA was reviewed by the RWQCB. The Board required that three wells be installed (per the recommendation in the ESA) and that investigation of the contamination be continued. No records were found by Methane Specialists to indicate that the November 12, 2003 orders of the RWQCB have been carried out. The ESA conducted by Shaw Environmental in March 2003 found that BTEX and fuel oxygenates exist in the soil and groundwater in the vicinity of the former underground storage tanks. Benzene and MTBE concentrations significantly exceeded the Maximum Contaminant Levels (MCLs) for drinking water.

Contamination from the underground storage tanks is limited to Parcel GG and is located near the southeast portion of the site. The extent of contamination is graphically depicted in Exhibit 5.5-1 from the March 2003 ESA Report and Remedial Action Plan by Shaw Environmental. The tanks leaked underneath the maintenance building, a portion of the maintenance yard, and a portion of the temporary public parking lot fronting Fiji Way. Remediation is needed to clean up the pollution from the LUSTs.

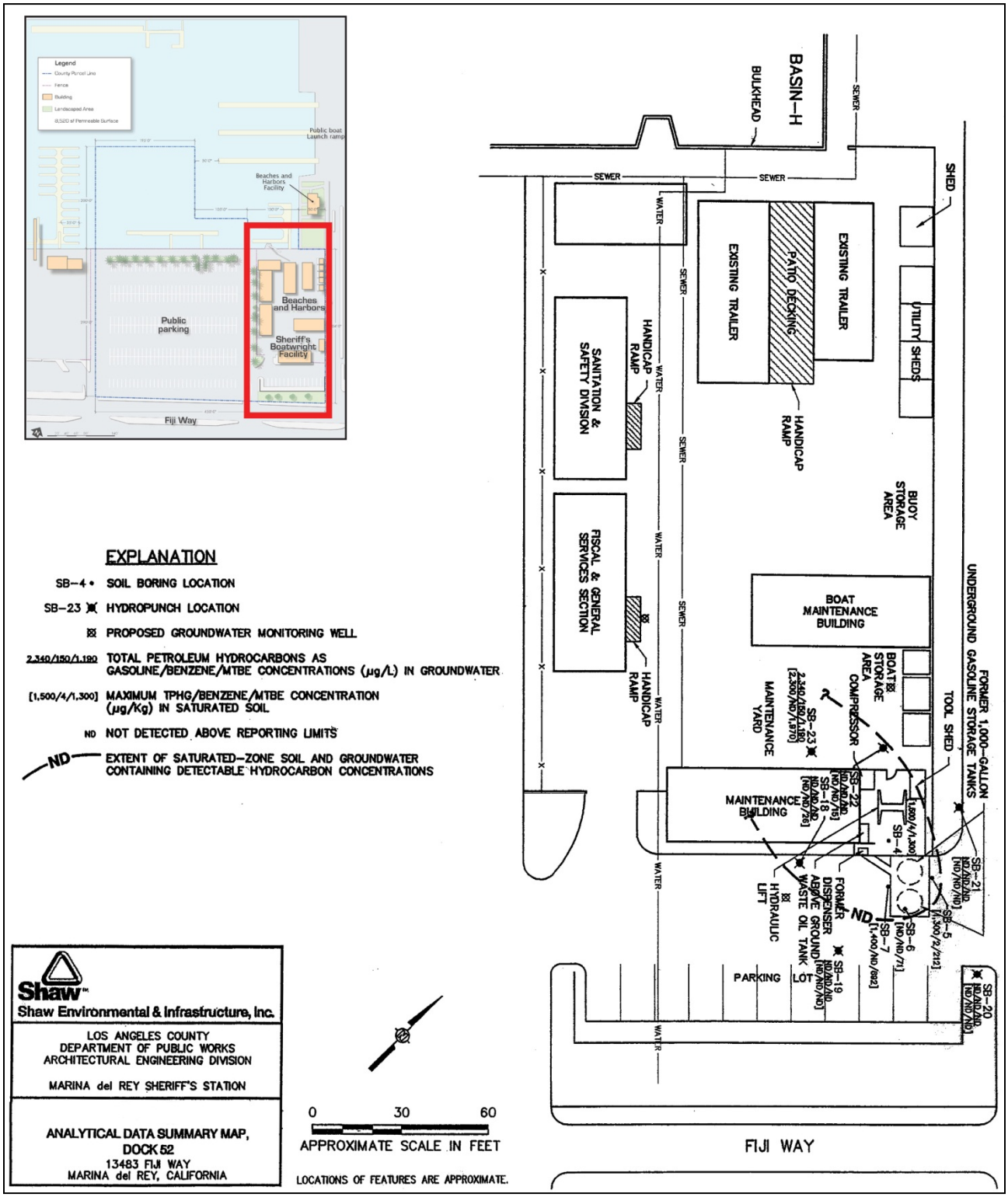


Exhibit 5.5-1 – Extent of Contamination

In the Phase I Preliminary Environmental Site Assessment, Methane Specialists recommends that the site be brought into compliance by responding to the LARWQCB order before the site is developed. To comply with the RWQCB order, the lateral extent of the groundwater contamination must be defined by installing a minimum of three groundwater monitoring wells. The wells must be monitored over time, and a remedial action plan should be proposed. Methane Specialists also recommends that a Phase II Subsurface Site Assessment be conducted to: assess the potential for contamination from non-underground storage tank sources, evaluate the current extent of the underground storage tank release, initiate compliance with the RWQCB order, and estimate the scope and cost of remediation. Methane Specialists recommends that the scope of the Phase II study include: "sampling of 10 to 15 hydraulic push soil borings, collection of hydropunch water samples from the borings, and installation and sampling of 3 to 5 groundwater monitoring wells, depending on the results of the hydropunch sampling" (Methane Specialists 2007, p 17).

The County of Los Angeles, as the land owner, is in the process of developing a plan for remediation. However, the full extent of the existing contamination and the level of clean up necessary are currently unknown. Remediation will likely take place concurrent with project grading. The project developer will export the contaminated soil as agent for the County. The remediation is independent of the proposed project. The project site will be fully remediated prior to project operation.

13. Sheriff's Boatwright/Lifeguard Facility

The Sheriff's Boatwright/Lifeguard facility uses and stores hazardous materials, including motor oil and petroleum solvents. The facility also generates hazardous waste (in the form of waste oil and petroleum solvents). Five metal hazardous materials lockers are located along the north-east side of the maintenance yard. All currently existing facilities will be removed from the project site so that the proposed project can be completed. Site observations for the Phase I report include small (five gallons or less) containers of hazardous materials, including paint, lubricants, cleaners, and similar maintenance products in the maintenance shop and storage areas. No evidence of significant releases of hazardous materials was observed during the site visit for the Phase I report.

14. Nearby Contaminated Sites

In accordance with the Standard Practice for Environmental Site Assessments (ASTM E 1527-05), EDR conducted a radius search of standard environmental records sources to determine the location of the nearest listed environmental risk sites to the project site. The two nearest risk sites are located at 13555 Fiji Way, adjacent to the west side of the project site, and the business located at 13645 Fiji Way, approximately 350 feet to the west of the project site. As described in the Phase I report, these sites use hazardous materials and/or generate hazardous waste, but they are not listed as known contaminated sites. The nearest listed contaminated site is a Unocal marine

facility located at 13701 Fiji Way, approximately 600 feet southwest of the project site. The facility is now closed.

Soil/groundwater contamination from above-mentioned sites is considered unlikely due to their distance from the project site. The EDR Radius Map Report showed no landfills or transfer stations located within a one-mile radius of the project site.

In the Phase I Report, Methane Specialists reviewed California Division of Oil, Gas and Geothermal Resources (DOGGR) oil field maps to determine if oil production occurred on or near the project site. No oil wells are located on the project site. This finding was supported in a letter from B&E Engineers dated August 10, 2007. The letter is included in Appendix K, Responses to Services Letters. The nearest active oil field, Playa Del Rey Field, is located less than a quarter mile south of the project site. The nearest oil well is the Marathon Oil Company Number 1 well, an uncompleted and abandoned well, located less than a quarter mile northwest of the project site. As detailed in the Preliminary Environmental Field Reconnaissance Questionnaire (Part A) of the Phase I report, the property is not known to be located in a methane hazard area due to oil fields, natural seepage, or landfill gas.

In addition, the Los Angeles County Building Code, Section 110.3, requires that a building or structure located on or within 1,000 feet (304.8 meters) of a landfill containing decomposable material must be protected against landfill gas intrusion. The former Celery Dump was located approximately 500 feet west of Lincoln Boulevard and 800 feet north of Culber Boulevard. A letter report by Shannon & Wilson, Inc., Geotechnical Consultants, dated March 4, 2011, contained the following information:

- Based on the available documentation, it is believed that the Celery Dump was more than 1,000 feet from the project site.
- The materials disposed of at the dump consisted of packing house waste, mainly celery trimmings and leaves, which was allowed to decompose on the surface before being discarded in the soil. The waste was periodically sprayed with a mixture of Lindane and fuel oil for odor and pest control.
- The Celery Dump was classified as an unlined, non-hazardous, solid waste disposal site.
- Soils and groundwater investigations in 1966 did not find any evidence of solid waste disposal, and evidence of landfill activities was not detected in soil and groundwater samples, including contamination from Lindane, fuel oil, or other organic pollutants.

Based on the findings, it was determined that the Celery Dump was a surface operation, the materials have subsequently decomposed, and there is no remaining evidence of the Celery Dump. Therefore, the former dump presents a negligible risk to the proposed project site.

5.5.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles has not adopted thresholds of significance for hazards and hazardous materials. Thus, for purposes of this analysis, the applicable thresholds listed in CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact with respect to hazards and hazardous materials if it would:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to *Government Code* §65962.5 and, as a result, would create a significant hazard to the public or the environment

e. Result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport

f. Result in a safety hazard for people residing or working in the project area for a project within the vicinity of a private airstrip

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

This section will analyze impacts from the perspective of the thresholds listed above.

5.5.3 Project Impacts Prior to Mitigation

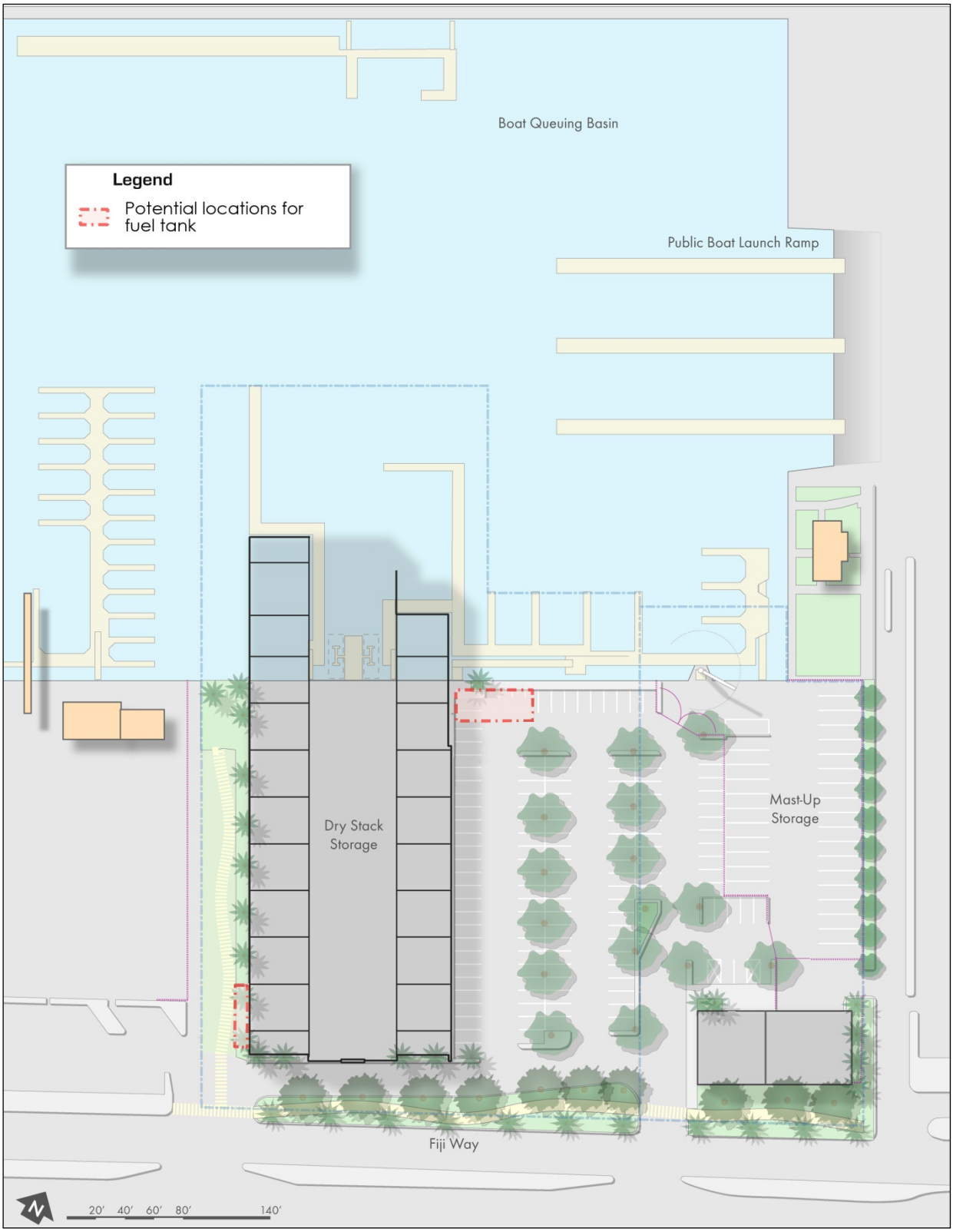
1. On-Site Fuel Tank

The project will include a fueling station to provide boaters with a convenient source of fuel. A fuel tank will provide on-site storage of petroleum hydrocarbons such as gasoline, which will be used for dockside fueling. The fuel tank is planned to be above-ground. The precise placement of the fuel tank has not been determined. The potential locations for the fuel tank are shown on Exhibit 5.5-2. To reduce the public's exposure to hazardous materials, the fuel pump shall be accessed by trained personnel only, and not the general public. Clearance from all relevant agencies will be obtained prior to construction of the fuel tank facility.

As was the case with the prior storage tanks on-site, leaking storage tanks are an issue because fuel contains hazardous substances. The proposed project will implement BMPs to reduce the project's impact on the environment and to prevent the leakage of any fuel. BMPs will be incorporated into the project to reduce the potential occurrence of upset or accident. The implementation of BMPs and compliance with the County of Los Angeles Health Hazardous Materials Division and the LACDPW /Waste Management requirements will mitigate any significant impacts resulting from the fuel tank to a less than significant level.

As part of long-term project operations, hazardous materials such as hydrocarbons could be released as a result of accidental spills and leakage from the storage tank. However, the project must comply with the requirements of the California Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). As detailed in the Water Quality Technical Report, the project will implement spill prevention measures to reduce the risk of accidental spills and leaks of hazardous materials to the environment. The Unified Program was created in 1993 to consolidate administration of six hazardous materials and waste programs under one agency, a Certified Unified Program Agency (CUPA). The Los Angeles County Fire Department is the CUPA with jurisdiction in the project location. Applicable requirements include (Geosyntec 2008, p 43-44):

- **Design standards.** Design of fuel storage facilities must conform to design standards, including standards for primary and secondary containment systems, piping systems, under-dispenser containment, fill and/or piping sumps, overfill protection, automated leak detection system monitors, and fueling/storage areas designed with minimum storm water exposure (e.g., routing storm water runoff around storage and fueling areas, covered areas, perimeter drains). Design standards are enforced during permitting and plan check review and by site inspections.
- **Hazardous Materials Storage Disclosure**. Owners/operators of businesses that handle or store hazardous materials above threshold quantities must submit annual inventory forms.



Source: AC Martin Partners, Inc.

Exhibit 5.5-2 – Potential Location for Underground Fuel Tank

- **Training Programs**. Hazardous materials handlers must develop and implement training programs and must maintain documentation of training programs, including training records of personnel, and attendance rosters. Training programs must include:
  - Methods of safe handling of hazardous materials
  - Procedures for coordination with local emergency response organizations
  - Use of emergency response equipment and supplies under control of the handler
  - Training in the emergency response plan and procedures
- **Spill Prevention Plans**. Owners/operators of above-ground storage tanks must prepare a Spill Prevention Control & Countermeasure Plan (SPCC) in accordance with the oil pollution prevention guidelines in the *Code of Federal Regulations* (40 CFR 112). These plans must include procedures, methods, and equipment at the facility to prevent discharges of petroleum from reaching navigable waters.
- **Inspections**. The County CUPA agencies conduct annual inspections of underground storage tanks, monitoring equipment and tank records. CUPA agencies are also required to inspect above ground storage tanks and verify hazardous materials storage disclosure and SPCC plans.
- **Spill Reporting**. State and federal laws require that hazardous material handlers immediately report significant or threatened releases of hazardous materials to the environment to appropriate agencies (e.g., 911, fire department, HazMat responders). State and federal agencies may require subsequent investigation and clean-up of hazardous materials spills.

It is anticipated that compliance with the requirements listed above (which constitutes a Project Design Feature) will reduce the impacts of hazardous materials storage and handling to a less than significant level.

2. Sheriff's Boatwright/Lifeguard Facility

Auto and boat repair associated with the Sheriff's Boatwright/Lifeguard facility and related operations have the potential to create soil and/or groundwater contamination. If operation of the new Sheriff's Boatwright/Lifeguard facility involves permanent on-site storage of hazardous materials above threshold quantities, the project must comply with the California Unified Hazardous Waste and Hazardous Materials Management Regulatory Program managed by the Los Angeles County Fire Department. As part of the project design and operation, the Sheriff's Department will be responsible for ensuring the proper use, handling, and storage of any solvents, paints, and other hazardous materials related to their operations.

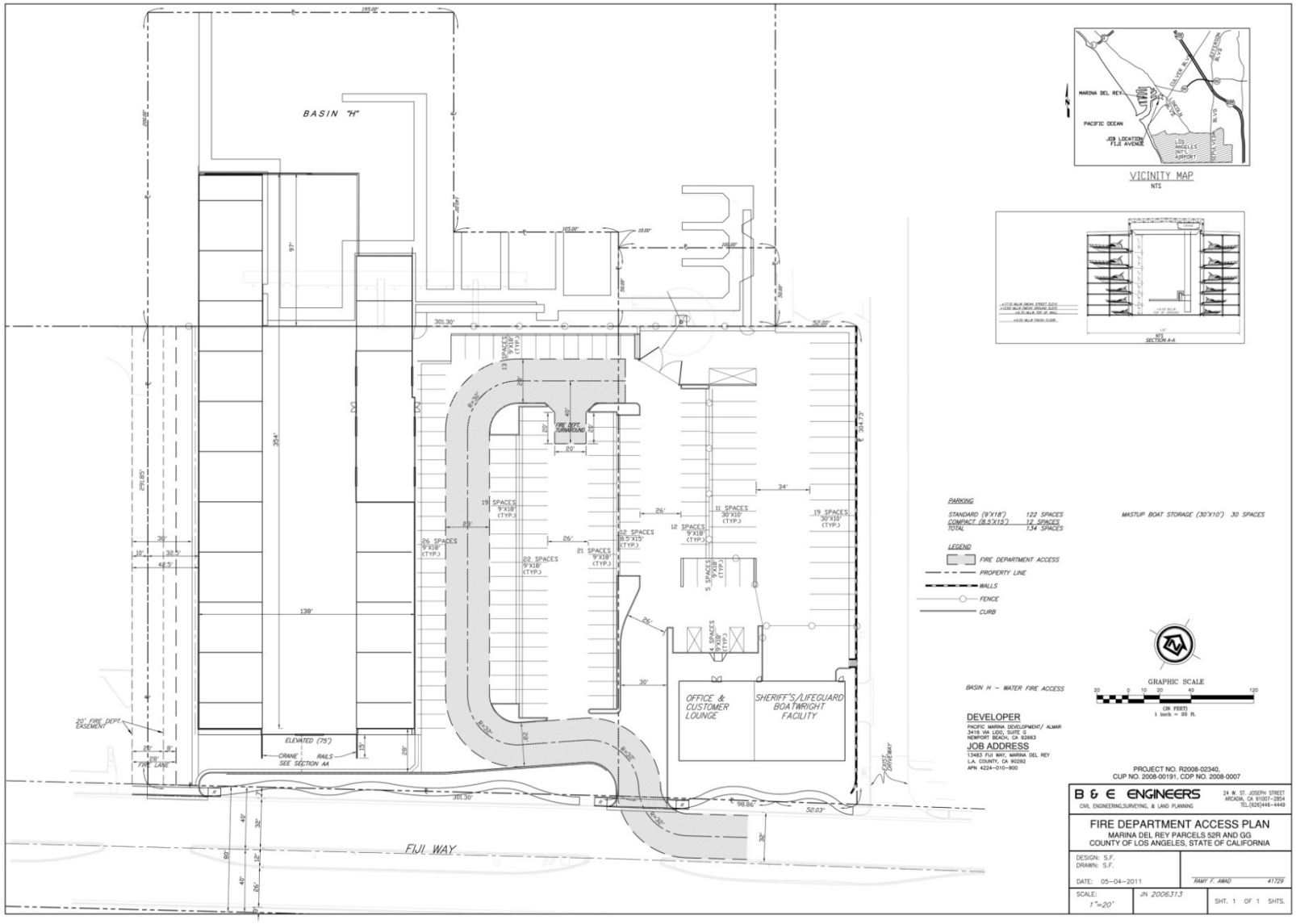
3. Indoor Boat Repair Facility

The dry stack boat storage structure would be located on Parcel 52. The structure would accommodate up to 345 boats and 28 boat trailers and an indoor boat repair facility. The 3,150-square-foot indoor boat repair facility will be located within three bays (each approximately 35 feet by 30 feet) on the ground floor. Materials associated with the indoor boat repair will involve the use and storage of hazardous materials, including motor oil and petroleum solvents. The boat storage structure will have catchment basins or filters that will catch runoff or leaks prior to discharge.

4. Fire Hazards

As described in the Phase I report by Methane Specialists, EDR was contacted to obtain historical Sanborn Fire Insurance Maps for the project site. These fire insurance maps aid insurance agents in determining the degree of hazard associated with properties. EDR reported that no Sanborn maps were found for the project site. The project site is currently developed and has access that is adequate for firefighting equipment. The fire access routes and easements for the proposed project are graphically depicted in Exhibit 5.5-3, which shows the variety of paths that fire engines can take within and around the site. The fire access routes and easements allow fire fighters to access the entire site in the event of a fire or emergency. Final building plans for the project will be submitted for the Los Angeles County Fire Department's review. The boat storage structure, the visitor lounge, and the Sheriff's Boatwright/Lifeguard facility will be built in compliance with Fire Code standards.

While the project will be in compliance with Fire Code standards, it is recognized that the dry stack boat storage structure could be a hazard due to the nature of the use if a fire occurs. The fuel tanks in stacked boats will contain fuel. To address the potential for accidental fire hazard, the project applicant will be required to provide an on-site automated fire suppression system, reviewed, and approved by the Los Angeles County Fire Department. The requirement for review and approval is included as Mitigation Measure HH-1. Coordination with the Fire Department for review of building plans and the fire suppression system will reduce potential impacts due to fire to less than significant.



Source: B&E Engineers

Exhibit 5.5-3 – Fire Access Routes and Easements

5. Conclusions

a. Short-Term Construction Impacts

No dredging will occur in Basin H for the proposed project. During project construction, hydrocarbons could be released from construction equipment/vehicle fueling or spills. However, as part of storm water pollution prevention, the proposed project is required to obtain a Construction General Permit and in doing so develop a Storm Water Pollution Prevention Plan (SWPPP). The proposed project must include BMPs that address proper handling of petroleum products on the construction-site, such as proper petroleum product storage and spill response practices, and those BMPs must effectively prevent the release of hydrocarbons per the Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) standards. Hydrocarbons that are adsorbed to sediment during the construction phase would be effectively controlled via the erosion and sediment control BMPs. Thus, pollution from hydrocarbons is prevented via implementation of pollution prevention for storm water runoff from the project site, as further analyzed in Section 5.6, Hydrology and Water Quality (beginning on page 5-137).

The project will include demolition of the existing offices and Boatwright repair facility. Potential impacts due to the presence of asbestos in the buildings to be demolished will be conducted by the County, and appropriate measures will be taken to safely handle and dispose of any hazardous materials encountered during the demolition. Impacts to air quality related to demolition have been identified and analyzed in Section 5.2, Air Quality (beginning on page 5-29).

In addition, the County has a Construction and Demolition Debris Recycling and Reuse Ordinance requiring that a minimum of 50% of all construction/demolition debris be reused or recycled. As a condition of approval, the County will require inclusion of recycling and reuse plans for disposal of construction debris. For long-term operation, the site will contain waste storage areas for the collection/storage of recyclable and green waste materials.

As was discussed earlier, cleanup of the existing contaminants is outside the scope of the proposed project and is the responsibility of the County of Los Angeles. The County of Los Angeles, as the land owner, is in the process of developing a plan for remediation. However, the full extent of the existing contamination and the level of clean up necessary are currently unknown. Remediation will likely take place concurrently with project construction. The remediation is independent of the proposed project. The project site will be fully remediated prior to project operation.

The proposed project is not anticipated to create a safety hazard for people residing or working in the project area. The proposed project will not interfere with air traffic. The project site is not located within the vicinity of a private airstrip, and no impacts will occur as a result of project implementation. The project will not impair the implementation of an adopted emergency response or evacuation plan. Additionally,

the project will not physically interfere with an adopted emergency response or evacuation plan.

b. Impacts from Long-Term Project Operation

The proposed project will involve the routine transport of hazardous materials in the form of gasoline transported for fuel for boats. A fuel tank, as previously described, will be located on-site for use by boaters. The operation of a dry stack boat storage structure and a Sheriff's Boatwright/Lifeguard facility involves the presence of materials and substances that are hazardous. Although the proposed project will handle hazardous materials on-site (oils, paint, solvents, fuel), the project is not located within one-quarter mile of an existing or proposed school.

Permits will be required for installation and operation of the gasoline fuel tank and the maintenance/repair facility. Compliance with state and local regulations for the safe handling and disposal of hazardous substances will be required. The presence and use of hazardous materials on the project site has the potential to create an impact. However, compliance with mitigation measures included herein and all regulatory conditions for permit approvals will reduce potential impacts to less than significant.

5.5.4 Mitigation Measures

HH-1 Prior to issuance of building permit, applicant shall submit for review and approval to the Los Angeles County Fire Department, plans for an on-site automated fire suppression system for the dry stack boat storage structure.

HH-2 Prior to construction of a fuel tank facility, the project applicant shall obtain clearance from all relevant agencies for the placement and installation of the fuel tank, including RWQCB, the Department of Public Works, and the County Fire Department.

HH-3 Prior to demolition of existing buildings on the site, the project applicant shall ensure that an inspection is performed by a qualified asbestos inspector. If asbestos is present, the applicant shall be required to ensure safe removal and disposal of such materials to a designated disposal site.

HH-4 During project construction and operation, the project applicant shall ensure that best management practices (BMPs) will be implemented to reduce the project's impact on the environment, to prevent the leakage of any fuel and to reduce the potential occurrence of upset or accident.

HH-5 During operation the project applicant shall ensure that the storage and disposal of any hazardous materials related to the operation of the indoor boat repair facility (such as paint, lubricants, cleaners and similar maintenance products) is in accordance with the County of Los

Angeles Health Hazardous Materials Division and the Los Angeles County Department of Public Works/Waste Management requirements.

HH-6 During operation the Sheriff's Department shall ensure that the storage and disposal of any hazardous materials related to its operations (such as paint, lubricants, cleaners and similar maintenance products) is in accordance with the County of Los Angeles Health Hazardous Materials Division and the Los Angeles County Department of Public Works/Waste Management requirements.

HH-7 Prior to operation of the facility, the project applicant shall verify that the project site has been fully remediated by the County of Los Angeles.

HH-8 During project operation, the site facilities manager shall ensure that the fuel pump shall be accessed by trained personnel only, and not the general public.

5.5.5 Level of Significance after Mitigation

The impacts in the area of hazards and hazardous materials, if any, would be contained on-site, and through the implementation of mitigation measures would not be cumulatively significant.

5.5.6 Cumulative Impacts

Cumulative effects associated with hazards and hazardous materials involve the soils on the project site contaminated by the LUSTs and the presence of hazardous materials related to fuel and boat repair activities. Implementation of the mitigation measures described above will ensure that the project will have no cumulative impacts associated with hazards and hazardous materials.

5.6 Hydrology and Water Quality

This section provides an analysis of whether the proposed project will violate any water quality standards or waste discharge requirements, substantially degrade water quality, place structures within a 100-year flood hazard area, expose people or structures to a significant risk involving flooding, and involve inundation by seiche, tsunami, or mudflow. Through the Initial Study the following issues were found to have no impact and, therefore, will not be analyzed further in this document:

- Depletion of groundwater supplies and recharge
- Alteration of the course of a stream or river resulting in substantial erosion or surface runoff
- Contribution of runoff water exceeding the capacity of storm water systems

Information in this section is based on the Water Quality Technical Report, dated October 14, 2008, prepared by Geosyntec Consultants (Appendix H in this DEIR). The Ballona Wetlands Restoration Feasibility Report, dated September 8, 2008 was prepared by the Santa Monica Bay Restoration Commission and Philip Williams & Associates, Ltd. with EDAW, Nordby Biological Consulting, Tierra Environmental, and Weston Solutions. The Report of Geotechnical Investigation: Proposed Boat Storage Facility dated February 25, 2008 by Van Beveren & Butelo (Appendix F in this EIR) was also referred to. These reports are incorporated by reference into this section of the EIR pursuant to CEQA Guidelines §15150. Where a document is incorporated by reference, its pertinent sections will be briefly summarized and referenced in this section of the EIR. A copy of each report is found in the Technical Appendices of this EIR.

5.6.1 Existing Physical Setting

The project site is currently developed and consists of two parcels: 52 and GG. Parcel 52 is oriented to the west and is developed with a temporary public parking lot. Parcel GG is oriented to the east and is currently developed with the Marina del Rey Sheriff's Boatwright/Lifeguard facility, a maintenance shop, and a maintenance/storage yard. Additionally, five office trailers used by the Los Angeles County Department of Beaches & Harbors are located on the site. A limited number of parking spaces, utilized by Sheriff and County employees, are located on Parcel GG.

1. Climate

The dry season climate for the project area is dry and warm. Intermittent storms occur during the wet season climate between November and March. At LAX the 57-year average annual rainfall is approximately 12.4 inches. The average high temperature is about 80°F, and the average winter low temperature is about 46°F.

2. Current Drainage

Runoff from the site is in the form of sheet flow, which currently drains from the project site to Basin H in the Marina del Rey harbor. Two area drains are located on the eastern half of the site. These drains collect runoff from a portion of the County maintenance facilities. A 7′3″ × 8′6″ rectangular concrete box storm drain currently traverses the site and collects runoff from off-site vacant areas south of Fiji Way (Area A) and outfalls to Basin H within the project area. The existing storm drain also acts as a tidal channel, which allows seawater to flow from Basin H to the off-site areas (Area A) during periods of high tide. Project site runoff that drains into Basin H has the potential to reach the off-site vacant area (Area A) if the direction of flow through the tidal channel is toward the off-site areas. Runoff from the project site undergoes some degree of mixing and dilution with waters in the harbor prior to reaching the off-site vacant area.

3. Subsurface Conditions and Groundwater Levels

The site is underlain by artificial fill and Quaternary alluvium that consists of clay and sandy clay. Groundwater occurs at depths of 7 to 8 feet (Van Beveren & Butelo 2008, p iv). There is existing contamination at the site caused by the accidental release of gasoline from the former underground storage tanks in the County maintenance yard, which were removed from the site. Remediation is needed to clean up the pollution from the leaking underground storage tanks. The County of Los Angeles, as the land owner, is in the process of developing a plan for remediation. However, the full extent of the existing contamination and the level of clean up necessary are currently unknown. Remediation is likely to take place concurrently with project construction. The remediation is independent of the proposed project. Please refer to Section 5.5, Hazards and Hazardous Materials (beginning on page 5-119 of this DEIR) for more information.

As detailed on the USGS quad sheet, no major drainage course is located on the site. The topography of the site ranges from a height of 15 feet above sea level at the southern portion of the site, sloping down to a height of 7 feet above sea level at the northern portion of the site near the marina. A seawall separates the site from the marina basin to the north. Exhibit 5.6-1 is a topographic survey map from B&E Engineers that shows the current topography of the project site.

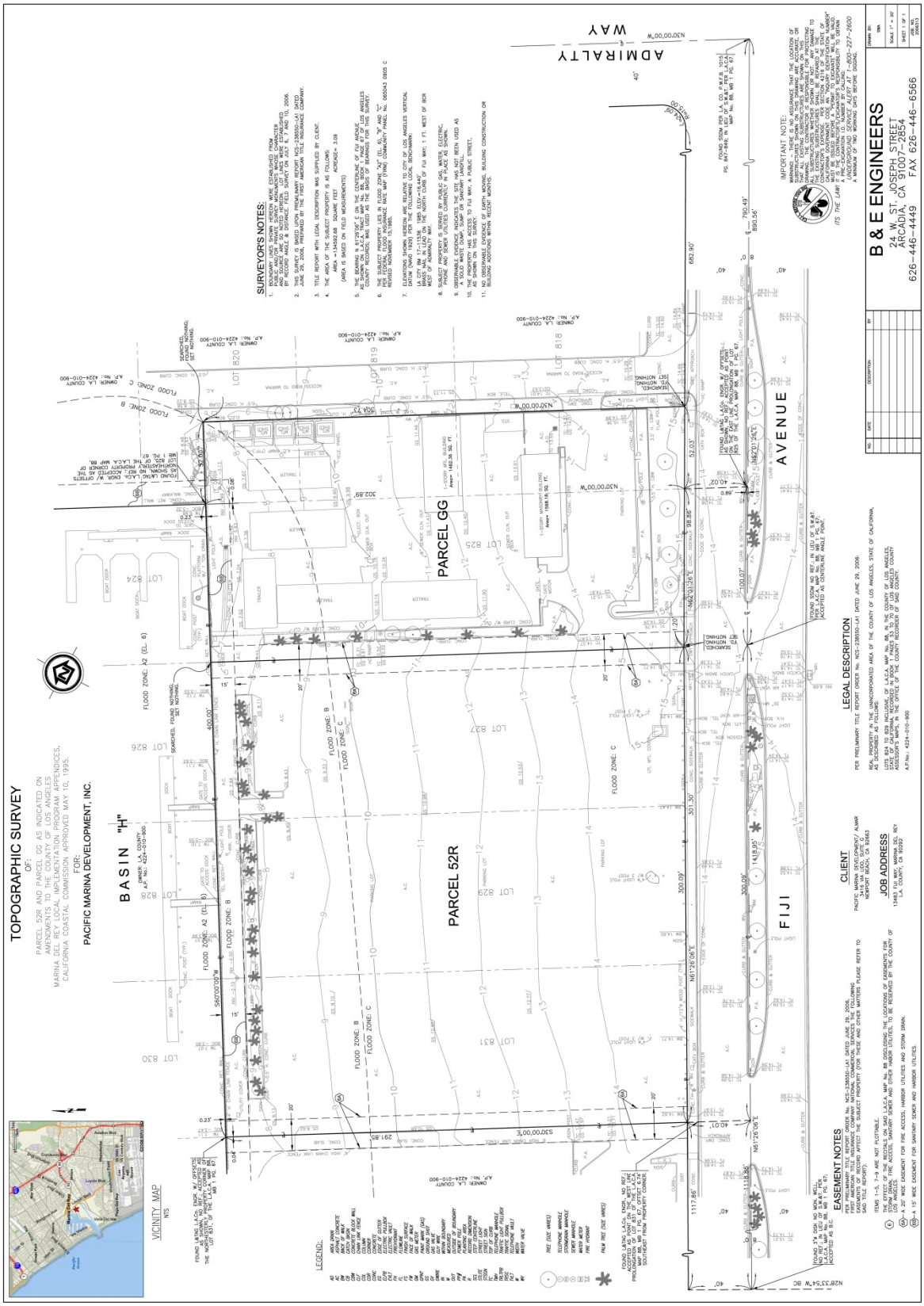


Exhibit 5.6-1 – Topographic Map

4. Tsunami and Seiche Events

A tsunami is a large sea wave formed by the earth's movement or eruption of a volcano. A seiche is a wave caused by a tsunami, landslide, or winds that oscillate on the surface of an enclosed or partially enclosed body of water. As detailed in the Geotechnical Investigation, the Los Angeles County Seismic Safety Element (1990), the site is located in a tsunamis hazard zone. According to recently prepared tsunami related inundation maps by the State of California, the maximum potential run-up height for the Marina del Rey area could be up to 15 feet. The County of Los Angeles has included the site within the limits of a Tsunami Inundation Zone, and the site could be subjected to the effects of a seismic sea wave. All areas adjacent to the coastline have the potential to be impacted by a tsunami or a seiche. Hazard Areas Policy 4 of the Marina del Rey Land Use Plan requires that marina and harbor facilities "continue to be designed and constructed so as to reduce the potential impacts of tsunamis."[23] The Land Use Plan states that "Public Works considers the developed portion of the Marina del Rey LCP area as reasonably free of flood hazards".[24]

The Land Use Plan further states: "While low lying areas are statistically endangered by tsunami, they are isolated from the shoreline by distances of from 1,500 feet to 6,000 feet and are not considered directly exposed to tsunami hazard. The Marina del Rey Small Craft Harbor has sustained only minor damage in the past due to tsunami and seiche because of special design standards …."[24] While the risk of tsunami and seiche events is low, it is recognized that the site is in a Tsunami Inundation Zone.

5. Sea Level Rise and Flood Zones

Sea level rise is associated with the effects of global warming and climate change. Climate change is predicted to result in a rise in sea level. The sea level rise for California has been 3 to 8 inches in the last century (Calif. Air Resources Board 2003). It is not currently possible to determine if and how sea level rise will impact the proposed project. The project site falls within Flood Zone Designations in the Federal Emergency Management Agency (FEMA) Flood Rate Insurance Map (FIRM) (U.S. Department of Homeland Security, FEMA). The project site is within two flood hazard zones as delineated on FIRM Number 06037 C1752F effective 9/26/08. The waterside portion of the project is within Flood Zone AE. The landside portion of the site is within Flood Zone X. The southerly two-thirds of the site is outside the 0.2% annual chance flood plain. FEMA Flood Zone designation AE means that a base flood elevation has been determined for what FEMA calls a "100-year flood event." In this case the base flood elevation that has been determined is approximately 9.5 feet above mean sea level. Mandatory flood insurance purchase requirements apply in this area. The Zone AE designation is driven by the possibility of a tsunami inundation and not by runoff from a 100-year rainfall.

[23] LUP, §C.10.e, p 10-6
[24] LUP, §C.10.d, p 10-5

Flood Zone X is an area identified in the community flood insurance studies as having moderate or minimal hazard from the principal source of flood in the area. Flood insurance is not required for Zone X. Flood Zones AE and X are depicted and explained in Exhibit 5.6-2, Exhibit 5.6-3, and Exhibit 5.6-4.

Hazard Areas Policy 4 of the Marina del Rey Local Coastal Program requires that "marina and harbor facilities continue to be designed and constructed so as to reduce the potential impacts of tsunamis" [25] and in doing so, the proposed project will also reduce the potential impacts from sea level rise that may or may not occur during the life of the project.

6. Ballona Wetlands Restoration

The California Department of Fish and Game and the California State Lands Commission own the 600 acres of remaining Ballona Wetlands near the project site. A planning process was underway for the restoration of the Ballona Wetlands. The restoration process is currently on hold due to funding issues. The California Coastal Conservancy is funding the planning and restoration of the wetlands. The Ballona Wetlands Restoration Feasibility Report presents five preliminary restoration alternatives for the wetlands, each of which is summarized briefly below. Exhibit 5.6-5 below shows where Areas A, B and C are located within the Ballona Wetlands.

a. Preliminary Alternative 1

This alternative proposes very little change compared to currently existing conditions at the wetlands. This alternative provides enhancement of upland habitats. Area A would include enhanced upland, a transition zone, seasonal wetland, and a tidal low marsh and channel. The existing tidal connection to Basin H in Marina Del Rey would be retained. An area of freshwater marsh in the southeast portion of Area B would be converted to muted tidal marsh. In Area A the currently existing dune habitat, constructed freshwater marsh and recreational facilities will be retained.

b. Preliminary Alternative 2

This alternative includes the creation of fully tidal channels, low marsh and mid-high salt marsh. The tidal connection to Marina del Rey under Dock 52 would be altered by the creation of an open culvert with a cross-sectional area of 100 square feet. This would create a full tidal marsh in Area A. An area of freshwater marsh in the southeast portion of Area B will be converted to muted tidal marsh and a new fully tidal connection to Area B would be provided via a new culvert with a cross-section of 100 square feet. In Area C, Fiji Ditch would be altered to incrementally increase the fully tidal channel, low and mid-high marsh habitats and transition zone habitat.

[25] LUP, §C.10.e, p 10-6

c. Preliminary Alternative 3

This alternative creates additional estuarine habitat, further increase the tidal channel, low marsh and mid-high marsh habitats and transition zone habitat. In Area A the tidal connection under Dock 52 would be altered by creating an open culvert with a cross-sectional area of 160 square feet. In Area B Culver Boulevard, Jefferson Boulevard, and the Gas Company road would be raised on levees or piles, providing hydraulic connectivity. In Area C there would be an increase in the fully tidal channel habitat and transition zone habitat compared to Alternative 2.

d. Preliminary Alternative 4

This alternative creates a shallow subtidal basin and increased intertidal mudflats. Greater hydraulic connectivity will occur because Culver Boulevard and the levee system south of Culver Boulevard would be raised on piles or a levee. Area A would have an increased tidal connection Under Dock 52 via the creation of an open culvert with a cross-sectional area of 500 square feet.

e. Preliminary Alternative 5

This alternative involves the creation of a fully tidal wetland. The Ballona Creek flood control channel levees would be removed and a sinuous natural creek and associated tidal basins would be created. All areas of the site would be interconnected. This alternative would be conducted in the following three phases. The first phase would involve lowering of the levees/surface elevations and excavation of the main channel in Area A. The second phase involves extension of the channel into Area B. The third phase involves raising Lincoln Boulevard and extending the channel into Area C.

It must be stressed that these are preliminary alternatives only and that to date no final decisions have been made regarding which alternative will be chosen. It is also a possibility that none of the alternatives discussed above will be chosen and that a different alternative will be chosen that is comprised of different facets of the five alternatives. Alternatives 2, 3, and 4 propose alteration of the tidal connection through the project site from Basin H to Area A of the wetlands. However, it is noted in the graphics for the alternatives that tidal connections can be placed at a range of locations south and east of the project site, along Fiji Way down to Ballona Creek. Please refer to the feasibility report and graphics for additional information.

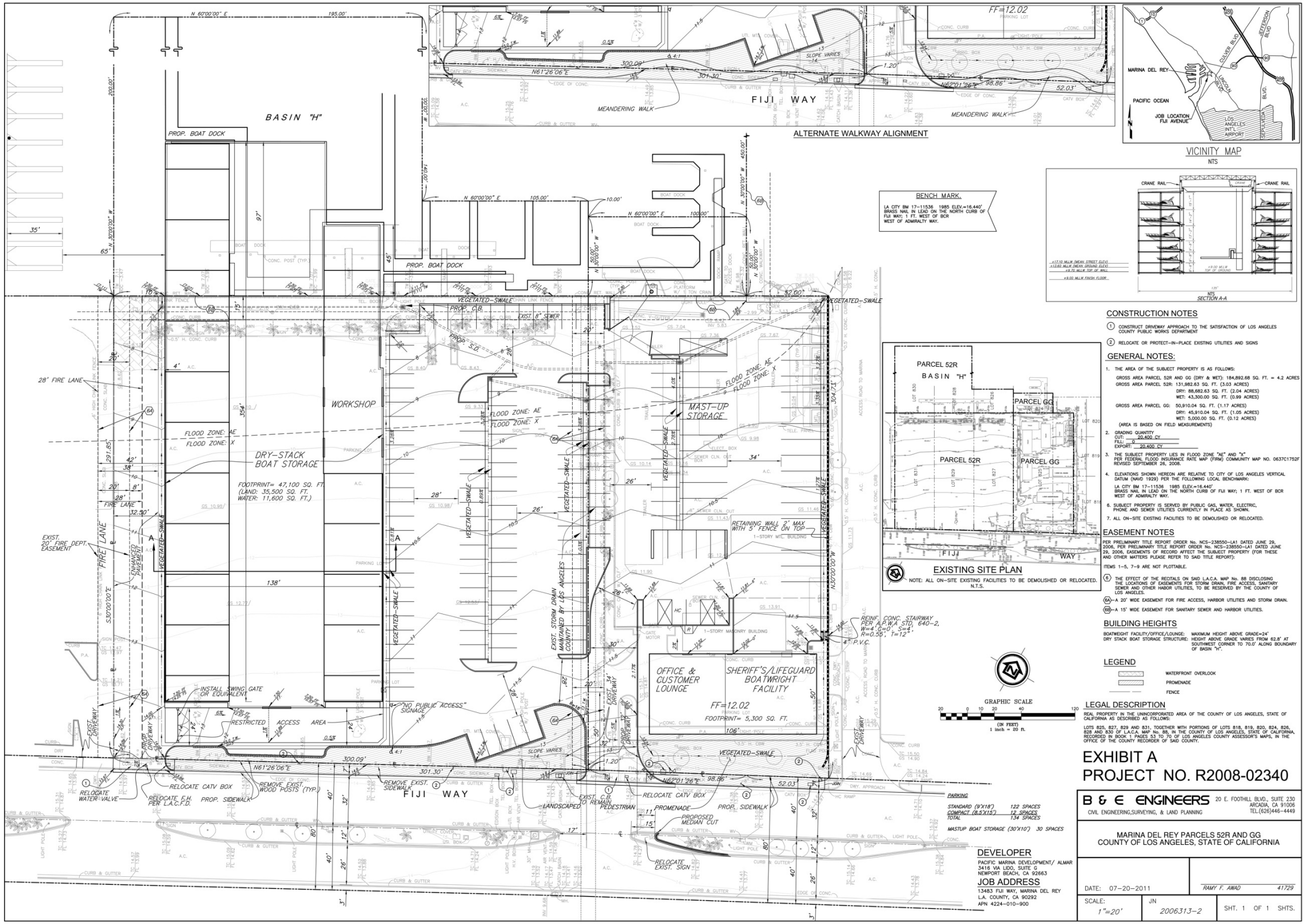


Exhibit 5.6-2 – FEMA Flood Zones

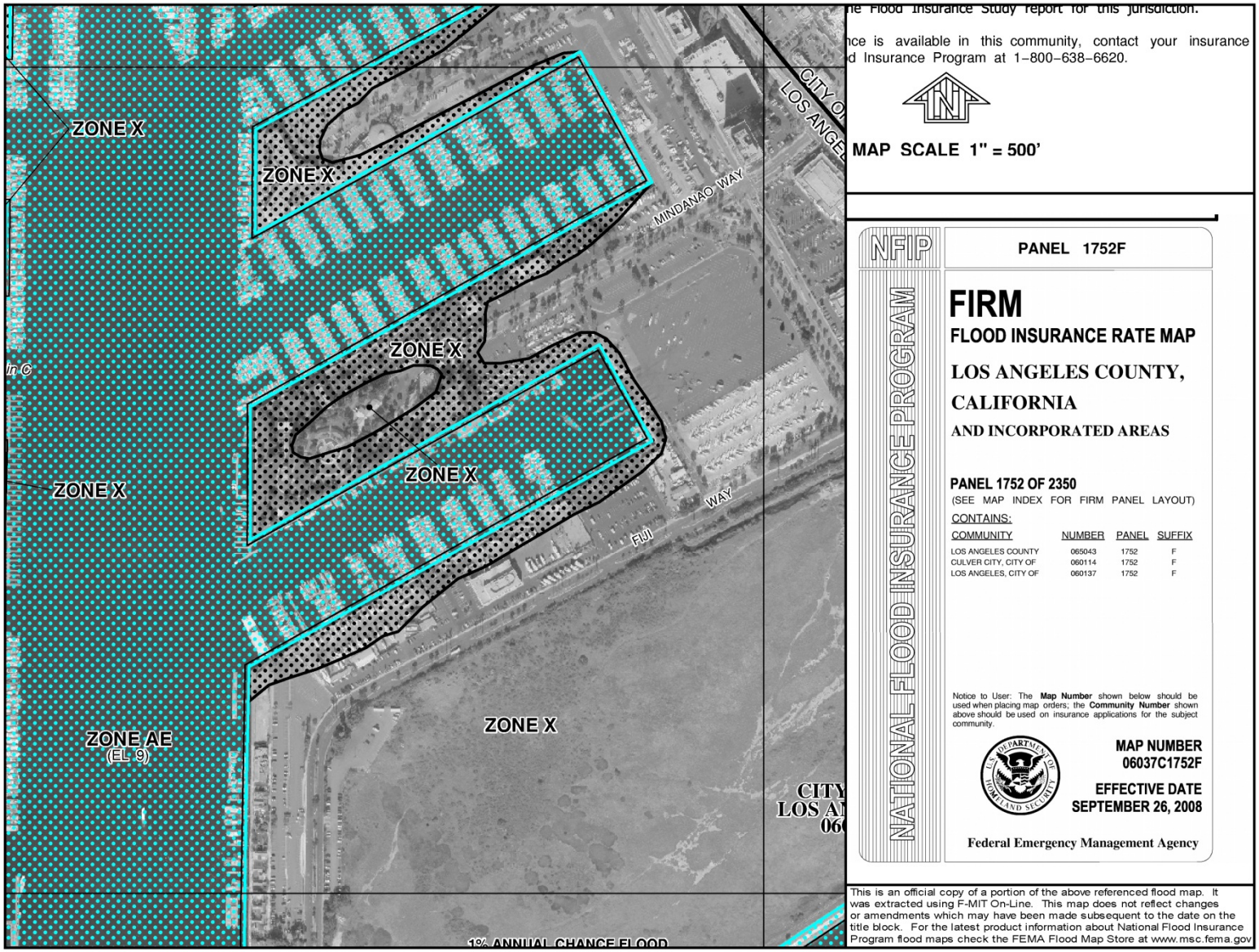


Exhibit 5.6-3 – Flood Insurance Rate Map (FIRM)

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

MAP NUMBER
06037C1752F

EFFECTIVE DATE
SEPTEMBER 26, 2008

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513 — Base Flood Elevation line and value; elevation in feet*
(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A Cross section line
23 — 23 Transect line
97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N — 1000-meter Universal Transverse Mercator grid values, zone 11
6000000 FT — 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Exhibit 5.6-4 – Flood Insurance Rate Map (FIRM) Legend

Exhibit 5.6-5 – Ballona Wetlands Restoration Project

5.6.2 Existing Regulatory Setting

This section summarizes federal and state regulations in place that pertain to the proposed project. Refer to the Water Quality Technical Report (Appendix H in this DEIR) for additional information.

1. Clean Water Act

The Clean Water Act (CWA) is regulated by the United States Environmental Protection Agency (EPA). The CWA was designed to restore and maintain the chemical, physical, and biological integrity of waters in the United States. In addition, the CWA provides the legal framework for the National Pollutant Discharge Elimination System (NPDES) permits, effluent limitations, water quality and pretreatment standards, anti-degradation policy, non-point source discharge regulation, and protection of wetlands.

The CWA required that the EPA establish regulations for permitting of municipal and industrial storm water dischargers under the NPDES permit program. The EPA's regulations require that municipal separate storm sewer system (MS4) discharges to surface waters be regulated by a NPDES permit. The CWA requires the states to adopt water quality standards for receiving water bodies and to have those standards approved by the USEPA.

2. Federal Antidegradation Policy

Under the federal Antidegradation Policy, states must develop statewide anti-degradation policies and identify methods for implementing them. State anti-degradation policies and implementation methods shall, at a minimum, protect and maintain: 1) existing in-stream water uses; 2) existing water quality where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and 3) water quality in waters considered an outstanding national resource.

3. California Porter-Cologne Act

This act is embodied in the California Water Code (CWC) and established the principal California legal and regulatory framework for water quality control. This act establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product. Under the CWC, the State of California is divided into nine regions governed by regional water quality control boards (RWQCBs) that implement and enforce provisions of the CWC and the CWA. The project site is located in Region 4, the Los Angeles Region, and is governed by the Los Angeles Regional Water Quality Control Board (LARWQCB). The Porter-Cologne

Act requires each RWQCB to formulate and adopt a water quality control plan (Basin Plan).

4. Basin Plan

The LARWQCB adopts and periodically amends the water quality control plan (also referred to as the Basin Plan). The Basin Plan for the project area is entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties." To implement state and federal law, the Basin Plan establishes beneficial uses for surface water and groundwater in the region, sets forth narrative and numeric water quality standards to protect those beneficial uses, and includes implementation provisions, programs, and policies. The Marina del Rey harbor receives surface runoff from the project site. The existing beneficial uses are summarized briefly below. Refer to the Water Quality Technical Report (Appendix H in this DEIR) for additional information.

- Navigation - Includes navigational uses for shipping, travel or other transportation.
- Recreation - Water contact recreational activities involving contact with the water (e.g., swimming, wading, surfing, fishing). Recreation also includes activities that bring people in proximity to water but do not normally involve contact with water (e.g., boating, beach combing, sightseeing).
- Commercial - Commercial and sport fishing activities include recreational collection of fish and shellfish and involve the collection of organisms for human consumption or as bait.
- Marine Ecosystems - Water uses that support marine ecosystems, including preservation/enhancement of marine habitats, vegetation, fish, shellfish, or wildlife.
- Wildlife - Uses that support wildlife and terrestrial ecosystems, including preservation and enhancement of terrestrial habitats, vegetation and wildlife.
- Shellfish - Water uses that support habitats suitable for the collection of filter-feeding shellfish such as clams, oysters and mussels for human consumption.

The Basin Plan also establishes the narrative and numeric water quality objectives of the project receiving waters. Water quality objectives for Inland Surface Waters apply to enclosed bays and estuaries in the Region (including the Marina del Rey harbor). Water quality objectives in the Basin Plan apply within the receiving water and are not directly applicable to runoff in the storm sewers.

5. California Toxics Rule

The United States EPA promulgated the California Toxics Rule (CTR) which established numeric water quality criteria for certain toxic substances in California surface waters. The CTR establishes acute (short-term) and chronic (long-term) standards for water bodies that are designated by the LARWQCB as having beneficial uses protective of aquatic life or human health, such as the Marina del Rey harbor. CTR criteria are strictly applicable to the receiving water body and not to the project area discharges to the storm sewer.

6. Clean Water Act Section 303(d) - Total Maximum Daily Loads

When designated beneficial uses of a particular receiving water body are being compromised by poor water quality, Section 303(d) of the Clean Water Act requires that water body to be listed and identified as "impaired." A Total Maximum Daily Load (TMDL) must be developed for the pollutant(s) impairing the water body. A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (plus a "margin of safety"). Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

In 2002, Marina del Rey back basins D, E, and F were listed on the Section 303(d) list of impaired water bodies. The back basins were listed as impaired by a variety of sources such as toxics (e.g., metals and legacy pesticides), sediment toxicity, fish consumption advisory, and high coliform count. Two TMDLs have been prepared and adopted by the LARWQCB. The TMDLs pertain to areas in the Marina del Rey back basins that are not directly adjacent to the project site, however the TMDLs list urban runoff as a contributing source of impairing pollutants. Due to the proximity of the project to the back basins, pollutants of concern for the project area runoff include coliform bacteria and toxics.

In March 2004, a Basin Plan amendment for coliform bacteria TMDLs became effective for Marina del Rey Mothers Beach and the back basins. The primary source of bacteria in the back basins is discharge from the storm drain system. A TMDL implementation plan was prepared by the Marina del Rey Watershed Responsible Agencies. In March 2006, a Basin Plan amendment for toxics TMDLs in the back basins of Marina del Rey became effective. Storm water runoff was the source of metals, legacy pesticides, and PCBs in the back basins D, E, and F of the Marina del Rey harbor.

In March 2007, a Coordinated Monitoring Plan was developed by the County of Los Angeles Technical Committee Chair. The most recent 303(d) list of impaired water bodies does not include any listings for Marina del Rey harbor, because once a TMDL is developed and adopted into the Basin Plan, the water quality limited section is removed from the 303(d) list.

7. Los Angeles County Municipal Separate Storm Sewer Systems Permit

Storm water discharges from municipal separate storm sewer systems (MS4s) are regulated by the state's Municipal Storm Water Permitting Program. In 2001, the LARWQCB issued an NPDES Permit and Waste Discharge Requirements (Order No. 01-182) under the Clean Water Act and the Porter-Cologne Act for discharges of urban runoff in public storm drains in Los Angeles County. In September of 2006 the Permit was amended. The permittees are the Los Angeles County cities (including the City of Los Angeles) and the County (collectively "the Co-Permittees"). To implement the requirements of the NPDES permit, the Los Angeles County Co-Permittees have developed development planning guidance and control measures that control and mitigate storm water quality and quantity impacts to receiving waters as a result of new development and redevelopment.

8. Storm Water Quality Management Program

The Los Angeles County MS4 Permit requires the co-permittees to implement a Storm Water Quality Management Program (SQMP), which summarizes the program components the co-permittees will implement to comply with the Permit. The objective of the SQMP is to reduce pollutants in urban storm water discharges to the maximum extent practicable (MEP) in order to attain water quality objectives and to protect the beneficial uses of receiving waters in Los Angeles County.

Refer to the Water Quality Technical Report (Appendix H) for additional information regarding special provisions in the Los Angeles MS4 Permit for implementation of the SQMP.

In November 2008, the Los Angeles County Board of Supervisors adopted by ordinance an amendment to Title 12 (Environmental Protection), Title 21 (Subdivisions), and Title 22 (Planning and Zoning) of the Los Angeles County Code to establish low impact development (LID) standards for developments constructed after January 1, 2009. The ordinance does not apply to project applications that were deemed complete prior to the January 1, 2009 effective date. The ordinance established LID standards to distribute storm water and urban runoff across development sites to help reduce adverse water quality impacts and replenish groundwater supplies. An LID Standards Manual was developed incorporating principles and technologies for achieving the LID standards established by the County.

The proposed project is not subject to the specific LID standards outlined in the ordinance since application was made and deemed complete prior to the Ordinance effective date. However, the project includes water quality best management practices and project design features, and is required to comply with all regulatory and permitting requirements to minimize impacts to water quality for project construction and operation. Mitigation measures specifically address storm water and urban runoff control in order to reduce potential impacts to less than significant.

9. Standard Urban Storm Water Mitigation Plan

In March 2000 the LARWQCB approved the County planning program requirements as part of the MS4 program to address storm water pollution from redevelopment and new construction. Standard Urban Storm Water Mitigation Plan (SUSMP) requirements are included in the development planning program. The SUSMP contains a list of minimum Best Management Practices (BMPs) that must be employed to infiltrate or treat storm water runoff, control peak flow discharge, and reduce the post-project discharge of pollutants from storm water conveyance systems. The Manual for the Standard Urban Storm Water Mitigation Plan (the Manual), produced by the County of Los Angeles, details the requirements for new development and significant redevelopment BMPs. The Manual is a model guidance document for use by Permittees and individual project owners to select post-construction BMPs and otherwise comply with the SUSMP requirements. It addresses water quality and drainage issues by specifying design standards for structural or treatment control BMPs that infiltrate or treat storm water runoff and control peak flow discharge. The following documents contain treatment BMPs and guidance regarding design criteria: the Los Angeles County MS4 Permit, the Manual, and the Technical Manual for Storm Water Best Management Practices in the County of Los Angeles (issued in February of 2004) by the Department of Public Works. Refer to the Water Quality Technical Report for detailed information regarding SUSMP requirements and BMPs. The SUSMP includes general design specifications for individual project categories. The project categories that are germane to the proposed project are: commercial developments and parking lots. Commercial developments must have properly designed loading and unloading dock areas, repair and maintenance bays, and vehicle equipment wash areas. Parking lots have to be properly designed to limit oil contamination and have regular maintenance of parking lot storm water treatment systems (e.g., storm drain filters and biofilters).

10. Local Coastal Program

The California Coastal Commission (CCC) regulates development and water resources in the Coastal Zone. The proposed project is located in a Coastal Zone; thus, a coastal development permit must be obtained from the County (under authority delegated by Coastal Commission through the certification of the Local Coastal Program (LCP)). The Marina del Rey LCP guides development in the coastal zone and includes a land use plan and specific measures and policies to address water quality. The Marina del Rey LCP was certified in 1990 by the Coastal Commission and was updated in 1996. The Marina del Rey LCP has been reviewed by the Coastal Commission, which conducts periodic reviews of all LCPs to determine if the certified LCP is being effectively implemented in conformity with the policies of the Coastal Act. The CCC completed its recommendations in April 2009 and adopted its Revised Findings modifications. The County was given until April 2010 to formally respond to the Coastal Commission staff's recommendations and has submitted its response. The CCC approved the County recommendations, with modifications, at its November 3, 2011 meeting.

11. Construction Permits

Pursuant to Section 402(p) of the Clean Water Act, the State Water Resources Control Board (SWRCB) has issued a statewide general NPDES Permit and Waste Discharge Requirements for storm water discharges from construction sites. Discharges of storm water from construction sites that have one or more acres of disturbed area are required to either obtain individual NPDES permits for storm water discharges or be covered by the Construction General Permit. In order to be covered under the Construction General Permit, a completed Notice of Intent must be filed with the SWRCB. Each applicant under the Construction General Permit must ensure that a Storm Water Pollution Prevention Plan (SWPPP) is prepared prior to grading and that the SWPPP is implemented during construction. The primary objective of the SWPPP is to identify, construct, implement, and maintain BMPs to reduce or eliminate pollutants in storm water discharges. The SWPPP also applies to authorized non-storm water discharges from the construction site during the construction process.

12. General Waste Discharge Requirements

A General NPDES Permit and General Waste Discharge Requirements (WDRs) have been issued by the LARWQCB that govern construction-related dewatering discharges (the "General Dewatering Permit.") This permit addresses discharges from temporary dewatering operations (associated with construction) and permanent dewatering operations (associated with development). The discharge requirements include provisions mandating notification, sampling and analysis, and reporting of dewatering and testing-related discharges. Construction-related activities are authorized by the General Dewatering Permit so long as all conditions of the permit are fulfilled.

5.6.3 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles has not adopted thresholds of significance for hydrology and water quality. Thus, for purposes of this analysis, the applicable thresholds listed in CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact with respect to hydrology and water quality if it would:

a) Violate any water quality standards or waste discharge requirements

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner which would result in substantial erosion or siltation on or off site

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff

f) Otherwise substantially degrade water quality

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam

j) Cause inundation by seiche, tsunami, or mudflow

As detailed in the Water Quality Technical Report, thresholds of significance for surface water quality impacts have been developed based on a review of the Los Angeles County MS4 Permit and the CEQA Guidelines, Appendix G. Significant adverse water quality impacts are presumed to occur if the proposed project in the construction or post-development phase would:

- Cause or contribute to the exceedance of water quality standards and objectives or waste discharge requirements, or otherwise substantially degrade water quality.
- Create pollution[26], contamination[27], or conditions of nuisance[28] in receiving waters.

[26] "Pollution" is defined in §13050 of the California Water Code as "an alteration of the quality of the waters of the state to a degree, which unreasonably affects either of the following: 1) the waters for beneficial uses or 2) facilities which serve these beneficial uses. Pollution may include contamination."

[27] "Contamination" is defined in §13050 of the California Water Code as "an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. Contamination includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected."

[28] "Nuisance" is defined in §13050 of the California Water Code as "anything which meets all of the following requirements: 1) is injurious to health, or is indecent or offensive to the senses or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; 2) affects at the same time an entire

The Water Quality Technical Report analyzed whether the project may result in polluted runoff. Any increases in pollutant concentrations/loads in runoff resulting from project development are considered an indication of a potentially significant adverse impact to water quality. If loads/concentrations resulting from development are predicated to stay the same or to be reduced when compared with existing conditions, it is concluded that the project will not have a significant adverse impact to the ambient water quality of the receiving waters for that pollutant.

5.6.4 Impacts Analysis

The Water Quality Technical Report analyzed whether polluted runoff may result from the project based on the results of water quality modeling and qualitative assessments that take into account water quality controls or BMPs that are considered Project Design Features (PDFs). An increase in concentrations/loads in runoff from the development of the proposed project is considered an indication of a potentially significant adverse water quality impact (especially if the constituent is on the 303(d) list or has a TMDL). If loads and concentrations from proposed development are predicted to stay the same or be reduced (when compared with existing conditions), a conclusion will be made that the proposed project would not cause a significant adverse impact to the ambient water quality of the receiving waters for that pollutant.

Prior to discussing the impacts of the proposed project, it is necessary to provide background information regarding surface water pollutants of concern, project design features, and BMPs that will improve water quality. In addition, there is a discussion of the water quality model that was used to estimate pollutant loads and concentrations in storm water runoff.

1. Tsunami and Seiche Events

As detailed in the Geotechnical Investigation by Van Beveren and Butelo, the County of Los Angeles has included the site within the limits of a Tsunami Inundation Zone and the site could be subjected to the effects of a seismic sea wave, the maximum potential runup height for the Marina del Rey area could be up to 15 feet. The proposed project will not change the height of the existing bulkhead. As described in the Marina del Rey Land Use Plan, "no existing proposals are known which would provide protection to physical structures"[29] from a tsunami. However, appropriate building techniques will be implemented to minimize the impact of a tsunami or seiche on the project site. Maintenance of a seawall on-site will reduce potential impacts of a tsunami or seiche. Tsunamis ranging in size from three to five feet have been reported along the coast of California after large earthquakes in the Pacific Rim; however, large destructive tsunamis (such as those caused by the earthquake in the

community of neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) occurs during, or as a result of, the treatment or disposal of wastes."

[29] LUP, §C.10.c p10-4

Indian Ocean in 2004 and Japan in 2011) are extreme events.[30] No mitigation measures are anticipated as a result of tsunami and seiche events on the project site. However, project design features have been incorporated into the dry stack boat storage structure that accommodate inundation up to elevation 9.0 feet above sea level.

2. Sea Level Rise and Flood Zones

A portion of the project site is located within the AE flood zone. However, requirements contained in 44 CRF §60.3(c)10 – specifically that no new construction be allowed until a regulatory floodway is designated – should not apply to this project, because the portion of the building within the AE zone will be designed to allow any inundation up to elevation of approximately 9.5 feet above sea level to equalize on each side of the building footings. This methodology is consistent with FEMA Technical Fact Sheet 2(g) (page 8). The project design complies with FEMA requirements relative to construction of new structures within the AE zone and no impacts will occur as a result of sea level rise or flooding. No mitigation measures are required.

3. Surface Water Pollutants of Concern

The Standard Urban Storm Water Mitigation Plan (SUSMP) Manual defines Pollutants of Concern as consisting of any pollutants that exhibit one or more of the following characteristics: current loadings or historic deposits of the pollutant are impacting the beneficial uses of a receiving water, elevated levels of the pollutant are found in sediments of a receiving water and/or have the potential to bioaccumulate in organisms therein, or the detectable inputs of the pollutant are at concentrations or loads considered potentially toxic to humans and/or flora and fauna. The project's surface water pollutants of concern are those that are anticipated to be or could potentially be generated by the proposed project at concentrations that would cause harmful effects to the waters receiving the pollutants.

Several factors were taken into consideration in identifying the project's pollutants of concern. Criteria used to select the Project pollutants of concern were: the proposed land use; the beneficial uses of the receiving waters as designated in Basin Plan; the water quality objectives of the receiving waters including the CTR criteria; and the adopted TMDLs in the Marina del Rey harbor. As detailed in the Water Quality Technical Report, the selected pollutants of concern are total suspended solids (TSS), trace metals (copper, lead and zinc), legacy pesticide (chlordane), PCBs, pathogen indicators (fecal coliform bacteria), petroleum hydrocarbons (oil and grease), trash and debris, and nutrients. The pollutants of concern are discussed in more detail below.

[30] Marina del Rey Periodic LCP Review, Revised Staff Recommendation, December 24, 2007, p 181

a. Total Suspended Solids

Sediments are a pollutant of concern for the proposed project because they are a common constituent in urban runoff and can transport other pollutants (such as metals, organic compounds) and toxic pollutants, that have been identified as causing impairment or beneficial uses in Marina del Rey back basins.

b. Trace Metals

Trace metals (such as copper, lead, and zinc) are the most prevalent metals in urban runoff. The primary sources of trace metals in storm water runoff include commercially available metals and metals from fuels, paints and other coatings. In addition, boats in Marina del Rey use anti-fouling paints, which leach carbon into the water. As detailed in the Water Quality Technical Report, copper may be of particular concern for the project since boats are stored and washed on-site. Copper, lead and zinc were included in the TMDL adopted in 2005 for the back basins. Urban storm water runoff is identified in the toxics TMDL report as the primary point source of metals in the Marina del Rey harbor.

c. Legacy Pesticide Chlordane

Pesticides are chemical compounds that are used to control insects, rodents, weeds, and plant diseases. The active ingredients in pesticides can reach toxic levels when pesticides are applied excessively. Organochlorine pesticides (such as chlordane, DDT, and dieldrin) were banned in the United States because they bioaccumulated. Due to the tendency of organochlorine to persist in the environment, they continue to impair water in the Marina del Rey back basins. In 2002, chlordane, DDT and dieldrin were included on the CWA Section 303(d) list of impaired water bodies for the Marina del Rey back basins. Chlordane was listed for sediment toxicity and for fish consumption advisory. A toxics TMDL for chlordane was adopted for the Marina del Rey back basins in 2005. Chlordane is the only legacy pesticide included in the TMDL because several of the legacy pesticides were delisted between Section 303(d) listing in 2002 and the toxics TMDL adoption in 2005. The toxics TMDL report assumes the only source of chlordane to the harbor is storm water runoff with sediment particles that have chlordane attached.

d. PCBs

PCBs are toxic persistent chemicals that are no longer produced in the United States but that have been historically released into the environment from industrial sources (such as transformers). PCBs can still be detected in urban runoff because they were historically used and because they have the ability to persist in the environment and to absorb to sediment. The toxics TMDL for the back basins includes restrictions on PCB levels in fish tissue. The toxics TMDL report identifies the source of PCBs in the Marina del Rey back basins as storm water runoff.

e. Pathogens

Human pathogens (such as bacteria, viruses, and protozoa) in receiving waters are usually caused by the transport of fecal wastes from domestic animal, wildlife or humans. Coliform bacteria are used as an indicator organism of human pathogens due to both the difficulty and cost of directly measuring the presence of human pathogens. Coliform bacteria are a pollutant of concern for the proposed project because they are commonly detected in urban runoff and because indicator bacteria are an impairing pollutant in Marina del Rey back basins. As identified in the TMDL report, dry and wet weather urban runoff is the primary point source of indicator bacteria in the Marina del Rey harbor. In addition, nonpoint sources include boat discharges, washing of boat slips and boat decks, swimmer washoff and natural sources (birds and wildlife).

f. Petroleum Hydrocarbons

Both the existing and proposed land uses on-site are potential sources of grease, oil and other petroleum hydrocarbons. Hydrocarbons can be measured as total petroleum hydrocarbons, oil and grease, or as individual hydrocarbons. Potential sources of petroleum hydrocarbons include: spillage of lubricants and fuels, runoff from the road and parking area, runoff from the boat washing area, discharge of domestic and industrial wastes, leachate from asphalt roads, tire wearing, atmospheric deposition, and deposition from automobile exhaust. Petroleum hydrocarbons, such as polycyclic aromatic hydrocarbons (PAHs) are toxic to aquatic life at low concentrations because they can bioaccumulate in aquatic organisms from contaminated water, sediments, and food.

g. Trash and Debris

Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic debris (such as leaves, grass cuttings, and food waste) are general waste products that exist in urban areas and that can be entrained in urban runoff. Trash and debris have the capacity to significantly impact aquatic habitat and the recreational value of a water body. In excess, organic matter can lower the quality of water in a water body due to the creation of high biochemical oxygen demand. In areas with stagnant water, excess organic matter can cause undesirable organisms to grow via the promotion of low oxygen (anoxic) conditions, resulting in the release of odorous and hazardous compounds (such as hydrogen sulfide).

h. Nutrients

Nutrients are inorganic forms of nitrogen (nitrate, nitrite and ammonia) and phosphorous. Nutrients are biostimulatory substances that can cause excessive or accelerated growth of vegetation, such as algae, in receiving waters. Excessive nutrient input causes eutrophication, which can lead to changes in algae, benthic, and fish communities. Surface algal scum, water discoloration, and the release of toxins from sediment can also occur. Nutrients (nitrogen forms, phosphorus) are pollutants of

concern for the proposed project because they are common in storm water runoff from urban areas. Nutrient sources in urban runoff mainly contain fertilizers but other sources include pet waste, failing septic systems, restaurant facility washouts, and atmospheric deposition from industry and automobile emissions.

i. Other Surface Water Constituents

The Basin Plan lists other surface water constituents that are either analyzed through indicator pollutants, or are not considered to be pollutants of concern for the project. The Water Quality Technical Report discusses the following water constituents in detail with regards to why they are not separately analyzed as surface water pollutants of concern: biochemical oxygen demand (BOD) and dissolved oxygen; pesticides; temperature; color, taste, and odor; methylene blue activated substances (MBAS); pH; radioactive substances and toxicity. Refer to the Water Quality Technical Report (Appendix H in this DEIR) for additional information regarding these pollutants.

1) Biochemical Oxygen Demand and Dissolved Oxygen

Adequate levels of dissolved oxygen are necessary to support aquatic life. High levels of oxygen demanding substances discharged to receiving waters can depress oxygen levels to levels below standards. The presence of oxygen-demanding substances can deplete oxygen supplies in waters. Nutrients in fertilizers and food wastes in trash are examples of oxygen-demanding compounds that may be present on the project site. Other biodegradable organic materials include human and animal waste and vegetative matter. Biodegradable pollutants are largely encompassed within the nutrients and trash and debris categories, and therefore are not be analyzed as a separate category.

2) Pesticides

Legacy pesticides (chlordane) adsorbed to soil particles have been listed as pollutants of concern above. Currently legal pesticides could potentially be used on the project site in that landscaping on-site could be treated with an application of pesticides. It is assumed that any application of pesticides would be conducted by licensed handlers in accordance with manufacturer instructions. Source control BMPs would be implemented in accordance with SUSMP requirements, including the proper storage and usage of pesticides, planting of native and drought tolerant plants that would reduce the need for pesticide usage, and the use of smart irrigation systems that would reduce the potential for overwatering and runoff from landscape areas. Therefore, pesticides (other than the legacy pesticide chlordane) are not pollutants of concern for the project.

3) Temperature

Increases in water temperature can stimulate algal growth, which causes algal blooms and decay that can result in lower dissolved oxygen levels. Lower

dissolved oxygen levels can impair habitat and other beneficial uses of receiving waters. Discharges of wastewater can also cause unnatural and/or rapid changes in temperature of receiving waters, which can adversely affect aquatic life. Elevated temperatures are typically associated with discharges of process wastewaters or non-contact cooling waters. Since the project will not generate process wastewater or cooling waters, temperature is not considered a pollutant of concern for the project.

4) Color, Taste, and Odor

The Basin Plan contains objectives for color, taste, and odor that causes a nuisance or adversely affects beneficial uses. Undesirable tastes and odors in water may indicate that pollutants are present. Odor from water can be caused by decomposition of organic matter or the reduction of inorganic compounds, such as sulfate. Other potential sources of odor causing substances, such as heavy industrial processes, will not occur as part of the project. Color in water may arise naturally, such as from minerals, or algae, or may be caused by industrial pollutants. The project does not include heavy industrial land uses. Therefore, color-, taste-, or odor-producing substances are not pollutants of concern for the project.

5) Methylene Blue Activated Substances

Methylene blue activated substances (MBAS) are related to the presence of detergents in water. Positive results may indicate the presence of wastewater or be associated with urban runoff due to commercial and/or residential vehicle washing or other outdoor washing activities. The boat wash area that is a component of the project will comply with design requirements to discharge to the sanitary sewer system, and will not discharge to the storm water system or the harbor. On this basis, MBAS is not considered a pollutant of concern for the project.

6) pH

pH is a measure of the extent to which water will act as an acid or a base. The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. pH affects the solubility of certain toxic chemicals (e.g., some metals) and therefore aquatic organisms can be highly sensitive to pH. pH in the receiving waters is not expected to be affected by runoff discharges from the project.

7) Radioactive Substances

Radioactive substances typically occur at very low concentrations in natural waters. Some industrial activities (e.g., energy production, fuel reprocessing) can increase the amount of radioactive substances impairing beneficial uses. The project will not have activities that would be a source of any radioactive

substances. Therefore, radioactive substances are not a pollutant of concern for the project.

8) Toxicity

Certain pollutants in storm water runoff have the potential to be very toxic to aquatic organisms. Toxicity in urban runoff could be caused by ammonia, trace metals, PAHs, or pesticides, as indicated in the back basins TMDL. These constituents are addressed by the pollutants of concern categories above, and are therefore adequately represented by those categories.

4. Proposed Drainage

Exhibit 5.6-6 is a graphic prepared by B&E Engineers that shows the proposed drainage plan for the project. As described in the Water Quality Technical Report, vegetated swales will be located in the parking lot medians and along the perimeter of the parking lot. These swales will be designed to serve as the storm water treatment facilities for the project site. Runoff from the parking areas, the visitor reception facility, and the dry stack boat storage structure will be directed into the vegetated swales. The swales will convey runoff water to catch basins similar to those shown in Exhibit 5.6-7 (page 5-170, which will further treat runoff from the project site. All catch basins will be connected to storm drain systems that outlet into the existing 7′3″ x 8′6″ box culvert mentioned in Section 5.6.1, subsection 2 (Current Drainage).

The proposed boat wash area will be surrounded by a curb to prevent any storm water runoff from adjacent areas from entering the collection sump (see Exhibit 5.6-8 – Boat Washdown Area, page 5-171). Water from normal boat washing operations will drain into the existing sanitary sewer located along the bulkhead. During a storm, runoff from the boat wash area will be diverted to an overflow pipe in the rain diversion system (see Exhibit 5.6-8). This small amount of runoff will be treated with filters similar to that shown in Exhibit 5.6-7 – Catch Basin (page 5-170).

The proposed drainage plan does not alter the configuration of the existing concrete box storm drain/tidal channel that crosses the project site. Therefore, the project will not alter existing drainage patterns and tidal flows to off-site vacant area south of Fiji Way (Area A).

a. Receiving Water Benchmarks

The receiving water quality criteria (both numeric and narrative) provided in the Basin Plan, the TMDLs, and the CTR apply only to receiving waters. These do not apply to storm water and non-storm water runoff from the project site because these are considered to be end-of-pipe discharges. Predicted water quality concentrations in runoff from the project site can be compared to water quality benchmarks. These benchmarks allow for an analysis of the project's potential to exceed receiving water quality standards, adversely affect beneficial uses, or otherwise degrade receiving waters. If water quality concentrations from project runoff are below receiving water

quality standards, then beneficial uses are not adversely affected and water quality is not otherwise degraded by runoff from the project site. It is not anticipated that pollutant levels from the project will exceed the water quality benchmarks. Therefore, no significant impacts will result from project implementation.

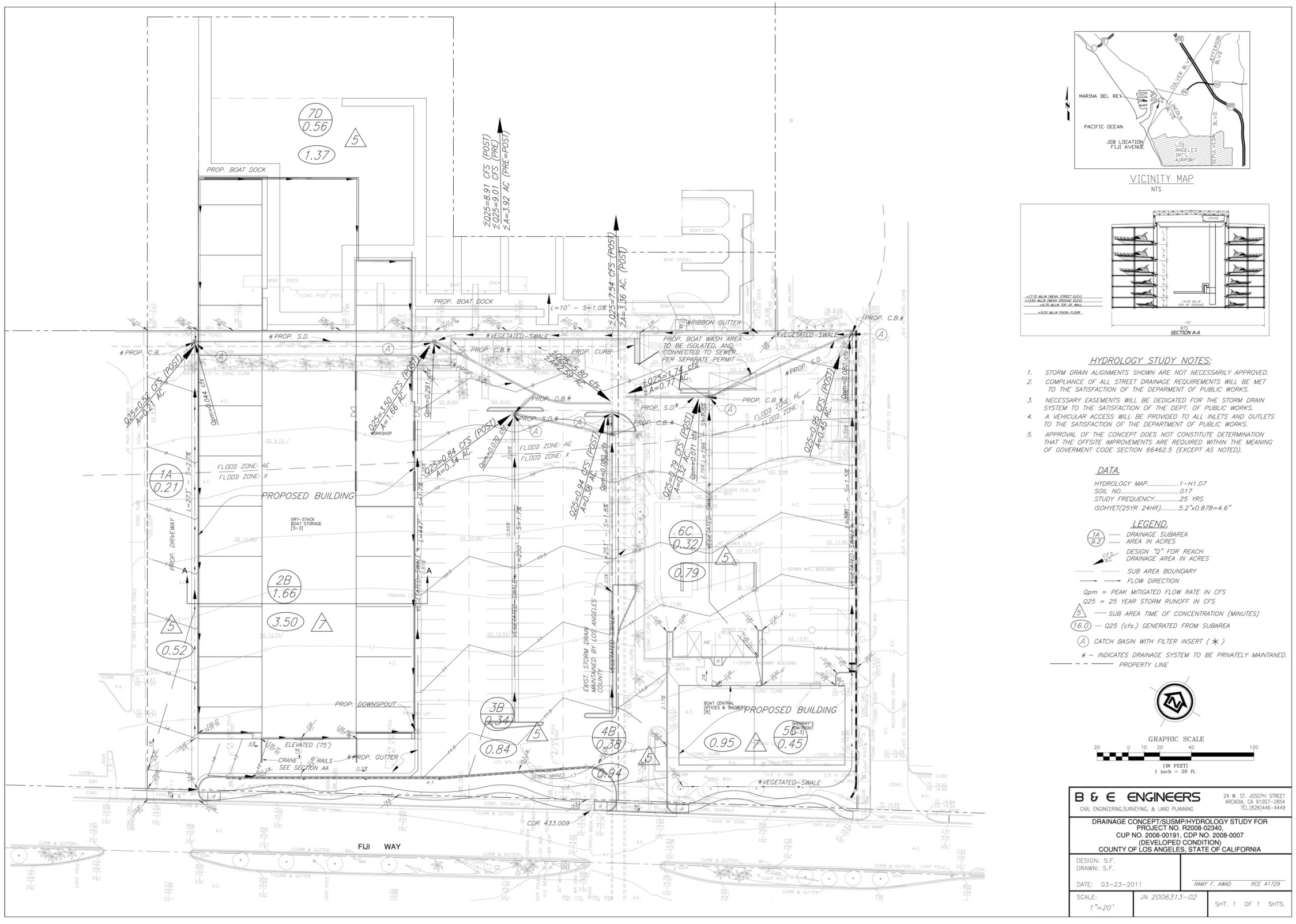
b. Los Angeles County MS4 Permit Requirements for New Development

Satisfaction of Los Angeles County MS4 Permit requirements for new development, including SUSMP requirements and SQMP requirements, and satisfaction of the Construction General Permit and General Dewatering Permit establish compliance with water quality regulatory requirements applicable to storm water runoff within the LARWQCB's jurisdictional area.

The Los Angeles County MS4 Permit requires that the SQMP specify BMPs that will be implemented to reduce the discharge of pollutants in storm water to the Maximum Extent Practicable. MS4 requirements are met when new development complies with the SUSMP requirements set forth in the Los Angeles County MS4 Permit. Under the SUSMP requirements, the effectiveness of storm water treatment controls is primarily based on two factors – the amount of runoff that is captured by the controls and the selection of BMPs to address identified pollutants of concern. Selection and numerical sizing criteria for new development treatment controls are included in the Los Angeles County MS4 Permit and the County SUSMP Manuals and in subsequent clarification from the Board (LARWQCB, 2006). If the project PDFs meet these criteria, and other source control and site design BMPs consistent with the SUSMP requirements are implemented, then this indicates that no significant impacts will occur as the result of insufficient storm water treatment capacity.

c. Construction General Permit and General Dewatering Permit

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that describes the erosion and sediment control BMPs and BMPs that will be used during the construction phase of development. The General Dewatering Permit addresses discharges from permanent or temporary dewatering operations associated with construction and development and includes provisions mandating notification, sampling and analysis, and reporting of dewatering and testing-related discharges.



Source: B&E Engineers

Exhibit 5.6-6 – Proposed Grading and Drainage Plan

d. Project Design Features for Water Quality Control

The project includes Project Design Features (PDFs) that are implemented to avoid or minimize adverse water quality impacts on the proposed project's receiving surface waters. PDFs include site design, source control, and treatment control BMPs (BMPs) that will be incorporated into the project and are considered part of the project for impact analysis. Site design and source control BMPs are designed to minimize runoff and the introduction of pollutants into runoff. Treatment control BMPs remove pollutants once they are in the runoff. As detailed in the Water Quality Technical Report, all BMPs have been selected to comply with SUSMP regulations, and to address guidance and clarification from the Regional Board (LARWQCB, 2006), as well as water quality related planning guidance in the Coastal Commission Staff Recommendations on the LCP (CCC, 2007). This section describes the post-development site design, source control, and treatment control PDFs for the proposed project.

e. Standard Urban Storm Water Mitigation Plan Requirements and Project Design Features

The following information is from the Water Quality Technical Report (Appendix H p 23-28). The project will comply with Standard Urban Storm Water Mitigation Plan (SUSMP) requirements by incorporating SUSMP requirements into project PDFs. SUSMP includes a list of minimum BMPs that must be used for the project. Table 5.6-1 below is from the Water Quality Technical Report and summarizes the proposed PDFs that will be incorporated into the project to meet SUSMP requirements. These PDFs include site design, source control, and treatment control measures, which are discussed in more detail below. These PDFs will be employed throughout the entire project. The major structural PDFs include source controls such as proper design of areas with the potential to generate pollutants (boat wash area, parking areas, and trash storage), and vegetated treatment controls incorporated into site landscaping.

The numbered requirements in Column 1 of Table 5.6-1 correspond with the numbered SUSMP requirements that pertain to the proposed project as outlined in the Water Quality Technical Report.

Table 5.6-1 SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Project PDFs
1. Peak storm water runoff discharge rates	• Post-development runoff from the 25-year storm shall not exceed the pre-development peak flow rate from the 25-year storm. • Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion.	• Post-development peak flows for the 25-year storm will be controlled to pre-development levels. • The project is not subject to hydromodification control requirements because all runoff from the project discharges to the Marina del Rey harbor. • Vegetated swales will provide the opportunity for volume reductions through infiltration and evapotranspiration.

Table 5.6-1 SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Project PDFs
2. Conserve natural areas	• Concentrate or cluster development on portions of a site while leaving the remaining land in a natural undisturbed condition. • Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection. • Maximize trees and other vegetation at each site, planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought-tolerant plants. • Promote natural vegetation by using parking lot islands and other landscaped areas. • Preserve riparian areas and wetlands.	• The project entails redevelopment of existing parking areas and maintenance facilities that have a high level of impervious cover. There is limited existing open space on the project site, and no riparian features. • The project will include landscape features with native and/or drought-tolerant vegetation and trees. There will be a net increase in pervious area with the project, including a new linear parkway. • Treatment BMPs will be incorporated into landscaped areas, which will provide some minor reduction in runoff volume through soil soaking and drying.
3. Minimize storm water pollutants of concern	• Minimize to the maximum extent practicable, the introduction of pollutants of concern that may result in significant impacts, generated from site runoff of directly connected impervious areas (DCIA), to the storm water conveyance system as approved by the building official.	• Treatment control BMPs were selected to address the pollutants of concern for the project. These BMPs are designed to minimize introduction of pollutants to the Maximum Extent Practicable (MEP) and to promote treatment and some minor volume reduction. • The project will include a number of source control measures to control pollutants to the MEP, including use of environmentally friendly construction materials for marina facilities, proper design of the boat wash area, proper design of trash storage areas, regular sweeping of parking areas, proper storage and use of fertilizer and pesticides used in landscaping, and a dog waste bag station in the linear park to promote pet waste control. • All runoff from the project site, including roof and parking areas, will be directed to vegetated swales within the parking lot medians and perimeter of the site. • Public education materials available from the LA County Department of Public Works and the Coastal Commission's Marina Tool Kit (CCC, 2004) will be distributed to new tenants. These materials promote awareness and activities for preventing the introduction of pollutants into the marina and the storm drain system. Example topics and fact sheets are environmentally sound boating practices, trash and litter awareness, and motor oil recycling programs. • There will be regular employee training about good housekeeping practices and policies; spill prevention practices and policies; educational material distribution; activity restrictions; and emergency response procedures. • Landscape areas will be planted with native and/or drought tolerant vegetation. Efficient irrigation systems (soil moisture or climate controlled) will be used for irrigating landscaped areas.
4. Protect slopes and channels	• Project plans must include BMPs consistent with the SUSMP and applicable local ordinances to decrease the potential of slopes and/or channels from eroding and impacting storm water runoff.	• The project will have limited potential for soil erosion due to the gentle topography and high impervious cover, and because the project drains to the Marina del Rey harbor. Landscape areas will be designed and maintained to limit soil erosion by promoting establishment and growth of healthy vegetation and reducing exposed soils.

Table 5.6-1 SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Project PDFs
5. Provide storm drain system stenciling and signage	• All storm drain inlets and catch basins within the project area must be stenciled with prohibitive language and/or graphical icons to discourage illegal dumping. • Signs and prohibitive language and/or graphical icons that prohibit illegal dumping must be posted at public access points along channels and creeks within the project area. • Legibility of stencils and signs must be maintained.	• All storm drain inlets and water quality inlets will be stenciled or labeled. Signage prohibiting dumping and illegal discharges to the harbor will be posted at the public access points (boat ramps, linear park area). • The site facilities managers will maintain stencils and signs.
6. Properly design outdoor material storage areas	• Where proposed project plans include outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system, measures to mitigate impacts must be included.	• Outdoor material storage areas are not anticipated as part of boat transport and storage operations. The County Sheriff's boatwright/lifeguard facility will be located in the southeast corner of the site. The Sheriff's Department will conduct ongoing maintenance activities, and any outdoor material storage areas associated with these activities will be designed in accordance with the County site design requirements. The Sheriff's Department will be responsible for ensuring the proper use, handling, and storage of any solvents, paints, and other hazardous materials.
7. Properly design trash storage areas	All trash containers must meet the following structural or treatment control BMP requirements: • Trash container areas must have drainage from adjoining roofs and pavement diverter around the areas. • Trash container areas must be screened or walled to prevent off-site transport of trash.	• All trash facilities will be covered and isolated from storm water runoff.
8. Provide proof of ongoing BMP maintenance	• Applicant required to provide verification of maintenance provisions through such means as may be appropriate, including but not limited to legal agreements, covenants, and/or Conditional Use Permits.	• The site facilities manager will be responsible for ensuring the ongoing maintenance of BMPs.
9. Design standards for structural or treatment control BMPs	Post-construction Structural or Treatment Control BMPs shall be designed to: • Mitigate (infiltrate or treat) storm water runoff from either: a) Volumetric Treatment Control BMPs b) Flow-based Treatment Control BMPs AND • Control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency.	• Storm water treatment facilities will be designed to meet or exceed the sizing standards outlined in the LA County SUSMP manual. • Vegetated swales will be used as the treatment control BMPs for the entire site. • The vegetated swales are sized in accordance with flow-based sizing criteria. The swales will be sized to collect and treat the flow of runoff produced from a rain event equal to at least 0.2 inches per hour intensity. • The size and design of the swales will be finalized during the design stage by the project engineer with the final hydrology study, which will be prepared and approved to ensure consistency with the EIR analysis prior to issuance of a final grading permit.
10.B.1 Properly design loading/unloading dock areas (100,000 ft^2 commercial developments)	• Cover loading dock areas or design drainage to minimize run-on and runoff of storm water. • Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.	• Loading docks are not included in the proposed project.

Table 5.6-1 SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Project PDFs
10B.2. Properly design repair/maintenance bays (100,000 ft^2 commercial developments)	• Repair/maintenance bays must be indoors or designed in such a way that does not allow storm water run-on or contact with storm water runoff. • Design a repair/maintenance bay drainage system to capture all wash water, leaks, and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/ maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.	• The project will include three 30'×35' boat maintenance bays. The maintenance bays will be indoors, on the ground floor of the Dry Stack Boat Storage Structure. The maintenance bays will be deigned to control and contain drainage with the maintenance area, and to isolate the maintenance bay from storm water runoff. All floor drains will be connected to the sanitary sewer. Any maintenance bays or maintenance facilities associated with the Sheriff's boatwright/lifeguard facility will be designed in accordance with the County design standards. Specifically, the maintenance facilities would be indoors, and would be isolated from the storm drain system.
10B.3. Properly design vehicle/equipment wash areas (100,000 ft^2 commercial developments)	• Self-contained and/or covered, equipped with a clarifier or other pretreatment facility, and properly connected to a sanitary sewer.	• Drainage from the boat wash area will be treated in a clarifier and discharged to the sanitary sewer. The entire boat wash area will isolated from the storm drain system by a cover and site grading.
10.C. Properly design equipment/ accessory wash areas (restaurants)	• Self-contained, equipped with a grease trap, and properly connected to a sanitary sewer. • If the wash area is to be located outdoors, it must be covered and paved, have secondary containment, and be connected to the sanitary sewer.	• The project does not include restaurants or outdoor wash areas, other than the boat wash area discussed above.
10.D. Properly design fueling area (retail gasoline outlets)	• Fuel dispensing area must be covered with an overhanging roof structure with an area greater than the area of the grade break, and may not drain onto the fuel dispensing area. • Fuel dispensing area must be paved with concrete and no asphalt. The concrete fueling area must extend 6.5 ft past the fuel dispenser, or 1 ft greater than the length of the hose and nozzle, whichever is less. • Fuel dispensing area must have a 2% to 4% slope to prevent ponding, and must be separated from the site by a grade break that prevents run-on of storm water to the extent possible.	• A dockside fueling station is under consideration for the proposed project. Any fueling facilities included in the project will be designed in accordance with appropriate design criteria for such facilities, and as required by the Los Angeles County Fire Department.
10.E.1-4. Properly design automotive repair shops	• Automotive repair shops must comply with various design requirements.	• The project does not include public/retail automotive repair facilities. The project may include automotive repair facilities in association with the new Sheriff's Boatwright/Lifeguard facility. Any automotive repair facilities associated with the Sheriff's Boatwright/Lifeguard facility will be designed in accordance with the County design standards. The LA County Sheriff's Department is responsible for the design of its Sheriff's Boatwright/Lifeguard facility.
10.F.1. Properly design parking area (parking lots)	• Reduce impervious land coverage of parking areas. • Infiltrate runoff before it reaches the storm drain system. • Treat runoff before it reaches storm drain system.	• Storm water runoff from parking lots will be directed to treatment control BMPs in compliance with SUSMP requirements. • Parking lot runoff will be treated with vegetated swales, which will provide treatment by filtration, sedimentation, and adsorption and will contribute to runoff volume reduction by soil soaking and drying.

Table 5.6-1 SUSMP Requirements and Corresponding Project Design Features

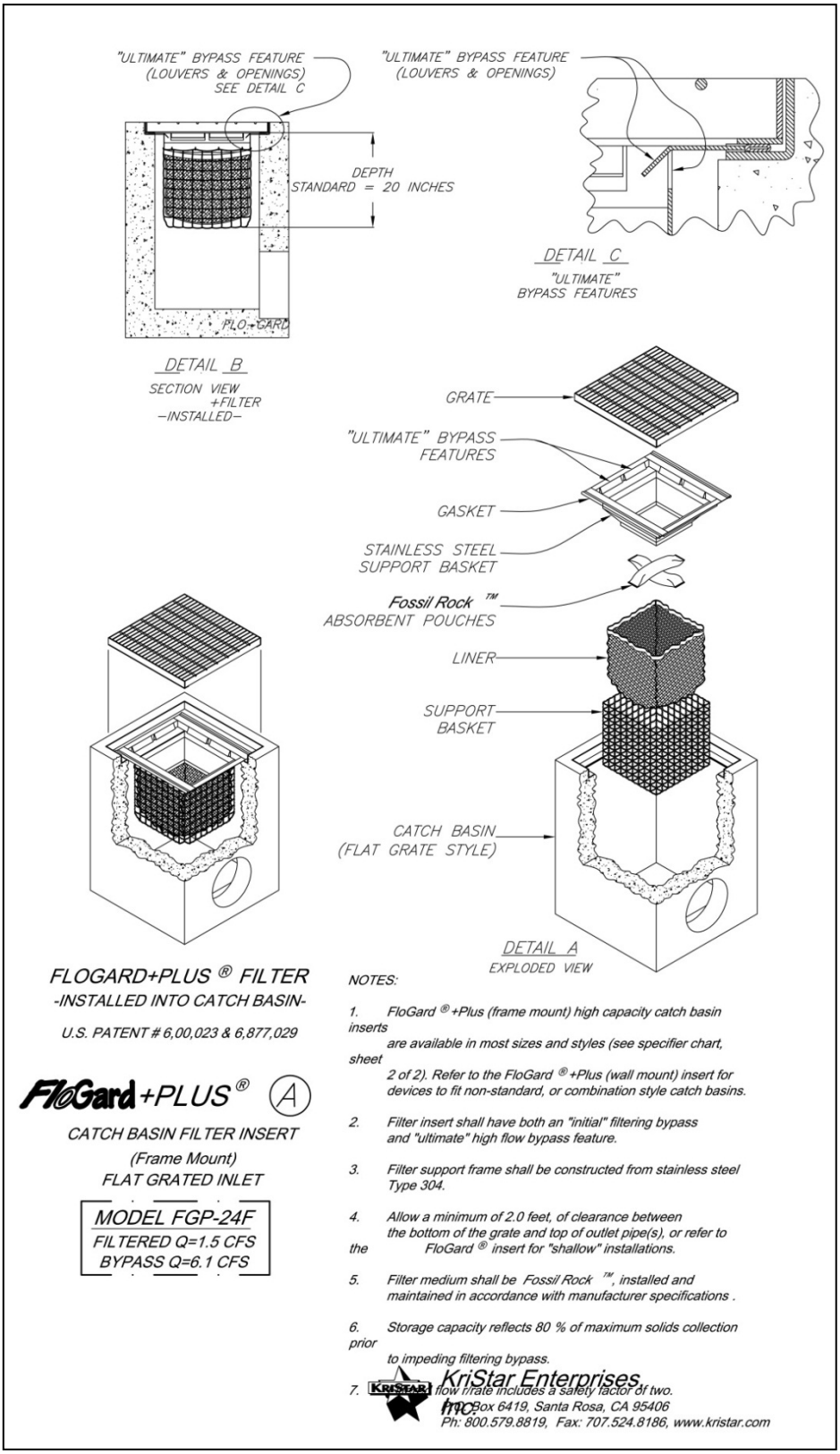
SUSMP Requirement	Criteria/ Description	Corresponding Project PDFs
10.F.2 Properly design to limit oil contamination and perform maintenance (parking lots)	• Treat to remove oil and petroleum hydrocarbons at parking lots that are heavily used. • Ensure adequate operation and maintenance of treatment systems particularly sludge and oil removal	• Treatment of runoff in vegetated swales will be used to address oil and petroleum hydrocarbons from high-use parking lots as appropriate. • The site facilities manager will be responsible for maintenance of the parking lots, which will include regular sweeping and litter pickup, ongoing monitoring and restriction of improper activities such as oil changing and boat maintenance, and the immediate attention to spills of oils or other hazardous materials.
13. Limitation of use of infiltration BMPs	• Infiltration is limited based on design of BMP, space requirements, soil permeability.	• The site is not suitable for infiltration type BMPs due to the shallow groundwater and poorly draining soils. The vegetated swales will provide some runoff volume reduction through soil soaking and drying, particularly for small storms and any dry weather nuisance flows.

The table above shows how the proposed project's PDFs meet the SUSMP requirements. For each of the SUSMP requirements listed, there is a corresponding PDF that addresses the requirement; thus, the table shows how the proposed project is in conformance with SUSMP requirements. Exhibit 5.6-7 – Catch Basin and Exhibit 5.6-8 – Boat Washdown Area, depict the filters and the collection system to be used on the project site to ensure that appropriate design features are utilized to prevent impacts from runoff.

As part of the County's approval process, a drainage concept plan has been submitted to the County Department of Public Works for review prior to preparation and approval of a final drainage plan.

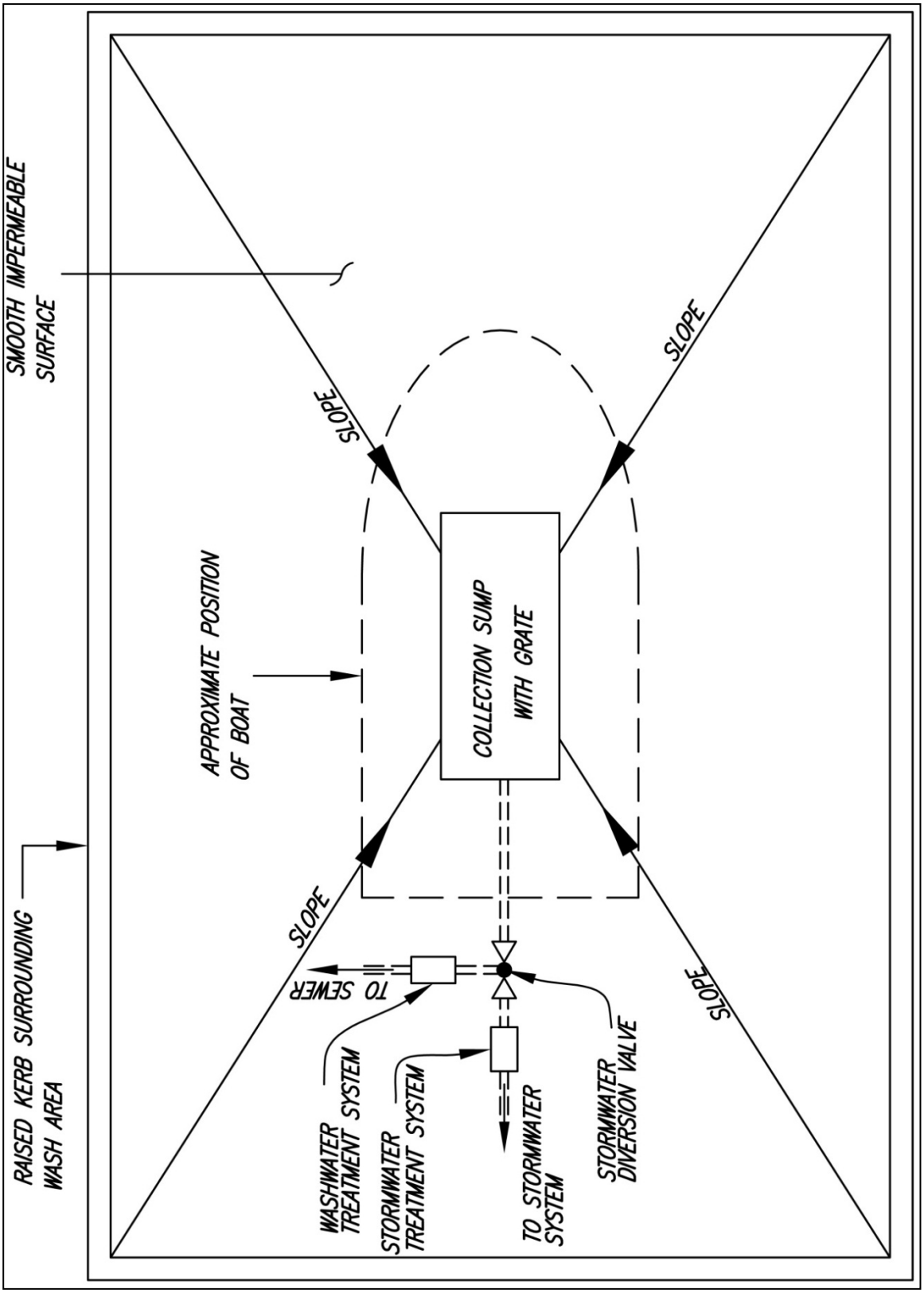
f. Treatment Best Management Practices

Vegetated swales will be used as a treatment control for the project and will be built into the parking lot medians and perimeter landscaping. The vegetated swales were selected because they provide effective water quality treatment, provide some volume reduction of small storm runoff and dry weather nuisance flows, and because they are an approved treatment BMP in the Los Angeles County SUSMP. The use of swales is consistent with recommendations in various policy and guidance documents for greater use of vegetated treatment BMPs. The policy and guidance documents that recommend greater use of vegetated treatment BMPs include a recent clarification letter written in December 2006 from the LARWQCB to the Los Angeles County regarding the development planning program requirements in the County NPDES Permit; recent 2007 Coastal Commission staff recommendations on the Marina del Rey LCP Review, and 2004 marina BMP guidance documents.



Source: B&E Engineers

Exhibit 5.6-7 – Catch Basin



Source: B&G Engineers

Exhibit 5.6-8 – Boat Washdown Area

Vegetated swales are engineered, vegetation-lined channels that are multifunctional in that they convey storm water runoff, provide pollutant removal, and provide the opportunity for reductions in volume via infiltration and evapotranspiration. Studies that examine water quality treatment performance of swales found that if swales are properly designed and maintained, they can provide effective removals of storm water pollutants associated with sediments such as total metals, organics, and total phosphorus, which are pollutants of concern for the project. Swales are most effective where longitudinal slopes are between 2% and 6%, where swale lengths are long, and where water depths are less than the vegetation height. Refer to the Water Quality Technical Report for additional information regarding vegetated swales. The vegetated swales will be designed in accordance with SUSMP design criteria, and will be used to treat runoff from the entire project site, including roof runoff from the dry stack boat storage structure and the visitor reception building. The vegetated swales in combination with site design and source control BMPs will effectively address all of the pollutants of concern.

g. Treatment BMP Sizing

In order to develop sizing information that was needed for the water quality assessment, treatment BMPs were preliminarily sized in accordance with the Los Angeles County SUSMP. The swales were sized in accordance with flow-based sizing option 1. This option requires all runoff from a rainfall intensity of 0.2 inches/hour to be treated. Long-term hourly precipitation data from the Los Angeles International Airport gauge was used in the hydrologic simulation, which quantified the average annual volume capture of the vegetated swales. Analysis of available hourly precipitation records indicated that the swales would capture and treat more than 85% of the average annual runoff from all rainfall intensities less than or equal to 0.2 inches per hour. For the purposes of water quality modeling and impact assessment the Water Quality Technical Report assumed a conservative 80% runoff capture efficiency, which is consistent with option 2 of the volume-based sizing requirements in the Los Angeles County NPDES Permit. Final sizing and design of treatment BMPs will be prepared during the final design stage of the project by the project engineer based on the final hydrology study. Final design plans will be prepared and reviewed by the County prior to issuance of a grading permit.

Inspection and maintenance of structural BMPs within the project site and adjacent sidewalk areas will be the responsibility of the site facilities manager. Please refer to the Section 5.6.5, Mitigation Measures, which address how vegetated swales will be operated and maintained.

h. Quantitative Impact Analysis

A water quality model was used to estimate pollutant loads and concentrations in storm water runoff from the project for certain pollutants of concern for pre-development conditions and post-development conditions with Project Design Features (PDFs). The storm water model is an empirical, land-use-based pollutant

loads model that is appropriate for planning level assessment. The model used in this work was developed in spreadsheet format and utilizes available storm water monitoring and rainfall data, as well as a relationship for the prediction of runoff volumes. The model is capable of estimating changes in runoff volumes, pollutant loads, and resulting pollutant concentrations that may occur with changes in land use and/or implementation of treatment BMPs. Actual runoff volumes, concentrations, and loads are variable with expected values less than and greater than the estimated averages.

The following features of the water quality model are discussed briefly below: rainfall data, land use runoff water quality, areas modeled, and PDFs modeled. The water quality model uses locally representative rainfall data to estimate the annual runoff volume from storm events. Precipitation records from 1949 to 2006 were collected at the Los Angeles International Airport and used to establish a long-term average annual precipitation of 12.4 inches. Water quality from land use runoff is estimated based on existing and proposed land uses in the project area. The Los Angeles County Department of Public Works database was used in the model because it includes an extensive compilation of storm water quality information, it contains monitoring data from land use specific drainage areas, and the data are representative of the semi-arid conditions in Southern California. In terms of the areas modeled, pre-development and post-development pollutant loadings were estimated for the entire project site. The tributary drainage areas and impervious cover for the modeled areas was determined from the project hydrology report. With regard to PDFs, the model estimated the removal of pollutants occurring within the structural treatment PDFs, such as vegetated swales. However, the modeling results are conservative because the model does not factor in the site design and source control PDFs, such as street sweeping, site design, and public education. Refer to the Water Quality Technical Report (Appendix H in this DEIR) for additional information.

The Water Quality Technical Report (Geosyntec 2008, p 32) states that the following factors are considered in estimating the effectiveness of treatment PDFs:

1. The amount of runoff processed by the treatment facilities. The water quality model takes into account conditions when the treatment facility is full and flows bypass the facilities.

2. The reduction in runoff volume due to infiltration and evaporation occurring in the vegetated treatment BMPs. Reduction in runoff volume in these facilities can be significant, on the order of 20% to 40%, especially for the more frequently occurring small storm events.

3. The mean effluent water quality for treatment BMPs was based on the International Stormwater BMP Database because it is a robust, peer reviewed database that contains a wide range of BMP effectiveness studies that are reflective of diverse land uses.

Flow composite storm event samples were used to address water quality. The samples are a measure of the average water quality during the storm event. The pollutants of concern for which there is sufficient flow composite sampling data in the County of Los Angeles database are: total suspended solids (sediment); total phosphorus; nitrate-nitrogen, ammonia-nitrogen and total Kjeldahl nutrient (TKN); total and dissolved copper; total lead; and total and dissolved zinc. The pollutant loads model was used to quantitatively estimate the storm water pollutant concentrations and loads under pre-development and post-development conditions.

i. Post-Development Storm Water Runoff Impact Assessment for Modeled Pollutants of Concern

Table 5.6-2 Predicted Average Annual Wet Weather Runoff Volume and Pollutant Loads

Parameter	Pre-Development Conditions	Developed Conditions w/ PDFs	Total Change with Project
Volume (acre-ft)	2.9	2.8	-0.1
TSS (lbs/yr)	865.6	465.2	-400.4
Total phosphorous (lbs/yr)	3.15	2.89	-0.26
Ammonia–N (lbs/yr)	8.48	2.46	-6.03
Nitrate-N (lbs/yr)	5.06	4.34	-0.72
TKN (lbs/yr)	24.25	18.19	-6.06
Total copper (lbs/yr)	0.28	0.13	-0.15
Dissolved copper (lbs/yr)	0.104	0.068	-0.036
Total lead (lbs/yr)	0.12	0.10	-0.02
Total zinc (lbs/yr)	2.69	0.73	-1.96
Dissolved zinc (lbs/yr)	1.75	0.42	-1.33

The following impact assessment analyzes dry weather impacts; compliance with NPDES Permit requirements; compliance with construction-related requirements of the Construction General Permit; the Dewatering General Permit. Table 5.6-2 summarizes the changes predicted in storm water runoff volume and average annual pollutant loads discharged from the project area to the Marina del Rey harbor.

Table 5.6-3 Predicted Average Annual Wet Weather Pollutant Concentrations

Parameter	Pre-Development Conditions	Developed Conditions w/ PDFs	Total Change with Project
TSS (mg/L)	109.2	61.8	-47.4
Total phosphorous (mg/L)	0.40	0.38	-0.02
Ammonia–N (mg/L)	1.07	0.33	-0.74
Nitrate-N (mg/L)	0.64	0.58	-0.06
TKN (mg/L)	3.06	2.42	-0.64
Total copper (µg/L)	35.5	17.5	-18.0
Dissolved copper (µg/L)	13.1	9.0	-4.1
Total lead (µg/L)	14.5	13.5	-1.0
Total zinc (µg/L)	339.4	97.3	-242.1
Dissolved zinc (µg/L)	220.9	55.5	-165.4

Table 5.6-3 shows the predicted changes in average concentration in storm water runoff.

As illustrated in the tables, the pollutant loads and the pollutant concentrations are predicted to decrease with construction of the proposed project. There will be a decrease in the pollutant discharges with project implementation because: 1) the project will redevelop the current site, which has highly impervious areas and will replace that with similar but slightly lower levels of impervious cover, and 2) under existing conditions storm water discharges to the harbor are untreated but will be treated with the proposed project via vegetated treatments BMPs that help remove pollutants of concern and reduce runoff volume.

The model results for each pollutant were evaluated in the Water Quality Technical Report in relation to the following three significance criteria (Geosyntec 2008, p 36): (1) comparison of post-development versus pre-development storm water quality concentrations and loads; (2) comparison with Los Angeles County MS4 Permit, Construction General Permit, and General Dewatering Permit requirements for new development; and (3) evaluation relative to receiving water quality benchmarks. Water quality criteria were used only for comparison purposes to evaluate potential impacts, because the water quality criteria do not apply directly to runoff from the project. The analysis used a weight of evidence approach in considering the various significance criteria. The results are summarized in the paragraphs below. Refer to the Water Quality Technical Report (Appendix H) for additional information regarding model results for each of the pollutants discussed below.

1) Runoff Volume

The volumes of mean annual runoff are not anticipated to change significantly due to the fact that the current site condition is paved and is covered with highly impervious areas and that the proposed project will develop the site with a similar but slightly lower level of impervious cover. The runoff volume from the project site is estimated to decrease about 0.1 acre-feet per year due to the increase in pervious area and a drainage control plan that incorporates vegetated swales.

2) Total Suspended Solids

The average sediment load and the average concentration of total suspended solids in wet weather runoff from the project site are predicted to decrease by approximately 45%. The proposed project will reduce sediment loadings when compared to the current site conditions because the proposed project will implement new treatment BMPs, such as the use of vegetated swales. The proposed project will not increase sediment loadings because sediment loadings and impervious cover on-site are similar for the pre- and post-redevelopment conditions. The total suspended solids in storm water runoff from the project will not cause a nuisance or adversely affect beneficial uses in the receiving waters.

3) Nutrients

Total phosphorous concentrations and loads are predicted to marginally decrease with project implementation because of the installation of treatment BMPs for drainage areas that were previously untreated. Nitrate and ammonia loads and concentrations are predicted to decrease with redevelopment of the project site due to vegetated treatment BMPs and source control BMPs.

TKN is comprised of dissolved and particulate organic nitrogen and inorganic nitrogen in the form of ammonia. TKN loads and concentrations are estimated to decrease with the proposed project because of the installation of treatment BMPs in previously untreated drainage areas. Project BMPs that target nutrients include

site design and source control BMPs such as proper use and storage of fertilizers and the use of efficient irrigation systems on-site. The Los Angeles Basin Plan contains a narrative objective for total phosphorous, ammonia, and TKN. Refer to the Water Quality Technical Report (Appendix H in this DEIR) for a table that compares the predicted average annual project concentrations of various nutrients to the LA Basin Plan Surface Water Quality Objectives.

The predicted nitrate concentration for the project site is below the Basin Plan Objective. The proposed project includes new treatment BMPs that are predicted to reduce loading and concentrations of total phosphorous, TKN, ammonia and nitrate; thus, it is unlikely the proposed project will increase algae growth. The Water Quality Technical Report concludes that the proposed project complies with the narrative objective for biostimulatory substances in the Basin Plan and with the numeric objective for nitrate. Potential impacts associated with nutrients are predicted to be less than significant.

4) Metals

Construction of the proposed project is expected to decrease the average annual wet weather loads and concentrations of the modeled trace metals. The decrease is due to the similar site conditions for pre- and post-development land use as well as the installation of treatment BMPs in previously untreated catchments. Site design and source control BMPs that target trace metals include conveyance of all runoff from the project site to vegetated treatment BMPs, site designs that exclude outdoor maintenance activities, use of environmentally friendly construction materials for docks/harbor site facilities, maintenance of the vegetated treatment BMPs, and regular parking lot sweeping and litter pickup.

Basin H is the principal receiving water for project runoff; however, there is the potential for runoff from the project site to reach adjacent off-site vacant areas (Area A) via the existing tidal channel. The receiving waters in the vacant areas could be a mixture of freshwater and saltwater. Table 5.6-4 below shows the California Toxics Rule (CTR) freshwater and saltwater acute criteria. The saltwater criteria are used for comparison with the predicted average concentration in project runoff because saltwater is the principal receiving water and because the saltwater criteria are more stringent (except for lead, but predicted lead concentration in project runoff is well below the freshwater criterion).

Table 5.6-4 Comparison of Predicted Metals Concentrations with Water Quality Criteria

Parameter	Predicted Average Annual Project Concentration (µg/L)	LA Basin Plan Surface Water Quality Objectives	CTR Saltwater Acute Criteria (µg/L)	CTR Freshwater Acute Criteria [4] (µg/L)
Total copper	17.5	All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.	5.8 [1]	14
Dissolved copper	9.0		4.8	13.4
Total lead	13.5		221 [2]	82
Total zinc	97		95 [3]	120
Dissolved zinc	56		90	117

1. Based on the CTR total to dissolved metal conversion factor for the copper saltwater acute criteria = 0.83
2. Based on the CTR saltwater acute criterion for dissolved lead and the CTR total to dissolved metal conversion factor = 0.951
3. Based on the CTR total to dissolved metal conversion factor for the zinc saltwater acute criteria = 0.946
4. Based on an assumed hardness of 100 mg/L

The predicted average concentration of total lead and dissolved zinc in the project runoff is below the saltwater CTR criteria. The predicted concentration of total zinc in the project runoff is about equal to the saltwater CTR criteria. The predicted concentrations of total and dissolved copper are both above the saltwater CTR criteria. The CTR criteria are strictly applicable only in the project receiving waters and are not enforceable to the project area discharges to the storm sewer. Due to the fact that the project is predicted to result in a significant decrease in loads and concentration of all modeled trace metals, it is concluded that the project would not cause a significant adverse impact to the ambient water quality of the receiving waters with regard to the modeled trace metals.

The treatment BMP strategy for the proposed project is predicted to significantly reduce loads and concentrations of trace metals from the project site. In addition, site design and source control BMPs will help to reduce loadings and concentration of trace metals. The Water Quality Technical Report concludes that the potential project impacts associated with trace metals are less than significant. Refer to the Water Quality Technical Report for additional information.

j. Qualitative Post Development Impact Assessment for Pollutants of Concern

As a result of the lack of statistically reliable monitoring data, the following pollutants of concern were analyzed qualitatively: Pathogens (bacteria, viruses, and protozoa), hydrocarbons (oil and grease), trash and debris and chlordane and PCBs. For these pollutants of concern, a qualitative approach based on literature information and best professional judgment was used to assess the post development storm water quality impacts. Potential construction-phase water quality impacts, principally from runoff and dewatering discharges during construction, and dry weather runoff water quality impacts were also addressed qualitatively in the Water Quality Technical Report. The following impact assessment is qualitative in nature and is based on information in the literature and professional judgment. The impact assessment analyzes the following pollutants of concern: pathogens, petroleum hydrocarbons, trash/debris, and chlordane/PCBs.

1) Pathogens

Traditionally "pathogen indicators" such as fecal coliform have been used to measure the presence of pathogens in water. However, pathogen indicators are not necessarily reliable indicators of viable pathogenic viruses, bacteria, or protozoa in storm water because coliform bacteria are found in animals, plants and soil. In addition, some pathogenic indicators can multiply in the field if conditions are conducive to their growth. Primary sources of fecal coliform for the proposed project include sediments, shore birds, urban wildlife, pet wastes, and re-growth in the storm drain itself. Another potential source is sewage that is illegally disposed of by boat owners by emptying boat holding tanks directly into the harbor waters. The project will include on-site sewage pump out facilities for boat waste, the location of which has not yet been determined. The presence of pump out facilities on-site is expected to reduce the likelihood of illegal disposal of sewage into the marina. Treatment and source control BMPs will be used to control the levels of bacteria in runoff from the project. Some reduction in indicator bacteria is anticipated as a result of project construction, because treatment BMPs that do not exist under current site conditions will be implemented with project development. In addition, swales are expected to reduce runoff volumes and, in doing so, will reduce bacterial loads. Source control BMPs that will address indicator bacteria include on-site pump out facilities, public education on appropriate practices for managing boating sewage, employee training regarding activity restrictions and distribution of public education materials, ongoing maintenance of the treatment BMPs, and regular parking lot sweeping and litter pickup.

The proposed project is consistent with the Los Angeles County MS4 Permit requirements. The potential water quality impacts related to pathogens are considered less than significant because the project includes treatment and source control PDFs that will aid in management of pathogen indicators. In addition, the project would not appreciably change pathogen levels in receiving waters and may reduce pathogen levels in project site runoff due to installation of treatment controls in pre-development watersheds that are built-out and currently have no storm water treatment controls. Therefore, the potential water quality impacts related to pathogens are considered less than significant.

2) Petroleum Hydrocarbons

Petroleum hydrocarbons, such as oil, grease, and fuels, are difficult to measure and to develop reliable samples for modeling. Current site uses as well as post-development land uses (e.g., parking, maintenance areas, and boat storage) are potential sources of petroleum hydrocarbons. However, because runoff volume would decrease as a result of project development due to a slight increase in pervious area, the proposed project would not result in an increase in the concentrations and loads of petroleum hydrocarbons compared to current site conditions. The proposed project includes source control and treatment control PDFs such as BMP maintenance, regular parking lot sweeping, and public education. It is likely that the project will reduce petroleum

hydrocarbon concentrations and loadings to the receiving waters in the Marina del Rey harbor.

The project will include permanent on-site storage of petroleum hydrocarbons in the form of gasoline for dockside fueling. A fuel tank will be placed on the landside of the site in the parking lot near the bulkhead and docks. The precise placement of the fuel tank has not been determined. The fuel tank may be either an above ground or underground storage tank, to be determined during the final design stage of the project. The fuel tank will primarily be used by tenants of the dry stack boat storage structure and will be operated by trained professionals. Spills and/or leakage from the storage tank could release hydrocarbons to the project receiving waters. Pursuant to the requirements of the California Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) the project will implement spill prevention measures to reduce the risk of accidental spills and leaks of hazardous materials to the environment. The California Unified Hazardous Waste and Hazardous Materials Management Regulatory Program formed a Certified Unified Program Agency (CUPA) to address hazardous materials and waste. The Los Angeles County Fire Department is the CUPA with jurisdiction over the project. The project will comply with requirements of Los Angeles County Fire Department, which constitutes a PDF, and on this basis, the impacts of hazardous materials storage and handling are considered less than significant. Refer to the Water Quality Technical Report (Appendix H in this DEIR) for a list of applicable requirements of the Los Angeles County Fire Department.

Construction-related impacts related to hydrocarbons on water quality are considered less than significant because pursuant to the Construction General Permit, the Construction Storm Water Pollution Prevention Plan must include BMPs that address proper handling of petroleum products on the construction site. In addition, those BMPs must effectively prevent the release of hydrocarbons to runoff per the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology standards. In addition, erosion and sediment control BMPs would control hydrocarbons that are adsorbed to sediment during the construction phase. The Water Quality Technical Report concludes that the impacts of the project on petroleum hydrocarbon levels in the receiving waters are considered less than significant.

3) Trash and Debris

Trash includes any human-derived materials including paper, plastics, metals, glass, and cloth. Debris is defined as any organic material transported by storm water, including leaves, twigs, and grass clippings. Trash and debris degrade water by attracting pests, disturbing physical habitats, and clogging storm drains and culverts. Parking and commercial land uses, which exist currently and will exist as part of the proposed project, are major sources of trash in urban areas. Due to the similarity between current and proposed site development land uses, the project is not anticipated to cause an increase in trash loading to the receiving waters. Source and

treatment control BMPs will be implemented to reduce trash loading into the marina. Source controls for the project include: regular sweeping of parking areas, litter control and covered trash receptacles. The Water Quality Technical report states that post-development trash and debris is not expected to significantly impact the receiving waters. Per the Construction General Permit, the SWPPP for the site will include BMPs for trash control (e.g., catch basin inserts, good housekeeping practices). Compliance with the Permit Requirements and inclusion of these BMPs, meeting Best Available Technology Economically Achievable (BAT)/ Best Conventional Pollutant Control Technology (BCT), included in the SWPPP will mitigate impacts from trash and debris to a less than significant level.

4) Chlordane and PCBs

Chlordane and PCBs are toxic chlorinated compounds that are strongly persistent in the environment, have low solubility in water, and tend to adsorb to fine particulates. Chlordane is a legacy pesticide, and PCBs were historically used for industrial applications. These compounds are no longer in use; however, they are TMDL constituents in the back basins of Marina del Rey. The primary source of chlordane and PCBs in the marina is storm water runoff. It is not known if chlordane or PCBs are in the soils on the project site. There is no evidence or cause to suspect these compounds are present on the project site; however, farming is listed as a former land use on-site (Methane Specialists 2007), and it is conceivable that PCBs could have been used in former maintenance activities. The greatest potential for transport of any legacy chlordane or PCBs adsorbed to existing site sediments is likely to occur during the construction phase of development. The SWPPP must contain sediment and erosion control BMPs pursuant to the General Construction Permit, and those BMPs must effectively control erosion and the discharge of sediment along with other pollutants per the BAT/BCT standards. Based on the high levels of impervious cover in the proposed project, and the post-development and construction related sediment control measures, the impacts of the proposed project on chlordane and PCBs in the receiving waters is considered less than significant.

5. Los Angeles County MS4 Permit Requirements for New Development as Defined in the SUSMP

Project Design Features (PDFs) include site design, source control, and treatment control BMPs in compliance with the SUSMP requirements. Treatment control PDFs will treat runoff from the entire project area, as well as some of the adjacent streets that currently receive no treatment. Sizing criteria contained in the Los Angeles County MS4 Permit and the SUSMP requirements will be met for all treatment control BMPs. The proposed PDFs for the project meet the benchmark Los Angeles County MS4 Permit requirements for new development and significant redevelopment. Refer to the Water Quality Technical Report for information regarding selection of proposed site design, source control, and treatment control PDFs.

6. Construction-Related Impacts

The potential impacts of construction activities, construction materials, and non-storm water runoff on water quality during the construction phase focus primarily on sediment (total suspended solids and turbidity) and certain non-sediment related pollutants. Sediment releases during construction can occur from exposing soils to potential mobilization, rainfall/runoff, truck traffic, and wind. Additional pollutants of concern include construction materials, chemicals, and petroleum products used in building construction or equipment maintenance.

No dredging will occur in Basin H for the proposed project, thus impact related to reduced water quality from dredging will be avoided. Construction impacts will be minimized via compliance with the Construction General Permit. The permit requires that a Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented. The SWPPP must include erosion and sediment control BMPs that will meet or exceed measures required by the Construction General Permit, as well as BMPs that control the other potential construction-related pollutants.

A SWPPP will be developed as required by, and in compliance with, the Construction General Permit and the County of Los Angeles Standard Conditions. The LARWQCB has inspection and enforcement authority for the General Permit. The General Permit requires the SWPPP to include a menu of BMPs to be selected and implemented based on the phase of construction and the weather conditions to effectively control erosion and sediment to the BAT/BCT.

The project will reduce or prevent erosion and sediment transport and transport of other potential pollutants from the project site during the construction phase through implementation of BMPs meeting BAT/BCT to prevent or minimize environmental impacts and to ensure that discharges during the construction phase of the project will not cause or contribute to any exceedance of water quality standards in the receiving waters. These BMPs will assure effective control of not only sediment discharge, but also of pollutants associated with sediments, such as but not limited to: nutrients, heavy metals, hydrocarbons, chlordane, and PCBs, if any. Refer to the Water Quality Technical Report for a discussion of construction dewatering activities and other construction related non-storm water discharges. Construction-related BMPs listed in the Water Quality Technical Report have been incorporated as mitigation measures.

Typical BMPs for construction dewatering include infiltration of clean groundwater; on-site treatment using suitable treatment technologies; on-site or transport off-site for sanitary sewer discharge with local sewer district approval; or use of a sedimentation bag for small volumes of localized dewatering. Compliance with these Waste Discharge Requirements (WDRs) constitutes a PDF, further assuring that the impacts of these discharges are not significant. The proposed project will be required to comply with all state and local regulations related to water quality standards and waste discharge. The project will be required to submit a Notice of Intent to the State Water Quality Control Board and obtain a Waste Discharge Identification number. The project will involve construction within public waterways and will require an Army

Corps of Engineers (ACOE) Section 404 Permit and Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification. The impact of construction-related runoff from the project is considered less than significant.

5.6.5 Mitigation Measures

Mitigation Measures WQ-1 through WQ-5 are related to the operation and maintenance activities for the vegetated swales on-site. Mitigation Measures WQ-6 through WQ-26 will be implemented during construction as necessary. Mitigation Measures WQ-27 through WQ-29 will ensure compliance with all regulatory and permitting requirements.

WQ-1 After project completion the site facilities manager shall be responsible for operation and maintenance activities associated with vegetated swales on-site.

WQ-2 After project completion the site facilities manager shall be responsible for monthly (or more frequently as needed) visual facility inspections of vegetated swales.

WQ-3 After project completion the site facilities manager shall be responsible for the monthly (or more frequently as needed) removal of trash, debris, and sediment from vegetated swales.

WQ-4 After project completion the site facilities manager shall be responsible for integrated pest/plant management and minor vegetation removal and thinning of vegetation within the vegetated swales. This shall occur on a monthly (or more frequently as needed) basis.

WQ-5 After project completion the site facilities manager shall be responsible for major vegetation removal/planting and major sediment removal as required (annually or less frequently) within the vegetated swales.

WQ-6 During construction the site facilities manager shall ensure that erosion is controlled via physical stabilization through hydraulic mulch, soil binders, straw mulch, bonded fiber matrices, and erosion control blankets (i.e., rolled erosion control products).

WQ-7 During construction the site facilities manager shall ensure that erosion is controlled by ensuring that the area and duration of exposure of disturbed soils is limited.

WQ-8 During construction the site facilities manager shall ensure that erosion is controlled via soil roughening of graded areas (through track walking, scarifying, sheepsfoot rolling, or imprinting) to slow runoff, enhance infiltration, and reduce erosion.

WQ-9 During construction the site facilities manager shall ensure that erosion is controlled by stabilizing vegetation through temporary seeding to establish interim vegetation

WQ-10 During construction the site facilities manager shall ensure that wind erosion (dust) is controlled through the application of water or other dust palliatives as necessary to prevent and alleviate dust nuisance.

WQ-11 During construction the site facilities manager shall ensure that a soil monitoring plan is prepared and implemented.

WQ-12 During construction the site facilities manager shall ensure that sediment is controlled through the use of silt fences, fiber rolls, gravel bag berms, sand bag barriers, and straw bale barriers, which will provide perimeter protection and will prevent discharges.

WQ-13 During construction the site facilities manager shall ensure that storm drain inlets are protected to control sediment.

WQ-14 During construction the site facilities manager shall ensure that silt fences, fiber rolls, gravel bag berms, sand bag barriers, and straw bale barriers are used on-site.

WQ-15 During construction the site facilities manager shall ensure the use of sediment traps, protection of storm drain inlets, and sediment basins, to capture and control sediment.

WQ-16 During construction the site facilities manager shall ensure that sediment velocity is reduced through the use of check dams, sediment basins, and outlet protection/velocity dissipation devices.

WQ-17 During construction the site facilities manager shall ensure that the construction entrance/exit is stabilized, that the construction road is stabilized and that there is a tire wash at the entrance/exit, which will reduce off-site sediment tracking.

WQ-18 During construction the site facilities manager shall manage solid, sanitary, concrete, hazardous, and equipment-related wastes.

WQ-19 During construction the site facilities manager shall ensure that soil stockpiles are protected through covers, the application of water or soil binders, and perimeter control measures.

WQ-20 During construction the site facilities manager shall implement good housekeeping practices to reduce or limit pollutants at their source before they are exposed to storm water, including such measures as: water conservation practices, vehicle and equipment cleaning and fueling practices.

WQ-21 During construction the site facilities manager shall ensure that Best Management Practices (BMPs) are implemented to reduce or eliminate the discharge of sediment or other pollutants due to construction activities within and adjacent to the waterway including: BMPs for pile driving operations; BMPs for managing materials and equipment over water; and BMPs for managing demolition adjacent to waterways.

WQ-22 During construction the site facilities manager shall ensure the training of individuals responsible for Storm Water Pollution Prevention Plan (SWPPP) preparation, implementation, and permit compliance, including contractors and subcontractors.

WQ-23 During construction the site facilities manager shall ensure that signage (bilingual, if appropriate) is present on-site to address SWPPP-related issues (such as site cleanup policies, BMP protection, washout locations, etcetera).

WQ-24 During construction the site facilities manager shall perform routine site inspections and inspections before, during (for storm events greater than 24 hours), and after storm events.

WQ-25 During construction the site facilities manager shall implement maintenance and repairs of Best Management Practices as indicated by routine and storm event inspections.

WQ-26 During construction the site facilities manager shall ensure that a Sampling and Analysis Plan for non-visible pollutants is prepared and implemented.

WQ-27 During development the project applicant shall ensure that the project complies with adopted regulatory requirements, including: MS4 Permit and SUSMP requirements; Construction General Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan water quality objectives, California Toxics Rule (CTR) criteria, and Total Maximum Daily Loads (TMDLs).

WQ-28 Prior to the commencement of the project, the project applicant shall ensure that an Army Corps of Engineers (ACOE) Section 404 Permit has been obtained and that permit requirements are adhered to.

WQ-29 Prior to the commencement of the project, the project applicant shall ensure that Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification is obtained and that requirements are adhered to.

5.6.6 Level of Significance after Mitigation

Conclusions in this section regarding the level of significance of the project are based on conclusions from the Water Quality Technical Report and are based on quantitative and qualitative analyses of the significance of impacts for the pollutants of concern in storm water runoff as well as other conditions that could potentially affect the water quality of the project's receiving waters.

1. Sediments

BMPs for the Los Angeles County MS4 Permit, Construction General Permit, Dewatering General Permit, and SUSMP will be incorporated into the project to address sediment during the construction phase and after the project is complete. The average annual total suspended solids loads and average concentrations in runoff from the project site are predicted to decrease from current site conditions. A Construction SWPPP will control turbidity in storm water runoff. The project's impact on sediments is considered to be less than significant.

2. Nutrients (Phosphorous and Nitrogen (Nitrate-N, Ammonia-N, and TKN)

BMPs for the Los Angeles County MS4 Permit, Construction General Permit, Dewatering General Permit, and SUSMP will be incorporated into the project to address nutrients during the construction phase and after the project is complete. The average annual loads and average concentrations of total phosphorous, ammonia, nitrate-nitrogen, and TKN in storm water runoff from the project site are predicted to decrease. No increased algae growth or impairment of receiving waters is expected, based on the predicted nutrient concentrations. The project's impact on nutrients is considered to be less than significant.

3. Trace Metals

Trace metals will be addressed during project construction and after project development by BMPs for the Los Angeles County MS4 Permit, Construction General Permit, General Dewatering Permit, and SUSMP. Average annual loads and average concentrations of trace metals in storm water runoff from the project site are predicted to decrease. The average concentrations of total lead and dissolved zinc are predicted to be below benchmark CTR criteria, and the average concentration of total zinc and total and dissolved copper are predicted to be above the benchmark CTR criteria. The CTR criteria are applicable only in the project receiving waters and are not enforceable to the project area discharges. The impact of the project on trace metals is considered less than significant on the basis that the project is predicted to result in a significant decrease in loads and concentrations of all modeled trace metals.

4. Pathogens

The proposed project does not involve septic systems, and the project's sewer system will be designed to current standards, minimizing the potential for leaks. Indicator bacteria will primarily be reduced through source control and treatment control BMPs. Pathogens are not expected to occur at elevated levels during the construction-phase of the proposed project. On this basis, the project's impact on pathogen and pathogen indicators is considered less than significant.

5. Petroleum Hydrocarbons

Hydrocarbon concentrations in runoff from the project site will likely decrease once the project is constructed because treatment BMPs will be built into the project. In addition, source control BMPs will be used to reduce sources of hydrocarbons, and the project will comply with site design standards for fuel storage. The fuel storage tank on-site will be utilized for boat refueling operations. The fuel storage and dispensing facilities will be designed and operated in compliance with all state and local regulatory requirements, which are enforced by the Los Angeles County Fire Department. Pursuant to the Construction General Permit, during project construction, the Construction Stormwater Pollution Prevention Plan must include BMPs that address proper handling of petroleum products on the construction site. BMPs must effectively prevent the release of hydrocarbons to runoff per the BAT/BCT standards. On this basis, the impact of the project on hydrocarbon levels in the receiving waters is considered less than significant.

6. Trash and Debris

Trash and debris in runoff are likely to decrease after project development because treatment BMPs will be implemented where none currently exist. Source control BMPs such as street sweeping, covered trash receptacles, etcetera will also be implemented, which should help to reduce trash loadings in runoff from the project site. During project construction, PDFs implemented per General Permit and General De-Watering Permit requirements will remove trash and debris through the use of BMPs. Due to the implementation of the project PDFs, trash and debris are not expected to significantly impact receiving waters.

7. Chlordane and PCBs

During project construction, sediment and erosion control BMPs will be implemented, pursuant to the General Construction Permit. BMPs must effectively control erosion and the discharge of sediment along with other pollutants per the BAT/BCT standards. After project construction, there will be limited potential for any legacy chlordane or PCBs to be transported due to the fact that a majority of the site will be have an impervious cover. In addition, vegetated treatment BMPs will be utilized. Based on the

above information, the impact of the project on chlordane and PCBs is considered less than significant.

8. Construction Impacts

Impacts from soil disturbance and suspended solids discharge caused by project construction will be minimized by implementing construction BMPs that will meet or exceed measures required by the Construction General Permit, as well as BMPs that control the other potential construction-related pollutants (hydrocarbons, metals). Per the Construction General Permit and County of Los Angeles Standard Conditions, a SWPPP will be developed. Sediment control BMPs will be implemented to trap sediment once it has been mobilized. Based on the information above, the construction-related impact of the project on water quality is considered less than significant.

9. Regulatory Requirements

The proposed project satisfies Los Angeles County MS4 Permit requirements for new development, including SUSMP requirements and SQMP requirements, and satisfies construction-related requirements of the Construction General Permit and General Dewatering Permit, and therefore complies with water quality regulatory requirements applicable to storm water runoff.

10. Dry Weather Flows

Potential sources of dry weather runoff from the project site include landscape irrigation, pavement washing, and fire hydrant purging. No dry weather runoff will be caused by the boat wash area because the area's drain will be connected to the sanitary sewer and grading and/or a cover will be used to isolate the area from storm water runoff. Drought-tolerant vegetation will be used in landscaped areas and efficient irrigation technology will be utilized to minimize excess watering. Refer to the Water Quality Technical Report for additional information. Impact from dry weather flows is considered less than significant because sources of dry weather flows in the project area are limited and source treatment control PDFs will reduce flows from landscaped areas.

11. Flows to Off-site Vacant Areas (Area A)

Project site runoff under existing and proposed conditions can potentially reach the off-site vacant areas south of Fiji Way (Area A) by conveyance through the existing tidal channel that crosses the Project site. Potential water quality impacts from the proposed Project to the off-site vacant areas (Area A) are concluded to be less than significant, based on following considerations: 1) the project complies with the MS4 Permit, the SUSMP Manual, the Construction General Permit, and the General Dewatering Permit requirements; 2) the project does not alter current drainage

patterns to the off-site vacant areas (Area A) via the existing tidal channel; 3) the project will implement a variety of source and treatment control BMPs for currently untreated areas of similar land use and impervious cover; and 4) post-construction average pollutant loads and concentrations in project runoff to Basin H and the entrance to the tidal channel are predicted to be lower than existing levels.

5.6.7 Cumulative Impacts

The project's incremental effects on surface water quality in the Marina del Rey harbor are not expected to be significant because the anticipated quality of effluent expected from the project's PDFs will not contribute loads or concentrations of pollutants of concern that would be expected to cause or contribute to a violation of the water quality standards in the project's receiving waters. After PDFs, the water quality of the surface runoff from the project site, both during construction and after development, is predicted to comply with adopted regulatory requirements designed by the LARWQCB to assure that water quality is not adversely affected by regional development. Adopted regulatory requirements include MS4 Permit and SUSMP requirements; General Construction Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan water quality objectives, CTR criteria, and TMDLs. Future development within Marina del Rey must comply with the requirements listed above. Cumulative impacts on surface water quality of receiving waters from the project and future urban development in the Marina del Rey watershed are addressed through compliance with the above mentioned regulatory requirements, which are designed to protect the beneficial uses of the receiving waters. Based on compliance with these requirements, cumulative water quality impacts are less than significant.

5.7 Land Use and Planning

In this section, the proposed project is evaluated to determine its consistency with the County of Los Angeles General Plan, the County's zoning regulations, the Marina del Rey Local Coastal Program (which includes the Land Use Plan), and the Marina del Rey Specific Plan, and its compatibility with surrounding land uses. The proposed project consists of Specific Plan Amendments, a Local Coastal Program Amendment, a Coastal Development Permit, conditional use permits, a setback variance, and parking modification. The project includes a unique development feature – an over-water component. While approval of the over-water structure may not technically be considered precedent setting, the approval could encourage similar over-water development proposals for water-dependent uses.

5.7.1 Existing Setting

The project site is approximately 4.2 acres, of which 3.09 acres are landside and 1.11 acres waterside. The site includes two parcels, 52 and GG, in Marina del Rey, an unincorporated area of Los Angeles County. Site topography ranges from 15 feet above sea level at the southernmost boundary along Fiji Way to 7 feet above sea level at the northernmost boundary adjacent to Basin H, the first basin on the east side of the marina.

Parcel 52, the western parcel, is currently developed with a temporary no-fee public parking lot containing 245 parking spaces. The lot is primarily utilized for charter fishing tours and dinner and other cruises. Motor homes and vans also utilize the parking lot on a transient basis. A small, grassy berm containing 24 mature palm trees runs parallel to Basin H. The balance of the parcel is paved, with two driveways along Fiji Way providing access.

Parcel GG, the eastern parcel, is currently developed with the Marina del Rey Sheriff's Boatwright/Lifeguard facility, a maintenance shop, and a maintenance/storage yard. In addition, five office trailers used by the Los Angeles County Department of Beaches & Harbors are located on the site. No public parking is located on Parcel GG, but a limited number of spaces are available to Sheriff and County employees.

In addition to the landside parcels, a portion of the water that fronts Parcels 52 and GG is part of the project site. The waterside uses include a dock utilized by charter fishing ventures and a separate dock that is utilized by the Sheriff's Department. Exhibit 4.2-1 – Existing Setting and Photo Key Map and Exhibit 4.2-2 through Exhibit 4.2-4 are photographs showing details and the location of the components currently existing on Parcels 52 and GG.

1. Surrounding Land Uses

The project site is located at 13483 Fiji Way within Marina del Rey in Los Angeles County. Regional access is via the SR-90 Freeway and Lincoln Boulevard. Fiji Way can also be accessed from Admiralty Way, one of the main perimeter roads of the marina. The site is adjacent to Basin H, one of eight basins within the marina. Within Basin H are a number of docks along the Fiji Way and Mindanao Way waterfront. A public launch ramp is located on Parcel 49 adjacent to Parcel GG. Three docks extend into the Basin and are used for on- and off-loading and staging for boat removal via the ramp. The docks associated with Parcel 52 are used for charter fishing ventures and the Sheriff's Department watercraft. West of Parcel 52 are docks and wet slips that are part of a boatyard/marina. Guest boat docks are provided at Burton Chace Park, across Basin H to the west. A map detailing the Parcel numbers and locations is included as Exhibit 4.1-3 on page 4-4.

On the landside across Basin H to the north are a dry boat storage surface parking lot and Burton Chace Park, which is a public park that has picnic areas, a snack bar, public restrooms, and a banquet/meeting facility. Dry storage in Marina del Rey is currently provided on Parcels 49 and 77. Parcel 49 is located directly east of the project site. Parcel 77 is located directly across Basin H. Across Fiji Way, south of the project site, lies Area A of the Ballona Wetlands Ecological Reserve, beyond which is an open space area owned by the State of California and managed by the California Department of Fish and Game. This open space area is proposed for wetlands restoration. The South Bay Bike Trail runs adjacent to Fiji Way. A public boat storage facility and a public launch ramp are located to the northeast.

A boat maintenance and repair facility, which includes a number of wet slips, is located immediately west of the site. Farther west along Fiji Way are The BoatYard with 103 wet slips, Fisherman's Village, offices for the Coast Guard, the County Sheriff, and the Department of Beaches & Harbors offices, and the Villa Venitia apartment complex.

2. Relevant Plans and Policies

a. General Plan

The Los Angeles County General Plan was adopted in November 1980. It consists of Land Use, Circulation, Housing, Conservation, Open Space and Recreation, Noise, Transportation, Safety, Scenic Highways, Public Facilities, Water/Waste Management, and Economic Development Elements, as well as community plans that set forth detailed growth and development policies for specific unincorporated areas within the County. These Elements have three major roles:

- To provide an overall set of goals and policies to guide countywide activities so that governmental decisions at all levels move in the same direction

- To provide policy parameters to integrate more specific planning efforts in order to ensure a compatible and effective regional approach
- To provide effective planning for specific functions that can be best addressed at the countywide level

In addition, the County has prepared local coastal programs (LCPs) in accordance with the 1976 California Coastal Act. These LCPs are then adopted as the Coastal Element of the General Plan and establish detailed land use policies within the coastal zone. The Marina del Rey LCP is discussed in more detail below. The proposed project site is designated "Specific Plan" in the County of Los Angeles General Plan.

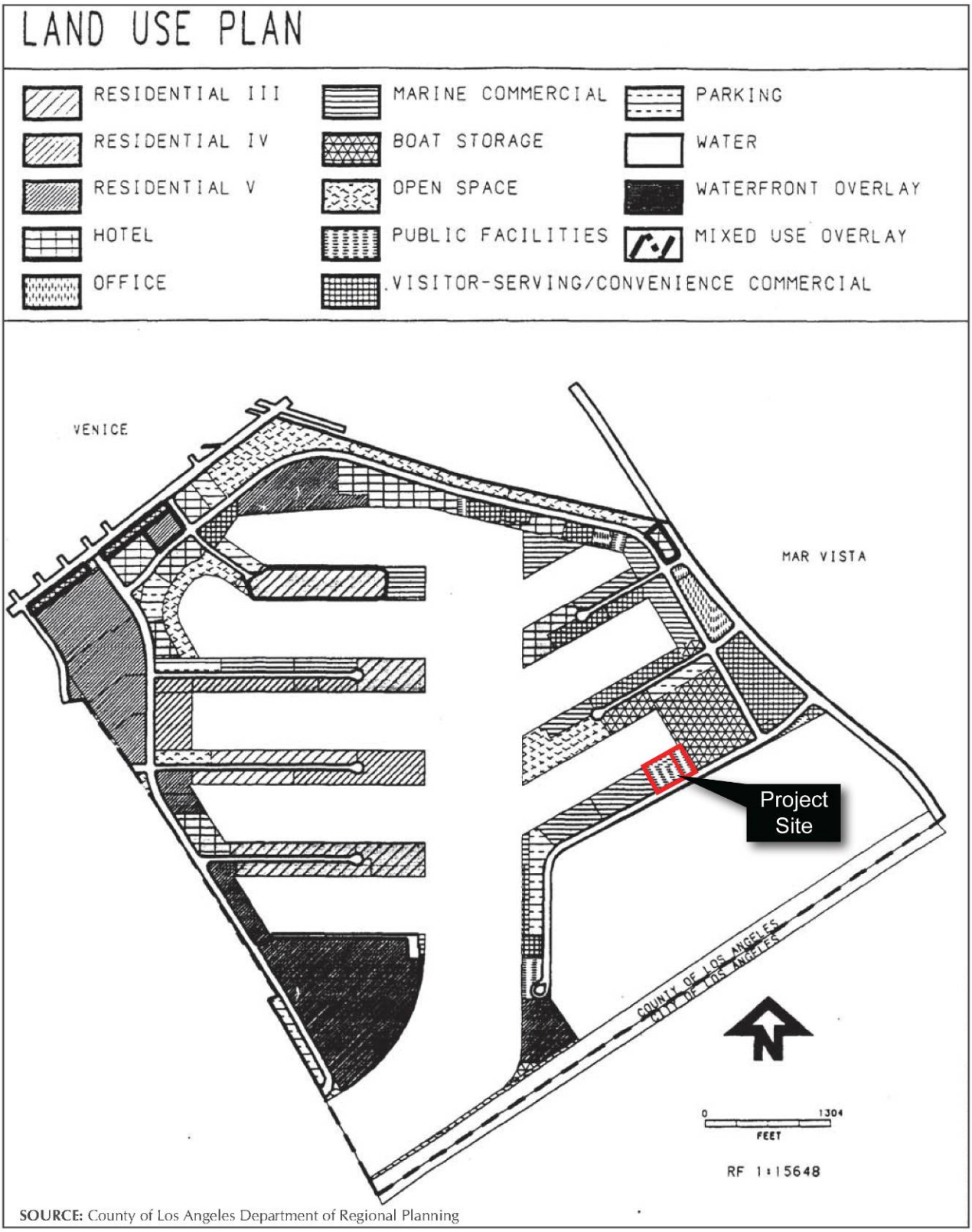
b. Local Coastal Program

The Local Coastal Program (LCP) designation for the project site is "Public Facility," as shown on Exhibit 5.7-1 – Marina del Rey Land Use Plan Area. Public Facility is described as public infrastructural land uses other than roads, including libraries, harbor administration, public utilities, police and fire facilities. As noted, the Marina del Rey LCP consists of the Land Use Plan (LUP) and the Local Implementation Plan (LIP). The LCP sets forth policies related to Coastal Access and Recreation, Marine and Land Resources, and New Development Policies that are consistent with California Coastal Act Policies, including:

- Public access to the shoreline is a priority. All development shall be designed to improve access to and along the shoreline. Public opportunities for viewing the marina's scenic elements, particularly the small craft harbor water areas, shall be enhanced and preserved.
- New development shall provide additional recreational opportunities including trails, bikeways, open space/park areas and viewing areas as appropriate. Public parking lots shall be provided in locations convenient to key visitor attractions in the marina.
- Recreational boating is a top priority. To help achieve this goal, adequate support facilities should be provided including boat slips, fueling stations, boat repair yards, boat dry storage yards, launch ramps, and boat charters, among others.

On November 3, 2011, the California Coastal Commission (CCC) approved an amendment to the Marina del Rey Local Coastal Program. The project site was included as one of the "pipeline projects" identified in the amendment. The amendment will:

- Change the land use categories for Parcels 52 and GG to "Boat Storage" with a Waterfront Overlay Zone,
- Add dry stack boat storage connected to landside structure to uses permitted in the "Water" land use category, and



SOURCE: County of Los Angeles Department of Regional Planning

Exhibit 5.7-1 – Marina del Rey Land Use Plan Area

- Change the maximum height of any structure in the "Water" land use category.

The Los Angeles County Board of Supervisors' approval occurred on November 29, 2011. The CCC is expected to approve the LCP Amendment as a consent calendar item in early 2012. The statute of limitations must run on the CCC action, a 60-day period after the final CCC action. Final approval of the amended LCP would eliminate the amendments contemplated herein.

c. Coastal Act Chapter 3 Consistency Analysis

The Boat Central project is consistent with Chapter 3 of the Coastal Act. The following discussion highlights the Coastal Act objectives that are met by the proposed project.

Encouragement of Recreational Boating Use (Section 30224)

Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas and in areas dredged from dry land.

A dry stack boat storage structure is a key part of the Marina del Rey pipeline projects approved by the California Coastal Commission as an amendment to the LCP in November 2011. The site has been designated Public Facility and is used for a temporary public parking lot, offices, and a Sheriff's Boatwright/Lifeguard facility. The dry stack storage structure would replace non-priority land uses with high priority coastal uses (Recreational Boating, Coastal Dependent development). Boat Central represents a unique opportunity to house 345 boat spaces and 28 boat trailers under one roof, in addition to 30 mast-up-capable spaces in a gated area of the project site. The dry stack storage spaces are intended to accommodate smaller boats from 20 to 35 feet in length with the maximum size limited to approximately 40 feet in length. The project will not displace any existing berthing facilities, but rather add 345 dry stack storage and 30 mast-up-capable spaces to the total slip count in Marina del Rey, thus enhancing and increasing recreational boating opportunities. With a focus on boats 20 to 35 feet in length, the dry stack boat storage structure specifically encourages small craft boating, in line with the Priority Objectives of the Marina del Rey Land Use Plan.

New Development Projects (Section 30212)

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Public access to and enjoyment of the marina are enhanced by the proposed project. Currently, public access is not precluded on the site, but public amenities are limited. At present, pedestrian access to the waterfront is provided via an asphalt parking lot with minimal landscaping. The proposed project would include a landscaped promenade along Fiji Way, spanning the width of the project site and connecting to a walkway that runs along the western edge of the dry stack structure. Pedestrians and visitors will be able to enjoy the waterfront from a view park at the terminus of the landscaped walkway, with amenities such as benches, a drinking fountain, a shade structure, and bicycle racks. In the interest of public safety, the proposed project cannot provide a promenade along the water's edge. The proposed project includes a gantry crane that will transport boats from the storage racks to the water across the bulkhead, precluding the possibility of a safe, pedestrian promenade.

Scenic and Visual Qualities (Section 30251)

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. new development in highly scenic areas such as those designated in the California Coastline Preservation and Recreational Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

The dry stack storage structure was sited and designed to preserve views of the harbor. The use of gantry crane technology allows for a taller, narrower structure than would be feasible with a traditional forklift design, and affords more expansive views of the adjacent waterfront. The orientation of the building on a north-south axis as opposed to an east-west axis additionally permits the preservation of views. The proposed project exceeds the view corridor requirement of the Marina del Rey Local Coastal Program for a structure of this height by providing a 50% view corridor as opposed to the 40% corridor required. The proposed project will also encourage enjoyment of the harbor's views with a small waterfront view park located at the water's edge to the west of the dry stack structure.

Location of New Development in Appropriate Areas (Section 30250)

(a) New residential, commercial or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate pubic services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

(b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.

(c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.

The development proposed will be located in an existing developed area with adequate public services. As described in Section 4, Project Description, adjacent development includes a public boat launch ramp, a public boat storage structure, a boat maintenance and repair facility, and Burton Chace Park across Basin H. The location of the project site, adjacent to other recreational and industrial uses, makes the site highly suitable for the proposed dry stack storage project. Environmental analysis, including air, traffic, and biological resources studies, shows that by incorporating mitigation measures included herein, no significant individual or cumulative adverse effects on coastal resources would result from project implementation. The dry stack storage structure is a coastal-dependent use located in an area where recreational boating is a high priority to residents and visitors.

Enhancement and Maintenance of Public Coastal Access (Section 30252)

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

While items (1), (3), (5) and (6) do not specifically apply to the proposed project, item (2) is applicable because the project provides a commercial facility, available to not only the residents of Marina del Rey but the surrounding area, for storage of boats. Therefore, boats will not have to be trailered to the marina, minimizing the use of local roads. In addition, the transportation system within the marina can provide access to the boat storage structure for nearby residents, eliminating the need to drive. Additionally, as it relates to item (4), the project ensures public access to the coast by providing adequate on-site parking for the dry stack structure and other uses on the site.

Minimization of Adverse Impacts from New Development (Section 30253)

New development shall do all of the following:

(a) Minimize risks to life and property in areas of high geologic, flood and fire hazard.

(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.

(d) Minimize energy consumption and vehicle miles traveled.

(e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

(a) The Marina del Rey area is relatively flat, and the project site lies within a stable area relative to landslides. Potential liquefaction and lateral spreading on the site have been addressed through mitigation measures requiring foundation support. The site is not in a very high fire hazard severity zone. However, the site is within two flood hazard zones as delineated on the Flood Insurance Rate Map for the area. The project minimizes risks to life and property based on design features and compliance with local, state, and federal requirements for environmental protection due to any potential flood and fire hazards.

(b) The project site is in a fully developed area of Marina del Rey. Design features will provide stability and structural integrity to the dry stack storage building and the office/Sheriff's Boatwright components. The construction of protective devices is not proposed, and since the site is not located along bluffs or cliffs, there will be no alteration of natural landforms.

(c) The project site is within the South Coast Air Basin (SCAB), which has been classified as a non-attainment air basin for compliance with the federal Clean Air Act. Estimated construction and operational emissions are below the South Coast Air Quality Management District (SCAQMD) thresholds. Regional emissions associated with the project are accounted for in the Air Quality Management Plan (AQMP) and are, therefore, consistent with the AQMLP. Potential construction and operational impacts to air quality will be mitigated through the requirement for compliance with local and state regulations regarding the release of emissions and the imposition of mitigation measures to reduce any potential impact. Compliance includes adherence to SCAQMD Rules 402, 403 and 403.1.

(d) The dry stack storage building has been designed to minimize energy consumption and maximize the use of natural lighting and ventilation. The construction of a dry stack storage structure in the marina will reduce the need to haul boats from off-shore storage locations, or travel to other marinas in the County, thus minimizing vehicle miles traveled.

(e) The proposed uses are consistent with the goals of the County General Plan and the Marina del Rey Specific Plan. Dry stack boat storage and attendant facilities and uses are permitted and compatible with the residential, commercial, and boater-oriented uses currently existing in the marina, which is a popular destination point for recreational uses.

Make Coastal Dependent Development a Priority (Section 30255)

Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coast-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

The project will provide a dry stack storage building and Sheriff's Boatwright/Lifeguard facility, both of which are coastal dependent uses requiring proximity to the water. In addition, the proposed use replaces a non-priority land use of a temporary parking lot and offices with high priority water-related uses. The Marina del Rey Local Coastal Program policies identify recreational boating as a top priority and encourage the development of additional boat slips. In addition, the dry stack boat storage structure and the mast-up-capable sailboat storage area are consistent with County goals of providing additional boat storage facilities to enhance the availability of recreational opportunities to a larger segment of the population.

Protect Sensitive Coastal Resources (Section 30116)

"Sensitive coastal resource area" means those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity. "Sensitive coastal resource areas" include the following:

(a) Special marine and land habitat areas, wetlands, lagoons and estuaries as mapped and designated in Part 4 of the coastal plan.

(b) Areas possessing significant recreational value.

(c) Highly scenic areas.

(d) Archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer.

(e) Special communities or neighborhoods which are significant visitor destination areas.

(f) Areas that provide existing coastal housing or recreational opportunities for low- and moderate-income persons.

(g) Areas where divisions of land could substantially impair or restrict coastal access.

No sensitive resources identified in this Section 30116 will be negatively impacted. The site is an area "possessing significant recreational value", which will be enhanced by the proposed project. As described in Section 5.3, Biological Resources, several biological resource studies were prepared to assess the project's impact on such resources. The studies determined that the site does not support unique native or oak trees or any sensitive plant species. The site is developed as a temporary parking lot and offices, and there is no habitat of value located on the property. The approximately 20 palm trees along the parking lot perimeter do not support any local bird species. Short-term and long-term potential impacts to marine/animal/plant species are less than significant with mitigation. The project will not interfere with any adopted local, state, or federal regulatory action or permits such as a County Development Agreement, a Natural Community Conservation Plan or an ESA Section 10 permit, none of which are in place.

As the site possesses significant recreational value, the proposed project will convert the site from its current use as a temporary parking lot and offices to a boat storage structure and a Sheriff's Boatwright/Lifeguard facility. The storage structure will significantly increase the availability of recreational boating storage to the general public. The project will also include a promenade leading to a view park where visitors can take advantage of scenic views across Basin H towards Chace Park. The project will enhance recreational opportunities for the entire marina, which is a significant visitor destination area.

Promote Visitor-Serving Facilities (Section 30213)

Lower cost visitor and recreational facilities shall be protected, encouraged and, where feasible, provided. Developments providing public recreational opportunities are preferred.

The dry stack storage structure supports this policy by providing a new recreational facility that adds 345 boat storage spaces plus 30 mast-up-capable boat storage spaces. The facility will focus on providing storage opportunities to smaller crafts from 20 feet to 35 feet, often regarded as "entry-level" vessels. The storage spaces will be provided at competitive rates commensurate with wet slips in the marina. The proposed project also promotes passive, no-cost recreation and enjoyment of the marina with the development of a public promenade leading to a view park at the water's edge. The view park will contain public amenities such as benches, a shade structure, bicycle racks, and a drinking fountain. The existing sidewalk along Fiji Way will be enhanced with landscaping and will continue along the west side of the project site to access the public view park. An existing bicycle path along Fiji Way will be protected for continued use by bicyclists.

d. Marina del Rey Land Use Plan

The Marina del Rey Land Use Plan (LUP), which was certified by the California Coastal Commission on February 8, 1996, serves as the community plan for the Marina del Rey area. This plan constitutes a refinement of General Plan policy and provides a basis for its implementation. The Land Use Plan and the Local Implementation Plan are two components of the Los Angeles County Local Coastal Program. Implementation of the proposed project requires an amendment to the Land Use Plan to allow a change of the land use category from Public Facility to Boat Storage.

The project site is within the Mindanao zone of the LUP. Both Parcel 52 and Parcel GG are designated Public Facility and Water under the LUP. Development potential for the Mindanao zone includes visitor-serving commercial and office uses. The LUP designates a height limit of 45 feet, with up to 75 feet when a 40% view corridor is provided, and except for entrance displays, government offices, and theme towers, which may not exceed 140 feet.

In December 1975, the California Coastal Commission reported to the Governor that the state "should initiate a dry storage program as a supplement to the state's support of small craft harbor development." The LUP notes that the most efficient storage for boats is within a "dry stacked storage building" where boats are moved in and out of racks using forklifts or stacker cranes. This type of storage provides a viable alternative to the more expensive wet slip rental.

The LUP also establishes policies and goals related to coastal visual resources. Protection of existing views within the marina is accomplished through requirements

for view corridors, building height limitations, and architectural design. These policies are carried out through the Specific Plan (Local Implementation Plan), which sets forth specific guidelines for development within the marina.

e. Marina del Rey Specific Plan

The Marina del Rey Specific Plan (Specific Plan) constitutes the primary implementation mechanism for the Marina del Rey Land Use Plan (LUP) as certified. Four specific objectives are identified in the Specific Plan:

- Document various development, preservation, and reconstruction strategies set forth in the LUP
- Establish development standards and guidelines that are the regulatory basis for future development, preservation, and reconstruction efforts in Marina del Rey
- Provide design concepts to guide reconstruction on individual parcels, to aid in the development of vacant land, and to help preserve significant resources
- Establish the governmental review process for new development proposals in Marina del Rey and describe the long-term implementation efforts necessary to accommodate future development

Where provisions of the Specific Plan are in conflict with provisions of County land use regulations, the Specific Plan, acting as the Implementation Program for the LCP/Land Use Plan, shall prevail. Where the Specific Plan is silent, applicable provisions of County Title 22, Planning and Zoning, and the County General Plan shall prevail. The project site is zoned "Specific Plan" by the County of Los Angeles Zoning Code.

The project site land use designation is Public Facility. The allowable uses for this parcel are: publicly owned facilities, administrative offices, fire stations, libraries, police stations, public utility facilities, public parks/picnic areas, right-of-way for bicycle and pedestrian paths, and accessory uses to the permitted uses.

Development standards in the Specific Plan for the Mindanao Development Zone include:

- Building height not to exceed 45 feet unless an expanded view corridor is provided. With the additional view corridor, height shall not exceed a maximum of 75 feet except that boat hoists may exceed this height.
- A continuous 28-foot-wide pedestrian promenade shall be provided and maintained along all bulkheads.
- The regional bicycle trail shall be retained or reconstructed as part of any redevelopment.

In addition, the Specific Plan Local Implementation Program Appendices include Specifications and Minimum Standards of Architectural Treatment and Construction (Standards). The intent of the Standards is to provide guidance for construction and to establish minimum standards, spacing, and other requirements for construction of land and water facilities at Marina del Rey. Any amendment to the Standards will not apply to the Specific Plan until the amendment is certified as an amendment to the LCP.

The current designation for the project site will require an amendment from Public Facility to Boat Storage. Public Facility is defined as: Public infrastructural land uses other than roads, including libraries, harbor administration, public utilities, police and fire facilities. This designation does not include dry stack boat storage facilities.

f. Los Angeles County Green Building Ordinances

In October 2008, the Los Angeles County Board of Supervisors adopted ordinances related to Green Building, Low Impact Development (LID) Standards and Drought Tolerant Landscaping. Per the ordinances, all residential and non-residential construction will be required to comply with the following standards:

- Buildings shall be designed to exceed the 2005 State of California Energy Efficiency Standards, Title 24, Part 6 by a minimum of 15%.
- Landscaped and irrigated areas shall use moisture-sensitive irrigation technologies or high efficiency irrigation systems.
- 70% of all cumulative landscaped areas shall use drought-tolerant plant species selected from the drought-tolerant approved plant list.

- "Green Building and Sustainability Guidelines for the County of Los Angeles" has been published to assist the public in understanding and implementing the measures identified in the Ordinances for green building. The County will use the Leadership in Energy and Environmental Design (LEED) Green Building Rating system as a benchmark for the design, construction, and operation of high performance green buildings. Performance is recognized in five key areas: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. New construction in the County is required to follow the standards established for green building as of January 1, 2009. During the January 1, 2009 to January 1, 2010 timeframe, construction will be required to comply with County of Los Angeles Green Building Standards. After January 1, 2010, new construction of more than 5 dwelling units or in excess of 10,000 square feet of non-residential construction will also be subject to LEED certification.

5.7.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles does not have adopted thresholds to identify

significant land use impacts. Thus, for purposes of this analysis, the applicable thresholds listed in CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact if it:

- Physically divides an established community
- Conflicts with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect
- Conflicts with any applicable habitat conservation plan or natural community conservation plan

5.7.3 Project Impacts Prior to Mitigation

1. Land Use Compatibility

The proposed project contains five main development components: a dry stack boat storage structure, mast-up-capable sailboat storage, an office and customer lounge, a Sheriff's Boatwright/Lifeguard facility, and a public promenade. The project site currently consists of the Sheriff's Boatwright/Lifeguard facility, County offices, and a temporary public parking lot (Exhibit 4.2-1 – Existing Setting and Photo Key Map, page 4-6). The proposed office and customer lounge and Boatwright/Lifeguard facility will replace the existing Department of Beaches & Harbors offices (Exhibit 4.3-1 – Proposed Site Plan, page 4-11). The dry stack boat storage structure and the mast-up-capable sailboat storage area are consistent with the County's goals of providing additional boat storage facilities to enhance the availability of recreational opportunities to a larger segment of the population.

The proposed uses are consistent with the goals of the County General Plan and the Marina del Rey Specific Plan. Dry stack boat storage and attendant facilities and uses are permitted and compatible with the residential, commercial, and boater oriented uses currently existing in the marina.

2. General Plan

The County's General Plan designates the entire Marina del Rey area as Specific Plan. As noted above, one role of the General Plan is to "provide policy parameters to integrate more specific planning efforts in order to ensure a compatible and effective regional approach." This is accomplished through the Marina del Rey Specific Plan. The proposed project is consistent with the Specific Plan designation, and no amendment to the General Plan designation is proposed.

3. Marina del Rey Land Use Plan (Local Coastal Program) Policies

The entire marina lies within the Coastal Zone and is subject to a Local Coastal Program (LCP). The Marina del Rey Land Use Plan (LUP) is a component of the Los Angeles County Local Coastal Program. As such, the LUP provides development guidelines that are consistent with the policies and goals of the California Coastal Act (Coastal Act) related to coastal access and recreation, among others. The following LUP policies, based on Coastal Act policies, are included in the LUP:

a. Access

- Maximum public access to and along the shoreline within the LCP area shall be a priority goal of this Plan, balanced with the need for public safety and the protection of private property rights and sensitive habitat resources. (Policy 1)
- Existing public access to the shoreline or waterfront shall be protected and maintained. All development shall be required to provide public shoreline access consistent with Policy 1. (Policy 2)
- All development in the existing marina shall be designed to improve access to and along the shoreline. All development adjacent to the bulkhead in the existing marina shall provide pedestrian accessways, benches and rest areas along the bulkhead. (Policy 3)
- Public opportunities for viewing the marina's scenic elements, particularly the small craft harbor water areas, shall be enhanced and preserved. (Policy 14)
- All development on the waterfront side of Via Marina, Admiralty Way and Fiji Way shall provide windows to the water, wherever possible, while, at the same time, screening unsightly elements such as parking areas and trash receptacles with landscaping
- All development, redevelopment or intensification on waterfront parcels shall provide an unobstructed view corridor of no less than 20% of the parcel's waterfront providing public views of the marina boat basins and/or channels

The proposed project is consistent with these policies. Primary public access to the marina will be through the availability of the dry stack and mast-up-capable storage facilities, which will accommodate an additional 375 boat storage spaces for recreational boating. This increase in boat storage capacity will provide the opportunity for smaller craft owners to access the waterways and the ocean. The general public will also be provided with view access via a landscaped public promenade along the western edge of the site. To ensure public safety, the promenade has been designed to avoid the project components related to heavy machinery, the crane and sailboat hoist. As previously discussed, the LUP contemplates limiting waterfront access in the interest of public safety. The promenade will overlook the marina, with a small park located at the terminus of the walking path. The park will

include a picnic area with benches. The promenade will be an extension of the existing promenade on Fiji Way along the south boundary of the site. This walkway will be landscaped to provide shade as well as aesthetic amenities. Signage will be placed to notify the public of the promenade and park area.

b. Recreation and Visitor Serving Facilities

The marina has no traditional shoreline, but rather a continuous bulkhead for boating-related uses. The only public beachfront is located at the end of Basin D, on the northwest side of the marina. The LUP includes the following policy related to visitor serving facilities:

- Lower cost visitor and recreational facilities shall be protected, encouraged and, where feasible, provided. Developments providing public recreational opportunities are preferred. (Policy 4)

The proposed project provides additional visitor-serving and recreational opportunities through the development of an additional 375 boat storage spaces (30 mast-up-capable and 345 indoor). The focus is providing for smaller boats from 20 to 35 feet in length with the maximum size limited to about 40 feet in length. The intent of the facility is to make convenient boat storage available to the public. Dry stack storage saves maintenance costs compared to wet slip rental. In addition, the proposed structure is designed to accommodate smaller sized boats, which are more affordable to a larger segment of the general population. On-site parking will be available to accommodate patrons of the boat storage structure.

c. Recreational Boating

The LUP identifies recreational boating as a top priority as noted in the following policy:

- Recreational boating shall be emphasized as a priority use throughout the planning and operation of the marina. To help achieve this goal, the Plan shall strive to ensure that adequate support facilities and services are provided including, but not limited to, the following: boat slips, fueling stations, boat repair yards, boat dry storage yards, launch ramps, boat charters, day-use rentals, equipment rentals and on-going maintenance of the marina harbor and entrance channel, bulkhead repair, pollution control, safety and rescue operations, and sufficient parking for boaters. Emphasis shall be given to providing water access for the small boat owner through provision of public ramp facilities. (Policy 1)

The LUP notes that the California Coastal Commission, in a 1975 report to the Governor, recommended that the state initiate a dry storage program "as a supplement to the state's support of small craft harbor development." The Commission recognized that dry stack storage provides a less costly alternative to wet slips. This recognition and the above-noted policy are both addressed by the proposed project. The project

will include, in addition to the storage structure, a pump-out station, a wash down area, and a fueling station in support of the boater activities. A customer lounge will include a visitor reception facility, showers, restrooms, and personal lockers.

d. Marine Resources

Several reports have been prepared to assess the impacts of the proposed project on biological resources. Results of the studies are reported in the Biological Resources section of this DEIR. There will be no impacts to Coastal Act or LUP policies related to marine resources as a result of the proposed project.

e. Cultural Heritage Resources

A survey and impact assessment was conducted for the proposed project related to historic properties and archaeological sites. It was determined that no impacts would occur from the proposed project to historic or archaeological resources.

f. Land Use

New development within the marina has been designed to be compatible with the Coastal Act as well as the existing use of the marina. High priority is given to the scenic and visual qualities of the development and locations that maintain and enhance public access to the coast. Priority is also given to coastal dependent development. In order to meet the standards set forth in the Coastal Act and the LCP, the County has developed guidelines known as Specifications and Minimum Standards of Architectural Treatment and Construction (Specifications). The Specifications are included as part of the Marina del Rey Specific Plan and set the standards for height and land use, among other things. The Specifications were certified and made a part of the LCP. The proposed project will conform to the design guidelines established therein.

1) Amendments to Local Coastal Program

An LCP amendment is required whenever any portion of a certified LCP is revised. The revision may affect the land use plan (LUP), the implementation plan (LIP), or both. The review process for local governments and the Coastal Commission is similar to that for original LCP submittals. There are five steps in processing LCP amendments:

1. The local government proposes an amendment and meets the minimum requirements for public participation during review;
2. The local government adopts and submits the proposed amendment, along with necessary supporting materials, to the Coastal Commission;

3. Commission staff reviews the submittal filing if complete and determines if it is a minor or de minimis amendment or requires a hearing;
4. The Commission holds a hearing and votes to certify the amendment; and
5. The local government takes any necessary steps to implement the LCP amendment.

If the amendment is substantial, usually both the LUP and the LIP are amended. A revised land use and zoning designation for a parcel requires an amendment to both the LUP and the LIP.

As noted above, the same level of public participation is required for an amendment as for the original LCP. The Commission must vote on the amendment within 90 days of filing in most cases; if the LCP amendment involves only the LIP, the Commission has 60 days. However, the Commission has the authority to extend the voting time limits for a period of time not exceeding one additional year. At the time of this writing, the County of Los Angeles is processing a map and text amendment to the LCP, separate from but related to the proposed project, as well as other "pipeline projects.".

The LCP amendment does not take effect until the Commission certifies it. In addition, the following three steps must be completed for an amendment to become effective:

1. All necessary local governmental follow-up actions are taken;
2. The Executive Director of the Coastal Commission determines that the follow-up actions are legally adequate; and
3. The Commission concurs with the Executive Director's determination.

However, if the Commission's approval did not include any follow-up terms or suggested modifications, then steps 1 through 3 would not be necessary for the certified amendment to become effective.

The proposed project requires an amendment to designate the site Boat Storage and Waterfront Overlay. The site is currently designated Public Facility. This amendment is necessary to allow the amendment to the Specific Plan as described above In Section 4.4, Discretionary Approvals (beginning on page 4-32) and in order to maintain consistency between the County Zoning Code (Specific Plan) and the LCP.

2) LCP Periodic Reviews

Upon completion of a certified Local Coastal Program, the local government assumes most permitting and planning responsibilities. However, Section 30519.5 of the

Coastal Act requires that the Commission "review every certified local coastal program to determine whether such program is being effectively implemented in conformity with the policies of the Coastal Act," and recommend corrective actions where necessary. The Marina del Rey Periodic LCP Review was conducted by the Coastal Commission in 2007-2008. In early 2009, the Commission adopted Revised Findings modifications to the January 2008 approval of the Periodic Review staff report and recommendations. The County was given until April 2010 to formally respond to the CCC staff recommendations and submit its response. The CCC approved the County recommendations, with modifications, at its November 3, 2011 meeting.

4. Marina del Rey Specific Plan

As the primary implementation mechanism for development in the marina, the Specific Plan constitutes the most detailed interpretation of General Plan policy. It is designed to implement the Marina del Rey Land Use Plan through the application of site-specific development standards and guidelines. The entire Marina del Rey is zoned Specific Plan. The Specific Plan identifies land use categories within the marina, which are shown on Exhibit 5.7-1 – Marina del Rey Land Use Plan Area.

The Specific Plan requires a view corridor for parcels located between the water and the first public road. This requirement applies to the proposed project. The site design for the project is such that it exceeds the view corridor requirement of 20% of the water frontage of the site. The dry stack boat storage structure is oriented so that the narrow sides of the rectangular shaped structure will be along Fiji Way to the south and the waterfront to the north. A 200-foot-long, 32-foot-wide public promenade will be located along the western boundary of the site, with a public park at the waterfront. The facility's parking lot will provide approximately 168 feet of open views from Fiji Way to the waterfront. Under the proposed project, approximately 50% of the site will remain open and will provide view corridors to the water. Section 5.1, Aesthetics (beginning on page 5-1) contains a more detailed discussion of the view corridors.

Implementation of the proposed project requires an amendment to the Specific Plan to allow a change of land use category from Public Facility to Boat Storage. The land use designation of Boat Storage allows public and commercial boat launching and storage, including public parking, ramps and associated launching hoists, dry boat storage, boat rentals and instruction, and ancillary support commercial facilities. This amended land use designation would apply to the landside portion of the project site. The waterside portion of the project is classified as Water. The Amendment will also include the application of a Waterfront Overlay Zone (WOZ) to expand the WOZ pattern along Fiji Way on the two parcels immediately west (Parcels 53 and 54). The Specific Plan defines WOZ as "An overlay category applied to most waterfront parcels in addition to the site's primary land use category. Encourages coastal-oriented and coastal-dependent uses on the waterfront, permits the combination of hotel, visitor-serving commercial, marine commercial and the site's primary land use, as well as mixing of uses within a structure." Additionally, the County is requesting an Amendment to the Specific Plan to add the Public Facility land use category to Parcel

49M to allow for the potential development of the Department of Beaches & Harbors headquarters (a portion of which is currently housed in Parcel GG) on this site.

Table 5.7-1 Proposed Changes to Land Use Categories

Property	Size	Land Use Categories	
		From	To
Waterside	1.11 acres	Water	Water
Landside	3.09 acres	Public Facility	Boat Storage + WOZ

Table 5.7-1 depicts the existing and proposed land use categories. The amendment to the Specific Plan allowing the change in land use category to Boat Storage with a WOZ is consistent with the proposed uses and is permitted by the Specific Plan to encourage visitor-serving uses of the marina. A Conditional Use Permit (CUP) allowing dry stack boat storage is required in the Boat Storage designation. In addition, a CUP will be required to allow for the proposed dock fueling station which will be provided for use by the dry stack storage patrons.

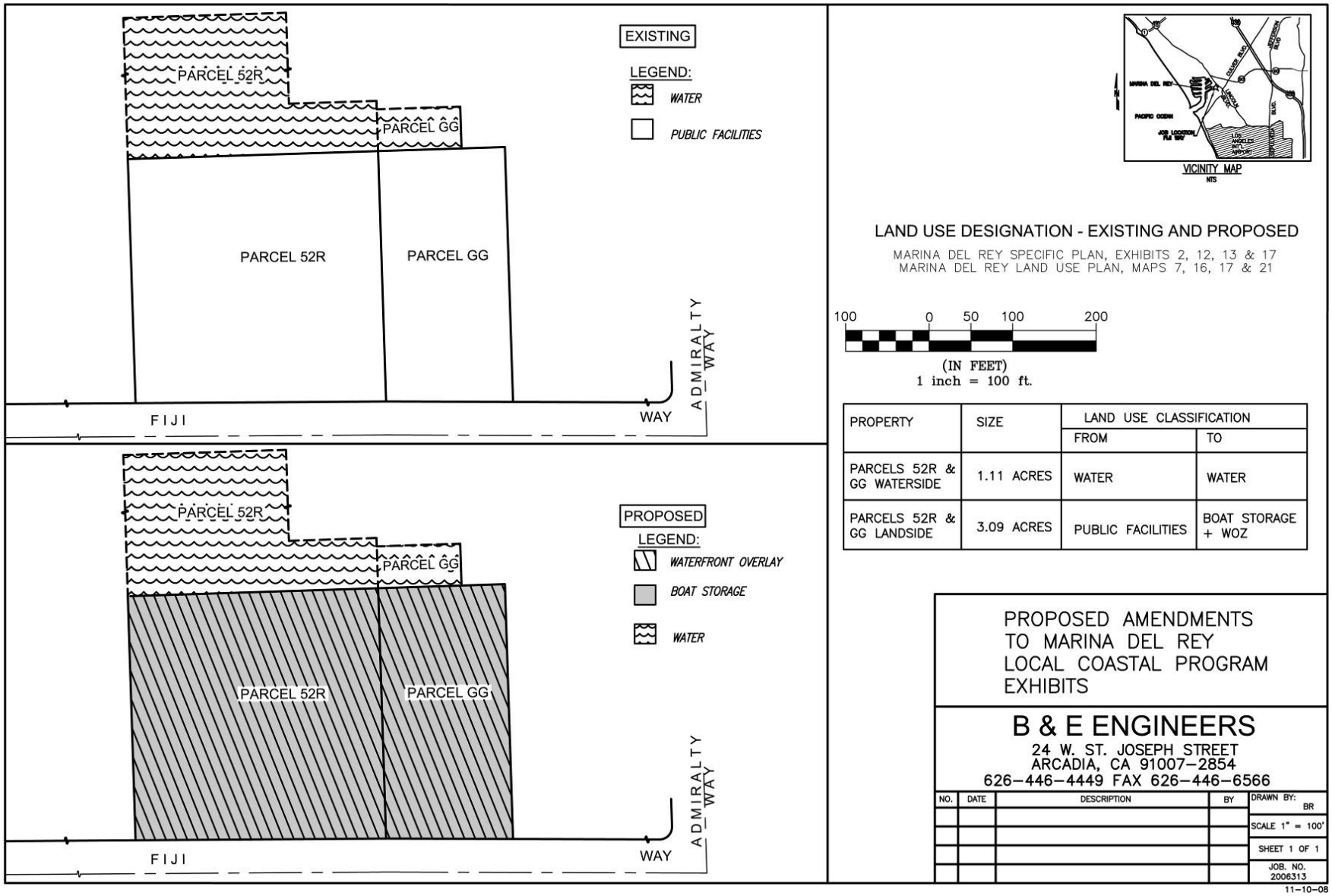
In addition, a Conditional Use Permit (CUP) is required for publicly owned uses necessary to the maintenance of the public health, convenience, or general welfare (the Sheriff's Boatwright/Lifeguard facility).

5. Local Coastal Program

The Local Implementation Plan (LIP) of the Local Coastal Program has been incorporated into Title 22 – Zoning Code as the Marina del Rey Specific Plan, which acts as the implementation program. All development in Marina del Rey requires a Coastal Development Permit. Coastal Development Permits are processed in accordance with the provisions of Part 17 of Title 22. The proposed project will require an amendment to the LCP to reflect the change of classification from Public Facility to Boat Storage and the addition of the Waterfront Overlay Zone.

An amendment to the LCP is necessary to allow for the amendment to the Specific Plan as described above. The amendment will maintain the consistency between the Specific Plan and the LCP. The LCP Land Use Plan will be updated to reflect the change of classification on the property from Public Facility to Boat Storage with the WOZ and to add the Public Facility classification to Parcel 49M. Exhibit 5.7-2 – Proposed LCP Land Use Designations above depicts the existing and proposed land use categories for the site.

A change to the Water land use category will also be necessary to allow boat storage facilities on a parcel's waterside. The amendment request includes: 1) a text amendment to LACC §22.46.1670.B to add "Dry stack storage attached to a landside structure" to the list of permitted uses; and 2) a text amendment to LACC §22.46.1690 to allow dry stack storage facilities on the water-designated portion of a parcel at the heights allowed by the land use category on the land side of a parcel.



PROPERTY	SIZE	LAND USE CLASSIFICATION	
		FROM	TO
PARCELS 52R & GG WATERSIDE	1.11 ACRES	WATER	WATER
PARCELS 52R & GG LANDSIDE	3.09 ACRES	PUBLIC FACILITIES	BOAT STORAGE + WOZ

Exhibit 5.7-2 – Proposed LCP Land Use Designations

Table 5.7-2 and Table 5.7-3 below provide a summary of the proposed LUP and LIP text and map amendments. Proposed deletions are indicated by ~~strikeout~~ and proposed additions underlined.

Table 5.7-2 Proposed Amendments to the Marina del Rey Land Use Plan

Section	Proposed Change
LUP Text Amendments	
A.1. Shoreline Access (Page 1-3)	Public (County) property, subject to restrictions – Parcel ~~GG~~ 49M ~~at the eastern end of Basin H~~.
A.1. Shoreline Access (Page 1-6)	Minimum Awareness: Shoreline adjacent to private and commercial uses like apartments, ~~and~~ boat clubs, and dry stack facilities.
A.1. Shoreline Access (Page 1-7)	3. All development in the existing Marina shall be designed to improve access to and along the shoreline. All development adjacent to the bulkhead in the existing Marina shall provide pedestrian access ways, benches and rest areas along the bulkhead, except where safety may be compromised, such as boatyards and dry stack facilities.
A.2. Recreation & Visitor-Serving Facilities (Page 2–5)	Parcel 52 is being proposed as the site for a dry stack boat storage structure. ~~the new office headquarters for the Dept. of Beaches and Harbors.~~ The Waterfront Overlay Zone is applied to the landside portion of this parcel to ensure that opportunities for public access are not limited except with respect to the allocated development intensity. If a use other than Boat Storage is proposed, a same-size Boat Storage facility shall be located elsewhere in Marina del Rey. ~~A~~ The new office will be relocated to Parcel 49M. ~~necessitated when the current office site on Parcel 62 is demolished to make way for the new marina channel entrance for Area A. A yet-to-be determined number of public parking spaces will be incorporated into the design of this new office facility.~~
A.2. Recreation & Visitor-Serving Facilities (Page 2–6)	FIGURE 3 COUNTY OWNED PARKING LOTS Lot / Parcel / Address / Capacity / Remarks 4 / 49M / 13500 Mindanao Way / 227 (minimum) / Replacement Parking (124 existing, 103 Parcel FF) ~~52 / 13051 Fiji Way / 245 / Temporary Parking~~
A.2. Recreation & Visitor-Serving Facilities (Page 2–8)	No designated public parking areas, including, but not limited to Lots OT, UR or FF, except for Temporary Parking areas, shall be converted to uses other than public parking or public park purposes.
A.3. Recreational Boating (Page 3-3)	~~Boats stored at parcel 52 will be brought by trailer to the ramp or will use an on-site hoist. In addition, the lessee of parcel 53 is designing a 140 boat dry stacked storage facility~~. A dry stack storage structure is proposed for Parcel 52, and mast-up storage with an on-site launch hoist is proposed for Parcel GG. The Water Overlay Zone will provide an opportunity for other potential visitor serving amenities of a limited character (such as a beverage facility at the park, boat rentals, bike rentals, and the like).
A.3. Recreational Boating (Page 3-5)	Deck storage for sailboats may be constructed on a portion of Parcel 49, and dry stack storage may be constructed on Parcels 52 and GG ~~parcels 53~~ or on other parcels with a marine commercial or visitor serving commercial designation, as long as ~~public parking and~~ views are preserved and adequate public parking is made available.
C.8. Land Use Plan (Page 8-11)	Water: Permitting recreational uses, wet boat slips, dry stack storage attached to a landside structure, docking and fueling of boats, flood control and light marine commercial.
C.8. Land Use Plan 9. Mindanao DZ (Page 8-18)	WOZ Parcel 52 - Boat Storage ~~Public Facility~~ - Water WOZ Parcel GG - Boat Storage ~~Public Facility~~ - Water
C.8. Land Use Plan 9. Mindanao DZ (Page 8-18)	Parcel 49M - Parking - Public Facility
LUP Map Amendments	
C.8. Land Use Plan (Map 17: Mindanao DZ Land Use) (Maps 7, 16 & 21)	52 (land): Boat Storage + Waterfront Overlay 52 (water): Water GG (land): Boat Storage + Waterfront Overlay GG (water): Water
C.8. Land Use Plan (Map 17: Mindanao DZ Land Use) (Maps 7 & 16)	49M: Parking + Public Facility

Table 5.7-3 Local Implementation Plan (LIP) Text Amendments

Section	Proposed Change
LIP Text Amendments	
LACC 22.46.1080	- Water: A category for recreational use, wet boat slips, dry stack storage attached to a landside structure, docking and fueling of boats, flood control and light marine commercial.
LACC 22.46.1670.B	B. The following permitted uses: - Bicycle and pedestrian path rights of way - Boat docks, piers - Boating-related equipment storage - Dry stack storage attached to a landside structure - Public view areas - Schools for boating, sailing and other marine-related activities in which teaching is done on the water - Wet slips
LACC 22.46.1690	These standards shall apply for all uses in the Water category: - Building height is limited to a maximum of 15 feet, except that dry stack storage facilities shall be allowed at heights permitted by the land use category on the land side of the parcel - Development of new boat slips must be accompanied by adequate parking and landside facilities, including boater restrooms.
LACC 22.46.1880	- Parcel 52 Categories: Boat Storage ~~Public Facilities~~ Waterfront Overlay Water - Parcel GG Categories: Boat Storage ~~Public Facilities~~ Waterfront Overlay Water
LACC 22.46.1880	- Parcel 49M Categories: Parking Public Facility
LACC 22.46.1880	Required public improvements: - On Parcels 52, GG, 53 and 54, said promenade shall only be constructed along the water if determined to be safe. ~~and shall connect the promenade to Fiji Way~~ Access to the waterfront shall be provided along the property line between Parcels 52 and 53. A view park shall be constructed in lieu of the promenade. - In the event that a dry stack facility is not constructed on Parcel 52, no other use may be established until such time as a new site for a dry stack facility is designated in Marina del Rey.
LIP Map Amendments	
LACC 22.46 (Exhibit 2: Land Use Plan) (Exhibit 13: Mindanao DZ) (Exhibits 12 & 17)	52 (land): Boat Storage + Waterfront Overlay 52 (water): Water GG (land): Boat Storage + Waterfront Overlay GG (water): Water
LACC 22.46 (Exhibit 2: Land Use Plan) (Exhibit 13: Mindanao DZ) (Exhibit 12)	49M: Parking +Public Facility

6. Los Angeles County Green Building Ordinances

As of January 1, 2009, all new construction is required to comply with County of Los Angeles Green Building Standards based on the Green Building Ordinances adopted in October 2008. As stated in the Ordinances, green building practices are intended to conserve water, conserve energy, conserve natural resources, divert waste from

landfills, minimize impacts to existing infrastructure and promote a healthier environment. The proposed project, as designed, is a highly energy efficient structure, using building materials that allow natural light to provide illumination during daylight hours and soft night lighting during nighttime hours. Water conservation methods for indoor and outdoor use will be incorporated to reduce water consumption. A landscaping plan will include low water and drought tolerant species. Dry stack storage facilities are not included in green building regulations. However, the office/lounge/boatwright building will be designed to comply with all standards in force and required by the County to accomplish the goals of the Green Building Ordinances.

7. Coastal Development Permit

A CDP is required for the extension of the dry stack boat storage structure over the bulkhead area. Section 22.46.1160 of the Los Angeles County Code (Access Restrictions) allows the restriction of public access around the marina in the interest of pedestrian safety. However, all such restrictions must be reviewed for incorporation into the conditions of a coastal development permit for new development. Due to the use of a crane and hoist, close proximity to pedestrians could create potentially dangerous conditions. Therefore, the proposed pedestrian promenade has been located along the western edge of the site and along Fiji Way. A CDP is required to evoke the authority to locate the promenade away from the waterfront in the interest of public safety.

The dry stack boat storage structure has been designed to allow a portion of the structure to span the bulkhead area and extend over the water to facilitate the transfer of boats by a crane from the storage structure to the water and vice versa. The Coastal Commission, which retains jurisdiction over development between the sea and the first public road paralleling the sea and developments located on tide lines, submerged lands and public trust lands pursuant to Section 30601 of the Coastal Act, will be required to review and approve the over-water design.

8. Parking Permit Modification

5.11 – Transportation and Traffic (beginning on page 5-249) of the DEIR analyzes the traffic and parking impacts associated with implementation of the proposed project. The Design Standards in the Marina del Rey LUP require a parking ratio of 0.5 spaces per boat storage space and a parking ratio of 1 space per 400 square feet of office space. Using these ratios would result in a requirement for 197 spaces. The project proposes a parking supply of 134 spaces based on parking ratios used at similar facilities in a variety of locales. The conclusion of the Traffic Impact Analysis prepared for the project is that application of a 1 space per 3 dry storage space ratio will provide adequate parking. Valet parking was included in the analysis for peak operating times which would increase the functional parking capacity.

A parking permit modification will be required to permit the provision of 1 space per 3 dry storage spaces and 9 spaces for the Boatwright facility.

9. Conclusion

The proposed project will not result in any significant environmental impacts as identified in the CEQA Thresholds. The project does not divide an established community or conflict with any applicable land use plan or habitat/natural community conservation plan. The amendments and permits noted above will be necessary to bring the project into conformance with adopted policies and regulations. The project will be consistent with the General Plan, the Specific Plan, the Local Coastal Program, and County Zoning Code.

As part of the County review process, the proposed project has been reviewed by the Design Control Board (DCB). The DCB functions as an advisory committee for any new design development or existing design modifications within unincorporated Marina del Rey. The project was reviewed by the DCB on May 31, 2007. The DCB recommended disapproval for the following reasons: 1) the proposed project extends over the water, and 2) the project will provide no public promenade along the waterfront. However, since DCB review is advisory in nature, the County retains approval authority.

5.7.4 Mitigation Measures

No mitigation is required. With the noted amendments, Coastal Development Permit, conditional use permits, and permit modification, there will be no impacts related to land use.

5.7.5 Level of Significance

The project is consistent with the surrounding land uses, and helps to achieve the top priorities of the LCP. "The first priority of the Marina is to maximize public boating facilities; the second priority is to provide boating-related facilities and services for the boating public and traditional boating organizations."[31] The proposed project meets both priorities. However, the project will require an amendment to the LCP LUP and LIP. No mitigation is proposed in the area of Land Use and Planning, and no mitigation is necessary. The proposed project will not result in significant adverse unavoidable land use impacts.

5.7.6 Cumulative Impacts

The proposed amendments to the Marina del Rey Specific Plan (LIP) and the Land Use Plan (LUP) will allow the development of a dry stack boat storage structure on the site. The existing Sheriff's Boatwright/Lifeguard facility will be retained. Marina del Rey is

[31] LUP, §C.8, p 8-2, 8-3.

an urbanized site which is typified by access to and recreational use of the marina by the general public. The proposed use is consistent with the existing uses in the marina. The over-water feature is not unique in Marina del Rey, because other existing structures in the marina have over-water components. Such structures include a fuel facility, office-type facility, boater facilities, cranes, loading platforms, a conference facility, and a university row house. The provision of additional boat storage capacity is a stated goal of the LUP and the LIP.

The land uses represented by the amendments to the Local Coastal Program will have no cumulative impacts in the Marina del Rey area.

5.8 Noise

This section summarizes the potential short-term and long-term noise impacts associated with the proposed project. Impacts may include traffic noise, aircraft noise, construction noise, operational noise, and noise from surrounding uses. The information in this section was based on an Environmental Noise Study for the Proposed Dry-Stack Boat Storage Facility (Noise Study) prepared by Wieland Acoustics, dated January 9, 2009. A copy of the Environmental Noise Study is included as Appendix I of this DEIR.

5.8.1 Existing Setting

The project site contains an existing Sheriff's Boatwright/Lifeguard facility, office trailers used by the Los Angeles County Department of Beaches & Harbors, and a 245-space temporary public parking lot. The boatwright facility will remain on the site. New construction will consist of a dry stack boat storage structure, a mast-up-capable storage area, an office/customer lounge, and a public promenade including a small park.

The project site is currently impacted by adjacent development and mobile noise sources from vehicles entering Basin H of Marina del Rey along Fiji Way, the access road on which the project site is located. Immediately adjacent to the west of the project site is a boatyard facility. Farther west are Fisherman's Village and the Villa Venetia apartment complex. Burton Chace Park is located across Basin H, northwesterly of the site. A public boat storage facility and public boat launch ramp are located immediately east and north of the site. Immediately south of the site, across Fiji Way, is the Ballona Wetlands Ecological Reserve. Noise measurements taken for the proposed project include existing noise resulting from the adjacent uses.

1. Noise Descriptors

Decibels

Sound pressures can be measured in units called microPascals. More commonly, sound pressure levels are described in logarithmic units of ratios of actual sound pressures. These units are called bels. In order to provide a finer resolution, a bel is subdivided into 10 decibels, abbreviated dB. Absolute decibel units convey the "absolute" noise volume from a given source, which corresponds to the precise energy level associated with the sound wave. Alternatively, the "perceived" noise volume relative to human sensitivity is known as the A-weighted decibel (dBA) and is subjective to the hearer.

Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces a

sound pressure level of 70 dB when it passes an observer, two automobiles passing together would produce a sound level pressure of 73 dB, not 140 dB. Therefore, doubling the traffic volume or the speed will increase the level by only 3 dB. Conversely, halving the traffic volume would reduce the noise level by 3 dB.

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz and perceives higher and lower frequency sounds of the same magnitude with less intensity. A sound level meter measures sound by approximating the frequency response of the human ear with sound pressure level adjustments applied to the sound. The A-scale approximates the frequency response of the average young ear when listening to most everyday sounds. A range of noise levels common for in- and outdoor activities is shown in Exhibit 5.8-1. Measurements of this noise level are accomplished by recording values of the A-weighted level during representative periods within a specified portion of the day.

Community Noise Equivalent Level (CNEL)

A given level of noise may be more or less tolerable, depending on the duration of exposure. There are numerous measures of noise exposure that consider not only the A-level variation of noise, but also the duration of the disturbance. The California Department of Transportation's Division of Aeronautics and the California Commission on Housing and Community Development have adopted the community noise equivalent level (CNEL). The CNEL scale represents a time weighted 24-hour average noise level based on the A-weighted decibel. The measure weights the average noise levels for the evening hours (7:00 p.m. to 10:00 p.m.), increasing them by 5 dB, and weights the late evening and morning hour noise levels (10:00 p.m. to 7:00 a.m.) by 10 dB. The daytime noise levels are combined with these weighted levels and averaged to obtain a CNEL value. Exhibit 5.8-2 depicts the outdoor CNEL at typical locations.

Peak Particle Velocity

There are several different methods used to quantify vibration amplitude. Of these, peak particle velocity (PPV) is the most appropriate for evaluating potential building damage since it is related to the stresses that are exerted on a building. Construction activities such as blasting, pile driving, and operation of heavy construction equipment induce the ground and structure vibrations that can range from annoying for local residents to structural damage. PPV is most commonly assessed in the vertical direction because the floors of buildings vibrate mostly in the vertical direction. Near the source of the vibration, the horizontal ground particle velocity is commonly lower than the vertical component. Far from the source of vibration, the ground horizontal and vertical velocities are about the same order of magnitude.

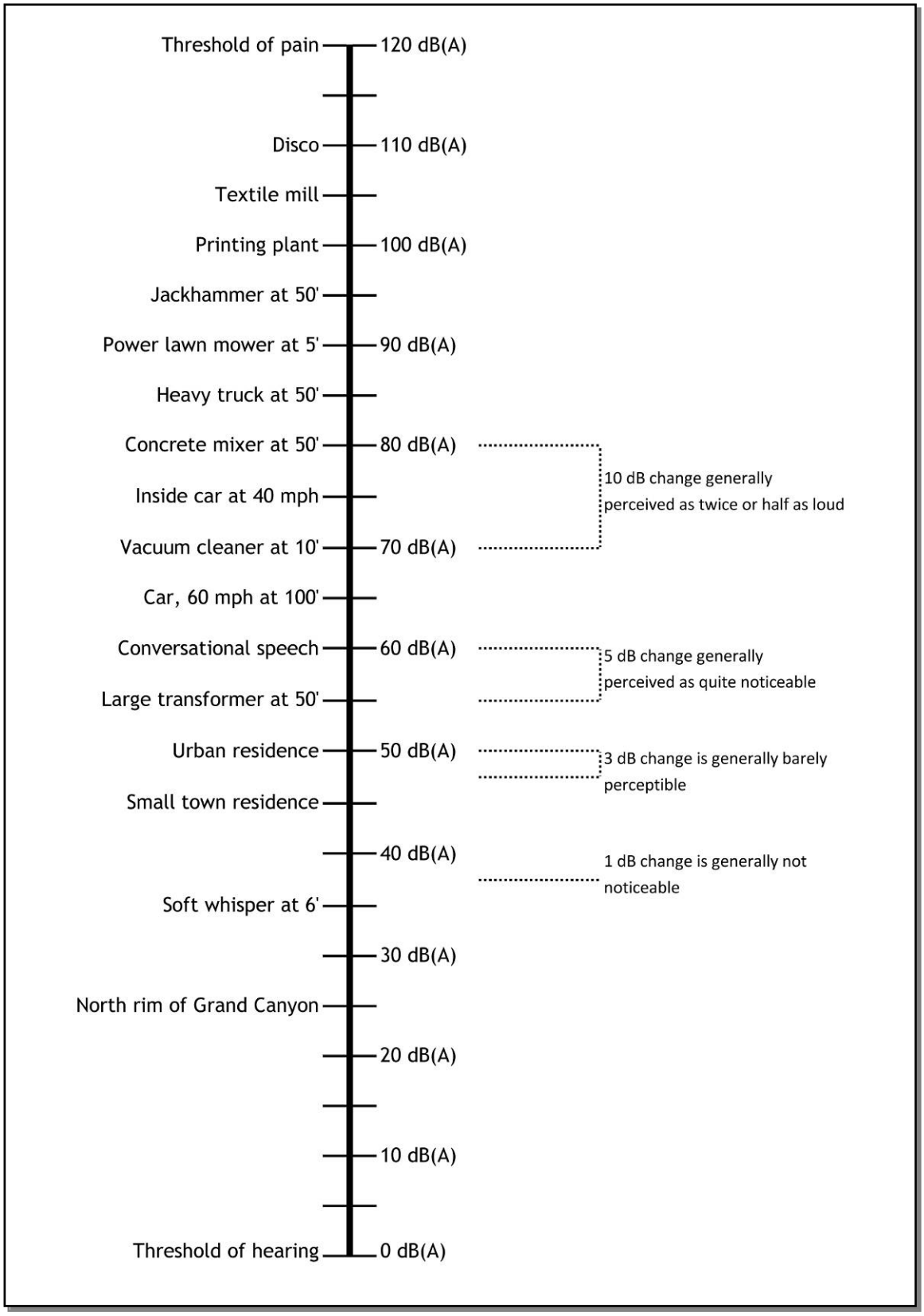


Exhibit 5.8-1 – Common Noise Sources and A-Weighted Noise Levels

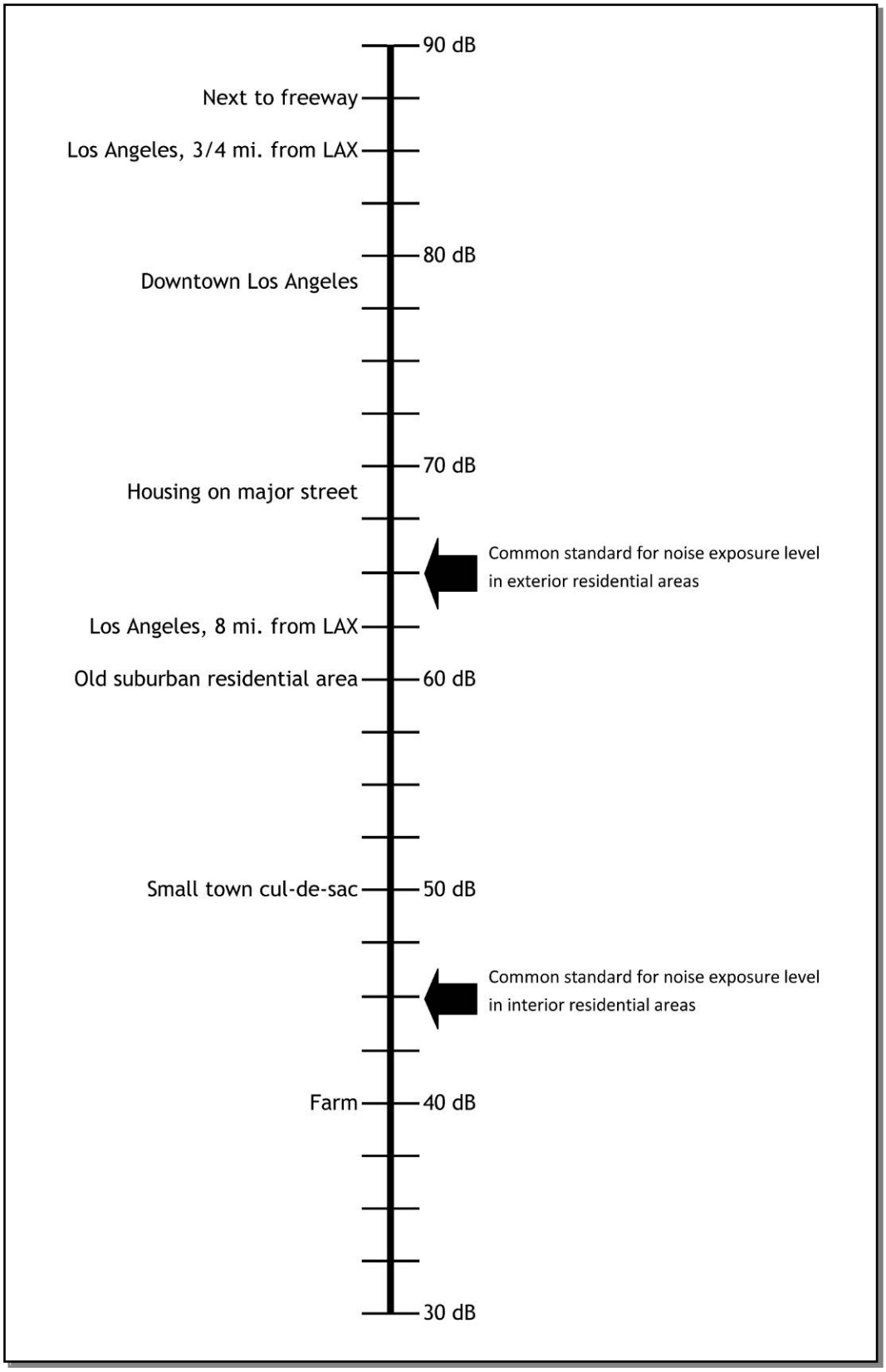


Exhibit 5.8-2 – Common CNEL Noise Exposure Levels at Various Locations

Vibration Velocity Level

It has been determined that the "average" vibration amplitude that the human body responds to is not a useful measure. Rather, vibration velocity level (Lv) is used to evaluate human response. Lv describes the root mean square (rms) velocity amplitude of the vibration. This value may be described as a "smoothed" amplitude or a "magnitude-averaged" amplitude. The rms is typically calculated over a 1-second period. For an rms velocity of 1 in/sec, the equivalent PPV value is 1.4 in/sec. The maximum Lv describes the maximum rms velocity amplitude that occurs during a vibration measurement.

Table 5.8-1 FTA Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
Reinforced concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

General vibration damage criteria developed by the Federal Transit Administration are summarized in Table 5.8-1.

Table 5.8-2 Caltrans Vibration Damage Criteria

Building Category	PPV (in/sec) Continuous Sources	PPV (in/sec) Transient Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.08	0.12
Fragile buildings	0.1	0.2
Historic and some old buildings	0.25	0.5
Older residential structures	0.3	0.5
New residential structures	0.5	1.0
Modern industrial/commercial buildings	0.5	2.0

Table 5.8-2 identifies the criteria used by Caltrans to evaluate the severity of problems associated with vibration. As noted, the risk of structural damage still exists even at relatively low vibration velocities (in particular due to dynamic settlements caused in loose soils).

2. Noise Criteria

County of Los Angeles Code

The Los Angeles County Code, Chapter 12.08, establishes exterior noise standards displayed in Table 5.8-3.

Table 5.8-3 Los Angeles County Exterior Noise Standards

Land Use of Receptor Property	Daytime 7:00 am to 10:00 pm	Nighttime 10:00 pm to 7:00 am
Noise-sensitive areas	45 dB(A)	45 dB(A)
Residential properties	50 dB(A)	45 dB(A)
Commercial properties	60 dB(A)	55 dB(A)
Industrial properties	70 dB(A)	70 dB(A)

The standards in Table 5.8-3 may not be exceeded for a cumulative period of more than 30 minutes in any hour. However, shorter cumulative periods of higher noise levels are permitted within an hour. In that case, the standards are increased by 5 dB for a cumulative period of more than 15 minutes in any

hour, by 10 dB for a cumulative period of more than 5 minutes in any hour and by 15 dB for a cumulative period of more than 1 minute in any hour. At no time may the intruding noise exceed the standards of the above table by plus 20 dB.

The exterior noise standard for measurement locations on the boundary of two different zones is the arithmetic average of the noise standards for both zones. If an intruding noise from an industrial property is impacting another noise zone, the applicable standard is the daytime standard indicated in the above table for the receptor property. If a pure tone or impulsive noise is emitted, the standards of Table 5.8-3 above are reduced by 5 db.

Construction noise limits are found in Section 12.08.440 of the County Code. Construction work is prohibited between the weekday hours of 7:00 p.m. and 7:00 a.m., or any time on Sundays or holidays if the noise disturbance crosses a residential or commercial property line. In addition, maximum construction noise levels may not exceed the limits identified in Table 5.8-4 when measured at the affected buildings.

Table 5.8-4 Los Angeles County Construction Noise Limits

	Single-Family Residential	Multi-Family Residential	Semi-Residential/ Commercial	Business Structures
Mobile Equipment –				
Daily, except Sundays and legal holidays, 7 am to 8 pm	75 dB(A)	80 dB(A)	85 dB(A)	85 dB(A)
Daily, 8 pm to 7 am and all day Sunday and legal holidays	60 dB(A)	64 dB(A)	70 dB(A)	85 dB(A)
Stationary Equipment –				
Daily, except Sundays and legal holidays, 7 am to 8 pm	60 dB(A)	65 dB(A)	70 dB(A)	N/A
Daily, 8 pm to 7 am and all day Sunday and legal holidays	50 dB(A)	55 dB(A)	60 dB(A)	N/A

The following Code sections impose the identified limits:

- Section 12.08.460 – prohibits loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between 10:00 pm and 6:00 am in such a manner as to cause a noise disturbance.
- Section 12.08.530 – prohibits the operation of any air conditioning or refrigeration equipment in such a manner that exceeds 55 dB(A) at any point on a neighboring property, or 50 dB(A) at the center of a neighboring patio, or 50 dB(A) outside the neighboring living area window nearest the equipment location.
- Section 12.08.560 – prohibits the operation of any device that creates vibration velocity levels of more than 0.01 in/sec over the frequency range of 1 to 100 Hz at or beyond the property boundary of the source if on private property, or at 150 feet from the source if on a public space or public right-of-way.

- Section 12.08.570 – specifically exempts all legal vehicles operating in a legal manner within the public right-of-way or on private property from the provisions of the noise ordinance.

County of Los Angeles General Plan

The County's General Plan identifies a number of policies related to noise. However, it does not provide any quantitative standards for regulating acceptable exterior and interior noise environments at residential land uses. The General Plan is currently undergoing an update process, including updated policies related to noise standards for residential development. The proposed policies include:

- Residential development should be avoided in areas of the County where outdoor ambient noise levels exceed a CNEL of 55 dB unless interior noise levels from exterior sources can be mitigated to less than 45 dB CNEL.
- Construction of noise barriers is encouraged – either separately or in conjunction with other acoustical mitigation techniques – in new development projects where the circumstances warrant their inclusion.
- Landscaping and vegetation berms are encouraged along roadways and adjacent to other noise-generating sources as a means of increasing the absorption of noise energy and separation distance.

The following policies are included in the current Noise Element of the General Plan:

1. Promote the necessary organization adjustments within county government to establish a central authority which identifies technological opportunities, conduct studies, assesses effectiveness of programs, sets standards and recommends transportation noise mitigation techniques, programs and alternatives.
2. Establish acceptable noise standards consistent with health and quality of life goals and employ effective techniques of noise abatement through such means as building code, noise, subdivision and zoning ordinances.
3. Determine and evaluate the present noise levels associated with all major transportation facilities in the county.
4. Coordinate with and assist the various cities in dealing with the problem of noise and provide leadership and technical expertise when requested by other jurisdictions.
5. Coordinate with federal, state and city governments in developing and implementing noise abatement programs.
6. Monitor the programs and policies of the responsible special districts, regional, state and federal agencies in order to ensure that they effectively exercise their mandate to control the sources of noise for new, proposed or existing transportation facilities, vehicles or aircraft.

7. Encourage the state Department of Transportation to conduct an active highway noise abatement program with scenic/aesthetic considerations.
8. Determine and evaluate the future noise levels associated with all major transportation facilities in the county.
9. Establish noise criteria in the specifications for purchase of vehicles, aircraft and their components intended for use by the County including all equipment needed for maintenance and repair of such vehicles and aircraft.
10. Encourage the federal and state governments and other agencies to work for standardization and simplification of the measurement methods used in assessing noise impact.
11. Reduce the present and future impact of excessive noise from transportation sources through judicious use of technology, planning and regulatory measures.
12. Seek funds from the appropriate levels of government to underwrite the costs of noise abatement programs.
13. Urge continued federal and State research into the noise problem and recommend additional research programs as problems are identified.
14. Recommend needed legislation to the State and federal government which will provide for noise abatement and the distribution of the costs of noise abatement programs among the producers of noise.
15. Promote increased public awareness concerning the effects of noise.
16. Encourage cities to adopt definitive noise ordinances and policies that are consistent throughout the county.

The proposed project will be required to conform to the existing standards established by the County related to short-term and long-term noise impacts.

5.8.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles has not adopted thresholds of significance for noise. According to Appendix G of CEQA Guidelines, the proposed project would have a potentially significant impact with respect to noise if the project will result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact will occur if:
    1. The noise levels generated by the project exceed the exterior limits specified in the County of Los Angeles Code; or

2. Construction or project-related activities generate an average noise level in excess of 60 dB(A) at a nesting site in the adjacent Ballona Wetlands during the breeding season.

- Exposure of persons to or generation of, excessive ground-borne vibration or ground-borne noise levels. This impact will occur if any device on the project site causes the vibration velocity level to exceed 0.01 in/sec at an adjacent property. A significant impact will also occur if the PPV exceeds 0.20 in/sec at any existing building.
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. This impact will occur if:
  1. Project traffic increases the CNEL at any off-site residence by a perceptible amount of 3 dB or more if the exterior CNEL without project is 65 dB or less; or
  2. Project traffic increases the CNEL at any off-site residence by any amount if the exterior CNEL without project exceeds 65 dB; or
  3. Activity noise levels at the project site increase the ambient noise level at any off-site sensitive receptor by 3 dB or more.
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. This condition will occur if:
  1. Construction of the proposed project increases the ambient noise level at any off-site receptor by 3 dB or more; and
  2. The construction equipment generates noise levels in excess of the Los Angeles County standards.
- Exposure of persons residing or working in the project area to excessive noise levels if the project is located within an airport land use plan, within two miles of a public airport or public use airport or within the vicinity of a private airstrip.

5.8.3 Project Impacts Prior to Mitigation

Noise sources in the study area include traffic on the local streets, airport takeoffs from Los Angeles International Airport and marina activities. The nearest sensitive receptors to the project site include:

- An existing, currently unoccupied commercial building approximately 55 feet to the southwest
- An existing natural habitat approximately 125 feet to the southeast
- Existing commercial properties approximately 290 feet to the northwest
- Existing commercial properties approximately 835 feet to the northeast

- The nearest residential area, an apartment community on Lincoln Boulevard, approximately 1,440 feet to the northeast

Table 5.8-5 Summary of Ambient Noise Measurements

Location	Location Description	Average Noise Level, Leq
1	Ballona Wetlands Natural Habitat	49.0 dB(A)
2	Entry of Marina Terrace Apartments	71.1 dB(A)
3	Dental & pharmacy building on Admiralty near Bali	69.3 dB(A)
4	Near Marina del Rey Hotel	51.8 dB(A)
5	The Boathouse off Mindanao Way	55.7 dB(A)

Noise measurements were taken at five locations throughout the study area using an integrated sound level meter (Model 820) and an acoustical calibrator (Model CAL200) manufactured by Larson Davis Laboratories. All instruments meet the requirements of the American National Standards Institute. The microphone was positioned at a height of five feet above ground at the measurement locations. Table 5.8-5 illustrates the average noise levels at those locations.

The results of the noise measurements summarized above are provided in Appendix I to the Environmental Noise Study (Appendix I in this DEIR). The locations of the measurements are graphically depicted on Exhibit 5.8-3 and correspond to the location numbers in Table 5.8-5 above.

1. Traffic Noise

Table 5.8-6 Existing Traffic Noise Levels

Street Segment	Average Daily Traffic Volume	Estimated CNEL 50' from Near Lane Centerline	Distance to CNEL Contour from near Lane Centerline		
			60 dB	65 dB	70 dB
Admiralty Way					
North of Bali	28,010	67.5 dB	200'	83'	--
Bali to Mindanao	23,140	69.0 dB	255'	110'	--
Mindanao to Fiji	14,570	67.0 dB	185'	75'	--
Bali Way					
West of Admiralty	1,370	56.5 dB	--	--	--
Admiralty to Lincoln	7,660	64.0 dB	110'	--	--
Fiji Way					
West of Admiralty	6,360	62.5 dB	83'	--	--
Admiralty to Lincoln	17,260	66.5 dB	170'		
East of Lincoln	2,100	59.0 dB	-		
Lincoln Boulevard					
North of Bali	35,100	70.5 dB	320'	143'	56'
Bali to Mindanao	30,790	70.0 dB	300'	130'	50'
Mindanao to Fiji	34,690	70.5 dB	320'	143'	56'
South of Fiji	45,460	73.0 dB	320'	143'	56'
Mindanao Way					
West of Admiralty	1,090	55.5 dB	--	--	--
Admiralty to Lincoln	13,150	64.0 dB	110'	--	--
East of Lincoln	18,090	65.5 dB	143'	56'	--

A Traffic Study prepared by Linscott, Law & Greenspan dated December 20, 2007 was used to analyze the existing traffic noise exposures in the study area. A model developed by the Federal Highway Administration was used to estimate traffic noise levels adjacent to various street segments based on traffic volumes, speeds, truck mix, site conditions and distance from the roadway to the receptor. California reference energy mean emission (Calveno) levels developed by Caltrans were used in the prediction model. The results of the modeling are included in Appendix II to the Noise Study (Appendix I) and are summarized in Table 5.8-6.

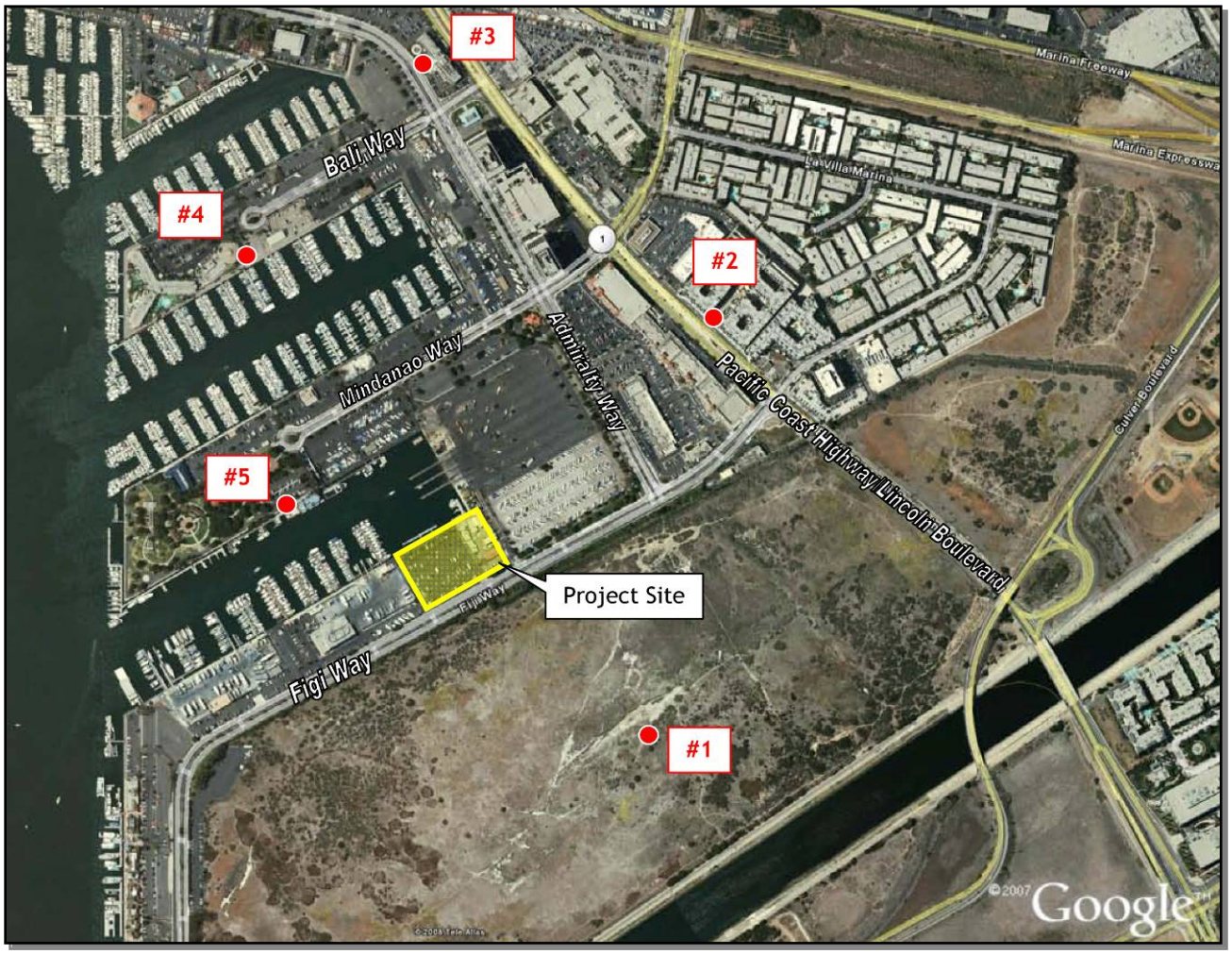


Exhibit 5.8-3 – Noise Measurement Locations

An analysis was conducted to identify the future traffic noise exposures in the year 2011, both with and without the project. The analysis was conducted using a proprietary version of the highway traffic noise prediction model developed by the Federal Highway Administration. The model was used to estimate traffic noise levels adjacent to various street segments. Results were obtained using the California reference energy mean emission (Calveno) levels developed by Caltrans. The results are summarized in Table 5.8-7 and Table 5.8-8 for future without project and future with project conditions, respectively. The results are presented in terms of an unmitigated CNEL at a distance of 50 feet from the centerline of the nearest travel lane. The Federal Highway Administration utilizes the 50-foot distance in its noise prediction model.

Table 5.8-7 Future Without Project Traffic Noise Levels

Street Segment	Average Daily Traffic Volume	Estimated CNEL 50' from Near Lane Centerline	Distance to CNEL Contour from near Lane Centerline		
			60 dB	65 dB	70 dB
Admiralty Way					
North of Bali	33,808	68.0 dB	215'	90'	--
Bali to Mindanao	29,759	70.0 dB	300'	130'	50'
Mindanao to Fiji	18,303	68.0 dB	215'	90'	--
Bali Way					
West of Admiralty	1,500	57.0 dB	--	--	--
Admiralty to Lincoln	8,991	65.0 dB	130'	50'	--
Fiji Way					
West of Admiralty	9,995	64.0 dB	110'	--	--
Admiralty to Lincoln	20,012	67.0 dB	185'	75'	--
East of Lincoln	2,140	59.0 dB	--	--	--
Lincoln Boulevard					
North of Bali	38,877	71.0 dB	340'	155'	62'
Bali to Mindanao	33,686	70.5 dB	320'	143'	56'
Mindanao to Fiji	38,406	71.0 dB	340'	155'	62'
South of Fiji	51,726	73.5 dB	490'	235'	100'
Mindanao Way					
West of Admiralty	1,170	56.0 dB	--	--	--
Admiralty to Lincoln	17,644	65.5 dB	143'	56'	--
East of Lincoln	22,164	66.5 dB	170'	69'	--

Table 5.8-8 Future With Project Traffic Noise Levels

Street Segment	Average Daily Traffic Volume	Estimated CNEL 50' from Near Lane Centerline	Distance to CNEL Contour from near Lane Centerline		
			60 dB	65 dB	70 dB
Admiralty Way					
North of Bali	33,820	68.0 dB	215'	90'	00
Bali to Mindanao	29,790	70.0 dB	300'	130'	50'
Mindanao to Fiji	18,340	68.0 dB	215'	90'	--
Bali Way					
West of Admiralty	1,500	57.0 dB	--	--	--
Admiralty to Lincoln	9,010	65.0 dB	130'	50'	--
Fiji Way					
West of Admiralty	10,120	64.0 dB	110'	--	--
Admiralty to Lincoln	20,100	67.0 dB	185'	75'	--
East of Lincoln	2,140	59.0 dB	--	--	--
Lincoln Boulevard					
North of Bali	38,940	71.0 dB	340'	155'	62'
Bali to Mindanao	33,730	70.5 dB	320'	143'	56'
Mindanao to Fiji	38,450	71.0 dB	340'	155'	62'
South of Fiji	51,770	73.5 dB	490'	235'	100'
Mindanao Way					
West of Admiralty	1,170	56.0 dB	--	--	--
Admiralty to Lincoln	17,650	65.5 dB	143'	56'	--
East of Lincoln	22,170	66.5 dB	170'	69'	--

Based on the above tables, the conclusion of the analysis is that the future traffic-generated CNEL within the study area will be the same with or without the project. Therefore, based on the thresholds of significance identified herein, the impact of project-generated traffic noise is less than significant.

2. Los Angeles International Airport (LAX)

The project site is located approximately 4 miles north of LAX and well outside of the 65 dB CNEL noise contour. However, noise from aircraft overflights may occasionally be experienced in the study area. Exhibit 5.8-4 depicts the 75, 70 and 65 dB CNEL contours for LAX and the location of the project site in relation to the contours. Impacts due to occasional overflights in the project vicinity will be less than significant as no sensitive receptors will be residing on the site.

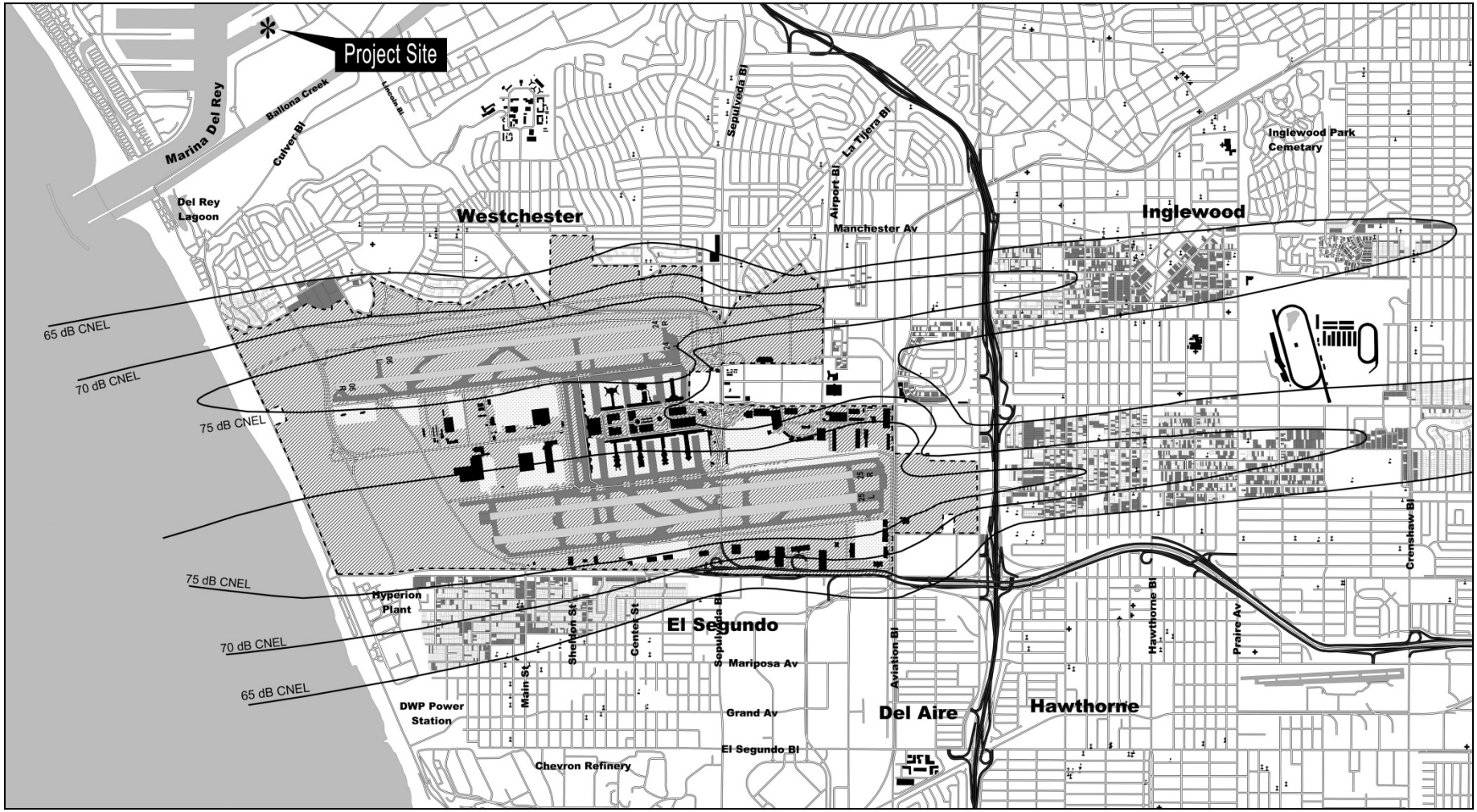


Exhibit 5.8-4 – Noise Contours for Los Angeles International Airport

3. Short-Term Impacts

a. Construction Noise

Table 5.8-9 Construction Noise Levels

Equipment Type Or Activity	Typical Average Noise Level at 50. ft. in dB(A)
Auger drilling rig	85
Backhoe	80
Concrete pump	81
Crane	85
Dozer	85
Grader	85
Impact wrench	85
Impact pile driver	101
Portable power generator	82
Saws	85
Truck (18 wheel flatbed)	84
Truck (2,500 gallon water)	85
Truck (concrete pump)	82
Truck (concrete transport)	85
Vibrator	83
Welder	74

Source: Federal Highway Administration Roadway Construction Noise Model Version 1.0 – February 2, 2006

Construction of the project will comply with the noise regulations in the County Code. The Code allows construction between 7:00 a.m. and 7:00 p.m. on Monday through Saturday. No construction activity is allowed on Sunday or holidays.

Noise levels during construction will depend on the type, number, and duration of use of the construction equipment. However, the exposure to construction noise will be short-term and will cease with completion of the construction. It is anticipated that project construction will last approximately 11 months. Table 5.8-9 shows typical noise levels associated with construction-related machinery.

The geotechnical report for the project noted that pile foundations will be used to support the dry stack boat storage structure, the visitors' center/office/boatwright/ lifeguard building and the new dock and boat spaces. However, the technique to install the piles has not yet been determined. It is likely that a combination of techniques will be utilized based on whether the piles will be waterside or landside. Therefore, the noise analysis considered three possible pile installation techniques as follows:

- Pile Driving – a hammer is dropped onto the pile in order to drive the pile into the ground.
- Vibratory Pile Driving – rotating masses attached to the pile head to create vertical vibrations. The vibrations disturb the adjacent soil, reducing the friction and allowing the pile to move downward under its own weight.
- Poured-in-place piles – a drill is used to create a hole in the ground. Concrete piles are poured into the pre-drilled holes.

A fourth method for in-water pile driving involves a jetting technique whereby water is forced under pressure around and under the pile to lubricate and/or displace the surrounding soil. Impact driving would then be required to complete the installation once the pile was positioned. Noise produced by this method would be the same as impact driving, but fewer strikes would be required to set the pile. However, the jetting phase of the installation would result in much lower noise levels.

Table 5.8-10 Maximum Construction Noise Levels at Sensitive Receptors

Sensitive Receptor Location	Impact Pile Driver	Vibratory Pile Driver	Paver (Poured-In-Place Piles)
50' from noise source	101	96	89
Commercial building to the SW	100	95	88
Ballona Wetlands	93	88	81
Commercial properties to NW	86	81	74
Commercial properties to NE	77	72	65
Apartments on Lincoln Blvd.	72	67	60

The noisiest piece of equipment for pile driving or vibratory pile driving is the pile driver, or hammer. If poured-in-place piles are used, the noisiest equipment will be the paver used to finish the site surface. Table 5.8-10 provides the estimated maximum noise levels at each of the sensitive receptor locations based on the three methods of pile installation.

The County does not have a maximum noise level standard for business structures or for natural habitats. However, the County's standard of 65 dB(A) will be exceeded at the apartment complex if pile driving or vibratory pile driving is used and the impact will potentially be significant. If piles are poured in place, the impact will be less than significant.

Table 5.8-11 Average Construction Noise Levels at Sensitive Receptors

Sensitive Receptor Location	Impact Pile Driver	Vibratory Pile Driver	Paver (Poured In-Place Piles)
50' from noise source	94	89	86
Commercial building to the SW	93	88	85
Ballona Wetlands	86	81	78
Commercial properties to NW	79	74	71
Commercial properties to NE	70	65	62
Apartments on Lincoln Blvd.	65	60	57

Estimating the average noise level from construction equipment by applying a usage factor to the maximum noise levels provided the results in Table 5.8-11 below. The usage factor is based on the fact that equipment does not operate at its noisiest mode constantly. A usage factor of 20% was applied to pile driving and vibratory pile driving and a usage factor of 50% was applied to use of a paver.

While the County does not have a maximum noise standard for the natural habitat area, the average noise level is expected to exceed 60 dB(A) during construction, regardless of the pile installation technique used. This could potentially result in a significant impact if construction occurs during nesting season based on the location and proximity of nests.

Table 5.8-12 Estimated Noise Increases Due to Project Construction

Sensitive Receptor Location	Pile Installation Technique Used	Estimated Average Construction Noise	Existing Noise Level[1]	Estimated Noise Increase Due to Construction
Commercial building to the southwest	Impact Driver Vibratory Driver Poured in Place	93 dB(A) 88 dB(A) 85 dB(A)	54.4 dB(A)[2]	39 dB 34 dB 31 dB
Natural habitat to the southeast	Impact Driver Vibratory Driver Poured in Place	86 dB(A) 81 dB(A) 78 dB(A)	49.0 dB(A)	37 dB 32 dB 29 dB
Commercial properties to the northwest	Impact Driver Vibratory Driver Poured in Place	79 dB(A) 74 dB(A) 71 dB(A)	55.7 dB(A)	23 dB 18 dB 15 dB
Commercial properties to the northeast	Impact Driver Vibratory Driver Poured in Place	70 dB(A) 65 dB(A) 62 dB(A)	64.9 dB(A)[2]	6 dB 3 dB 2 dB
Apartment community to the northeast on Lincoln Boulevard	Impact Driver Vibratory Driver Poured in Place	65 dB(A) 60 dB(A) 57 dB(A)	71.1 dB(A)	1 dB 0 dB 0 dB

1 Existing noise levels are measured unless otherwise noted.
2 Estimated based on existing traffic data.

As depicted in Table 5.8-12 above, the ambient noise levels due to temporary construction activities will be increased by more than 3 dB at the commercial properties to the northwest and southwest and at the natural habitat. Impact or vibratory pile driving will increase noise levels by 3 dB at the commercial properties to the northeast, but poured-in-place piles will not cause an increase. The apartments will not experience a 3 dB increase and the impact will be less than significant.

b. Construction Vibration

Pile driving will be the primary source of vibration during construction. The geotechnical report states that pile foundations will be utilized to support the dry stack boat storage structure, the visitors' center/office/boatwright building and the new dock and boat spaces. However, the pile installation technique for the project has not yet been determined. A letter report dated December 10, 2008 by Van Beveren and Butelo (Appendix F of this DEIR) states that an indicator pile program should be implemented. The report also suggests that measurements be taken at 50-foot intervals during pile driving operations.

Typical pile driving produces a peak particle velocity (PPV) of 0.644 in/sec at a distance of 25 feet. Typical vibratory pile driving produces a PPV of 0.170 in/sec at a distance of 25 feet. Typical poured-in-place pile installation produces a PPV of 0.089 in/sec at a distance of 25 feet.

Typical pile driving also produces a vibration velocity level (Lv) of 0.158 in/sec at a distance of 25 feet. Vibratory pile driving produces an Lv of 0.045 in/sec at a distance of 25 feet and poured-in-place installation produces an Lv of 0.022 in/sec at a distance of 25 feet. Using published formulas for determining impacts, the noise study estimates the distances from the construction activities at which vibration levels will

exceed the thresholds identified. Table 5.8-13 summarizes the estimated distances for each pile driving technique.

Table 5.8-13 Estimated Distances at Which Vibration Thresholds Are Exceeded

Pile Driving Technique	Estimated Distance at Which Threshold for Potential Building Damage Exceeded	Estimated Distance at Which County Standard is Exceeded
Impact pile driving	73'	164'
Vibratory pile driving	22'	70'
Drilling for poured-in-place piles	12'	44'

The commercial building to the southwest of the project is within approximately 55′ of the project structures. Impact pile driving will result in vibration levels at the commercial building exceeding the thresholds of 0.2 in/sec PPV for potential building damage and the County's Lv standards of 0.01 in/sec. Vibratory pile driving will be below the threshold for PPV but exceed the County's Lv standard. Poured-in-place installation of piles will result in less than significant impacts to the commercial building.

The remaining sensitive receptor buildings are located outside the critical distances for potential damage due to pile driving vibration. No vibration impacts were assessed at the habitat area since there are no buildings on the site and no standards regarding the impact of vibration on habitat areas. The most accurate evaluation of vibration is in situ during the actual construction process.

4. Long-Term Impacts

The proposed project will introduce new noise sources into the study area. Noise will be related to the operation of the dry stack structure crane equipment and increased traffic. The Sheriff's Boatwright/Lifeguard operation will continue providing maintenance activities and has been considered as part of the existing operational noise as well as future operational noise. Noise generating activity was not occurring at the boatwright during the two site visits by the noise consultant. Therefore, no noise measurements were obtained from the facility. Activities at the boatwright are sporadic with periods of more than a week between noise-generating activities to days of continuous noise activities including grinding, sand blasting and hammering. The boatwright facility was not analyzed in the noise study since it is an existing use that will continue as part of the project.

The dominant source of operational noise will be the Stack & Stow crane system that will be used to transport the boats between the water and the storage bays. The crane will lift the boat from the water and travel along the length of the building, placing the boat into a storage bay in one of the six levels of storage. Conversely, the crane will remove boats from their spaces and move them to the boat queuing area. The Noise Study used crane operation information provided by ACE World Companies which determined that noise levels of up to 85 dB(A) would occur at a distance of 12 feet. Up to 12 boats could potentially be moved during the busiest hours of operation. Based on this information, Wieland constructed a computer noise model using Sound

PLAN software to estimate potential noise levels that will occur at nearby receptors. Variables within the model include the distance to the receptors, noise reduction provided by the dry stack boat storage structure, reverberation within the building, ground conditions between the noise source and the receptor and barrier effects that will be provided by intervening buildings.

Table 5.8-14 below provides results for estimated operational noise levels as well as existing noise levels at each receptor. The estimated average noise level is during the busiest hour of operation.

Table 5.8-14 Estimated Dry Stack Boat Storage Structure Noise Levels

Sensitive Receptor Location	Estimated Average Dry Stack Structure Noise Level, L_{eq}	Existing Noise Level, L_{eq}[1]	Estimated Noise Increase Due to Dry Stack Structure
Commercial building to the southwest	50 dB(A)	54.4 dB(A)[2]	1 dB
Ballona Wetlands	36 dB(A)	49.0 dB(A)	0 dB
Commercial properties to the northwest	40 dB(A)	55.7 dB(A)	0 dB
Commercial properties to the northeast	39 dB(A)	64.9 dB(A)[2]	0 dB
Apartment community to the northeast on Lincoln Boulevard	35 dB(A)	71.1 dB(A)	0 dB

1 Existing noise levels are measured unless otherwise noted.
2 Estimated based on existing traffic data.

For comparison purposes, Wieland Associates provided information regarding noise levels associated with the use of a forklift rather than the crane system. Using noise measurements at a maintenance yard, average forklift noise levels are estimated to range from 63 to 66.5 dB(A) at a distance of 50 feet. Measurements for a large, motor-driven forklift of the type that would be necessary for the Boat Central facility show that maximum noise levels are estimated to be as high as 78.5 dB(A) at a distance of 50 feet.

Estimated noise levels at all commercial property locations are below the County of Los Angeles daytime and nighttime noise standards of 60 dB(A) and 55 dB(A), respectively. Noise levels are also below the County daytime and nighttime noise standards of 50 dB(A) and 45 dB(A), respectively, at the apartment complex to the northeast of the project. The projected noise level at the Ballona Wetlands is below 60 dB(A). Therefore, the estimated dry stack boat storage structure operational noise will not increase the noise level at any identified receptor by 3 dB or more and the impact is less than significant.

5. Summary of Impacts

a. Short Term Impacts

Traffic on Fiji Way is the primary off-site source of noise related to the proposed project. The future traffic-generated CNEL has been determined to be the same with or without implementation of the project and, therefore, no significant impact will occur.

The project may result in the exposure of persons to noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. This potentially significant impact will occur at the apartment community to the northeast of the project site if impact pile driving or vibratory pile driving is used during construction. An impact may also occur at the natural habitat if construction occurs during the nesting season and nests are in close proximity.

The project construction may generate ground-borne vibration or ground-borne noise levels. This impact may occur at the commercial building to the southwest of the project if impact pile driving or vibratory pile driving is used during construction. Therefore, the short term impact would be significant.

Construction of the project will produce a substantial temporary or periodic increase in the ambient noise levels in the project vicinity above levels existing without the project. This impact will occur at commercial properties to the southwest and northwest of the site regardless of the pile installation technique used.

b. Long-Term Impacts

The project will not produce a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

The project will not result in the exposure of persons residing or working in the vicinity to excessive noise levels as a result of activities at Los Angeles International Airport. Therefore, the impact is not significant.

c. Potentially Unavoidable Impacts

The Noise Study included potentially unavoidable impacts in the event that the poured-in-place pile driving technique is not feasible. These impacts include:

- Maximum noise levels in excess of the County's standards at the apartment community to the northeast of the project site
- Increases in the ambient noise of more than 3 dB at commercial properties northwest of the project site
- Potentially excessive vibration levels at the commercial building to the southwest of the project site.

Mitigation measures have been included to minimize the impact of construction noise at the surrounding properties and to minimize the risk of vibration-induced building damage if other methods of pile driving are used.

5.8.4 Mitigation Measures

N-1 During the construction phase, applicant shall ensure that all construction activities shall be limited to the hours and days permitted by the Los Angeles County Code.

N-2 During the construction phase, applicant shall ensure that all construction and demolition equipment shall be fitted with properly sized mufflers.

N-3 During construction, applicant shall ensure that all noise generating equipment shall be located as far as practicable from the surrounding properties.

N-4 During construction, applicant shall ensure that poured-in-place piles shall be used where feasible. A qualified geotechnical engineer shall review the feasibility of this method, including assessing the necessary depth of the holes to ensure piles are supported in bedrock or sufficiently dense soils.

N-5 Prior to construction, applicant shall ensure that an acoustical study shall be performed based on the final construction methodology to investigate alternative means of reducing noise impacts from impact pile driving or vibratory pile driving.

N-6 Prior to construction, applicant shall ensure that a qualified structural and/or geotechnical engineer shall review the proposed construction methodologies to ensure that vibration from drilling and other activities does not pose a risk of building damage, particularly due to dynamic soil settlement.

N-7 Prior to construction, applicant shall ensure that an indicator pile program as outlined in the December 10, 2008 letter report by Van Beveren and Butelo will be performed prior to proceeding with pile installation.

N-8 During construction, applicant shall ensure that a qualified structural and/or geotechnical engineer shall be on-site to perform tests and observations to ensure the structural stability of the structures in the vicinity of the construction area. Such observations may include vibration velocity measurements inside and/or outside of potentially affected buildings.

5.8.5 Level of Significance after Mitigation

Implementation of the mitigation measures provided herein will reduce potential impacts due to construction vibration. However, some short-term construction impacts are significant and unavoidable, even after mitigation. These include:

- Temporary increases in the ambient noise of more than 3 dB at commercial properties and at Area A.
- Noise levels in excess of 60 dB(A) at Area A during construction, if construction occurs during nesting/breeding season.

These impacts are temporary and will cease upon construction completion. No long-term significant and unavoidable impacts will occur with project implementation.

5.8.6 Cumulative Impacts

The Environmental Noise Study (Appendix I) indicates that projected traffic-related noise in the year 2011 would not result in noise level increases in excess of the County noise standards. Operational impacts resulting from the proposed uses are below the County of Los Angeles daytime and nighttime noise standards for the dry stack boat storage structure. The Sheriff's Boatwright/Lifeguard facility will not increase the noise levels at the commercial or residential areas by 3 dB or more and impacts are less than significant. The project has the potential to temporarily increase the ambient noise levels due to construction. This temporary impact is significant and unavoidable.

5.9 Public Services

This section provides a discussion and analysis of public services that may be affected by development of the proposed project. Baseline information on existing public agencies that provide public services to the project site is identified and evaluated for potential impacts that could occur as a result of the project.

5.9.1 Existing Setting

1. Police and Fire Services

Fire protection and emergency medical service to the project site would be provided by the Los Angeles County Fire Department. A fire station is located at 4433 Admiralty Way serving Marina del Rey, approximately one mile from the project site. The Los Angeles County Sheriff's Department Marina del Rey Station is located on Fiji Way and includes six patrol boats operated by the Harbor Patrol.

2. County Offices

Modular offices for the Los Angeles County Department of Beaches & Harbors are located on Parcel GG.

3. Schools

Marina del Rey is served by the Los Angeles County Unified School District. There are no schools located within Marina del Rey.

4. Parks

Burton Chace Park is located across Basin H northeasterly of the project site. Also within the marina area are Yvonne B. Burke Park along Admiralty Way between Basins E and F, and Aubrey Austin Park which overlooks the main channel entrance to Marina del Rey.

5. Libraries

A Los Angeles County library is located at 4533 Admiralty Way in Marina del Rey. The library was built in 1976 to serve the marina clientele and includes a nautical collection to serve the informational needs and interests of small boaters. The total collection at this library consists of approximately 72,000 books, 12,000 video and audio titles, 87 magazine and newspaper subscriptions, and other special materials such as a large print collection and local history clippings file. In addition, the library has online library catalogs that provide access to the entire County library collection

and online reference databases. The library is accessible to the disabled and has 7,443 square feet on one floor with a reading area facing the harbor.

5.9.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles does not have adopted thresholds to identify significant impacts to public services. Thus, for purposes of this analysis, the applicable thresholds listed in CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact if it will result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the need for new or physically altered government facilities, the construction of which could cause significant environmental impact, in order to maintain acceptable service ratios, response time or other performance objectives for fire protection, police protection, schools, parks, libraries or other public facilities.

5.9.3 Project Impacts Prior to Mitigation

1. Police and Fire Services

The site, as currently developed, has fire hydrants in place as part of the fire protection system for the entire marina. It is not anticipated that the proposed development would result in an increase in calls for service, and no additional personnel or equipment would be required to serve the project. Development of the site will be required to comply with all applicable code and ordinance requirements for construction, access, water main, fire flows, and fire hydrants. Plans will be submitted to the Los Angeles County Fire Department for review and approval.

The County offices located on Parcel GG of the project site will require relocation to another site in the marina to be determined by the County. The project proposes a 2,835-square-foot Sheriff's Boatwright/Lifeguard facility, which will be located in the same building as the office/customer lounge for the boat storage structure. A fenced 2,200-square-foot Boatwright yard will be located immediately north of the building and will allow for maintenance and repair operations for the Boatwright/Lifeguard equipment. It is not anticipated that the project itself will generate the need for additional service from the Sheriff's Department, and no additional personnel or equipment will be required to serve the project. The relocation of the County offices will not impact any existing services related to police or fire protection.

2. County Offices

The County offices of the Department of Beaches & Harbors that are located on Parcel GG will require relocation to another site in the marina. The site has not yet been determined by the County. The relocation of the County offices will not impact any

existing services, as the relocation will take place prior to any construction activity related to the proposed project.

3. Schools

As noted, there are no schools within the Marina del Rey harbor area. The schools that serve Marina del Rey residents are located north of Washington Boulevard and east of Lincoln Boulevard. The project proposes no new residential development and, therefore, there will be no impact to existing or planned schools.

4. Parks

In addition to the existing parks in Marina del Rey, the project proposes to provide a passive park at the water's edge overlooking the marina. The park will include hardscape features such as a picnic area with benches. The public will access the park via a promenade that will be approximately 32 feet wide by 200 feet long. The path will be landscaped with five feet of vegetation along the side of the dry stack storage structure, which will act as a buffer between the path and the building. Signage will be provided to direct the public to the promenade and the park. The addition of the park will provide an enhanced setting for viewing the marina compared to the existing setting. Currently, a sidewalk along the waterfront extends from the Sheriff's Department facilities to the boat repair/maintenance facility adjacent to the site. No provision exists for recreation or seated viewing of the marina. The park will be an additional benefit to the existing parks and beaches within the marina, and no impact to parks will occur with project implementation.

5. Libraries

The existing County library that serves Marina del Rey will not be impacted by development of the project as proposed. No residential units are proposed, and no new residents will require use of the library facilities. Therefore, there will be no impact to the existing library with project implementation.

5.9.4 Mitigation Measures

The proposed project would not result in significant public services impacts. No mitigation measures are required.

5.9.5 Level of Significance after Mitigation

No unavoidable significant impacts to public services are associated with the project.

5.9.6 Cumulative Impacts

Project and cumulative impacts related to public services are not considered significant. No existing services will be eliminated, and no additional requirement for the existing services will occur. The proposed addition of a passive park where none currently exists will be a positive benefit to the marina residents and visitors.

5.10 Recreation

This section discusses the potential impacts to recreation and recreational resources of the surrounding community.

5.10.1 Existing Setting

After decades of planning, the construction of Marina del Rey as a pleasure craft harbor began in 1957 as a joint Federal-County of Los Angeles project. After several delays and construction problems, the breakwater construction began in 1963 to protect the harbor against the wave action to which it was excessively vulnerable. Marina del Rey was finally opened in April 1965. Since that time, the original purpose and goal of the marina has been maintained through the balance of recreational, commercial, and residential uses. In addition, the County strives for a balance between public and private interests as evidenced by the mix of uses currently in place.

The marina currently contains 2 beaches, 4 parks, 3 commercial shopping areas, in excess of 30 restaurants, 6 hotels, 16 apartment complexes, 21 anchorages, County offices, and a United States Coast Guard facility. When the Local Coastal Program (LCP) for the marina was certified in 1984, the marina provided 6,189 boat slips, boating being the predominant coastal recreational opportunity within the marina.[32] An Amendment to the LCP in 1996 noted that a total of 5,923 boat slips were available. A subsequent boat slip study of the marina, which was published in April 2001, excluded previously counted unapproved slips and found a total of 4,626 County-approved and Code compliant slips.

1. Boating

A study by Noble Consultants, Inc., which was released for public review in March 2009, was prepared for the purpose of recommending an appropriate slip size mix using current standards for boat slip sizes and the back-up space requirements based on guidelines from the California Department of Boating and Waterways (DBW). The study notes that new construction and renovation of existing marinas must also comply with the Americans with Disabilities Act standards for access, further reducing the number of wet slips that can be built. Based on the study results, approximately 5,000 boat slips are currently in the marina, excluding berths used for temporary, transient, lessons/training, and government use. The study also noted a total of 817 dry storage spaces within the marina.

In recent years, a number of dock renovation projects in the marina were approved by the California Coastal Commission (CCC) that included replacement and reconfiguration of existing docks resulting in a reduction of 448 slips. However,

[32] California Coastal Commission, Adopted Revised Findings for Marina Del Rey Periodic LCP Review Staff Report.

according to forecasts from a 2002 survey by the DBW, between 2000 and 2020 the overall number of boats in all of California will increase by a growth rate of 1.4% to 2.5% per year (13,337 to 23,092 boats per year). Most of the growth is expected to be in boats under 26 feet in length. Notwithstanding the growth in the smaller sized boats, the study also noted that the demand is highest for larger slips.

The DBW study noted that statewide, only 8% of boats under 26 feet are stored in water, and 76.5% are stored on trailers. For boats over 26 feet, 84.2% are stored in the water and 14.5% are stored on trailers. The marina currently offers 817 dry boat storage spaces in 6 locations to support existing storage needs, including storage space for small watercraft such as kayaks and canoes adjacent to Marina Beach. A stated goal of the LCP is to provide additional dry storage within the marina to increase the recreational boating opportunities for a larger segment of the public. In addition to boating, the marina contains other visitor- and resident-serving recreational amenities such as the waterfront promenade and the bicycle trail.

In its recently completed Local Coastal Program Periodic Review, the CCC noted some of the major accomplishments of the Department of Beaches & Harbors relative to coastal management efforts. These include expansion of public shoreline access, youth programs, a water taxi and summer shuttle system, the improvement of recreational facilities, and the implementation of water quality improvements. The CCC has supported dry stack boat storage as a positive alternative to increase recreational opportunities by increasing available boat storage facilities.

2. Waterfront Promenade

Development within the marina is required by the Marina del Rey Local Coastal Program (LCP) to provide pedestrian access to the shoreline, unless public safety is an overriding consideration.[33] Access to Basin H is restricted on both sides of Parcel 52 due to the existing facilities, which do not allow for a continuous public promenade along the water frontage. However, the public can view the Basin from the waterfront boundary of Parcel 52, which is currently a temporary public parking lot. A waterfront promenade exists for most development within the marina, taking into consideration the mandate to consider public safety. The proposed project will incorporate a public promenade from Fiji Way leading to a passive waterfront view park. In addition, the existing public walkway adjacent to Fiji Way will be enhanced with landscaping including shrubs and shade trees. The walkway will connect with the promenade feature leading to the view park. Signage will direct the public to the promenade and the waterfront park.

3. Bicycle Trail

A 22.3-mile bike path from Torrance Beach to Santa Monica weaves through the outskirts of Marina del Rey and provides a coastline experience for the walking, jogging, roller skating, and biking public. Known as the South Bay Bike Trail, the trail

[33] LUP, p 1-2 and 1-3; Marina del Rey Local Implementation Program, Section 22.46.1160.

runs adjacent to the project site along Fiji Way. This bicycle path provides the public with a lower cost recreational opportunity consistent with the goals of the LCP. Bicyclists have historically used the temporary public parking lot on Parcel 52 as a starting point for using the bicycle trail. The lot will be unavailable to the general public commencing with the construction phase of the project. Alternative parking areas will be available at the public boat launch ramp and in Fisherman's Village. Per the Marina del Rey Specific Plan regulations, the regional bicycle trail shall be retained or reconstructed as part of any redevelopment project. Construction activities and staging will not result in any closure of the bike path. Development of the proposed project will not impact this recreational amenity.

5.10.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles does not have adopted thresholds of significance for recreation. Thus, for the purpose of this analysis, the applicable thresholds listed in the CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact with respect to recreation if it would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

The following analysis will consider these thresholds to determine if the project, as proposed, will result in significant impacts requiring mitigation measures.

5.10.3 Project Impacts Prior to Mitigation

The LCP, as amended and certified in 1996, contains policies addressing recreation and visitor-serving facilities. These policies include the protection of existing facilities and the provision of new opportunities for recreation. Additional dry stack boat storage is an identified need in order to provide boating opportunities to a larger number of people. The Boat Central project proposes to add dry stack storage capacity for 345 boats and 28 boat trailers. In addition to the boat storage structure, 30 mast-up capable dry storage spaces will be included.

1. Boating

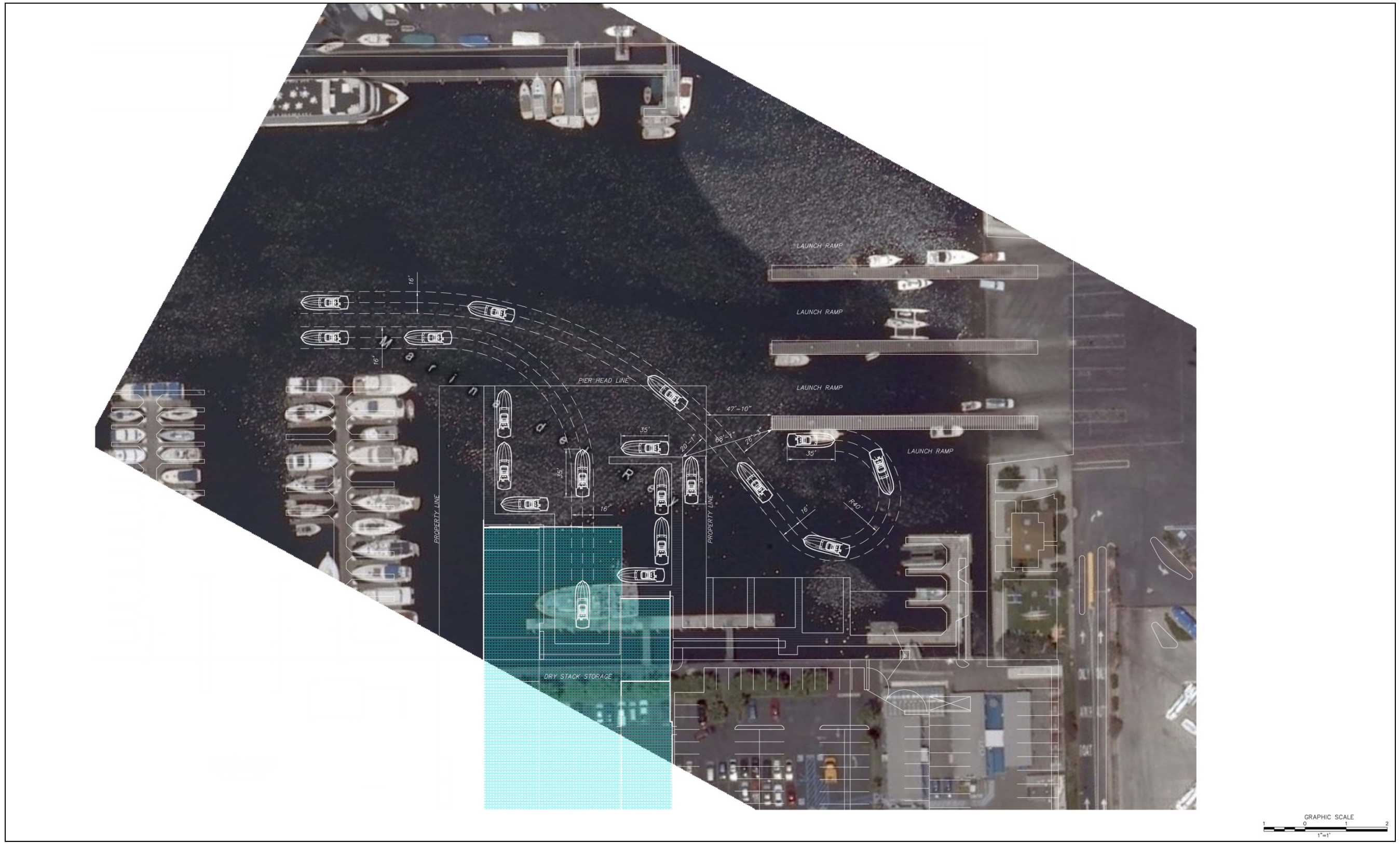
The LCP Land Use Plan and the Implementation Plan include goals for the provision of dry stack storage. The nearly built-out status of the marina has limited the opportunity for a facility of the size proposed in any other location where a minimum environmental impact will occur. To maintain the original vision of the marina as a

recreational small craft harbor, and given the increase in demand for recreational boating throughout the state, a state-of-the-art dry stack boat storage structure fulfills the goals and policies documented over a decade ago.

As noted in the Biological Resources Section of this DEIR, a report entitled "Effect of a Proposed Structure at Marina del Rey on Surface Winds Used by Local Birds" by Rowan Williams Davies and Irwin Incorporated included an analysis of the effects of the proposed structure on sailing conditions. The report concluded that the proposed project is expected to have minimal effects on sailing conditions. The development will alter the wind speed and direction in the area immediately north of the structure when winds are southwesterly. Easterly winds will affect an area on Basin H west of the structure. However, southwesterly and easterly winds are not frequent and the project is expected to have minimal effect on wind conditions in the Main Channel and in the adjacent Basins.

Exhibit 5.10-1 – Launch Ramp Maneuverability Study illustrates the boat circulation pattern, which has been designed to avoid conflict with the boaters using the public launch ramp northeast of the dry stack structure docks. It shows that a 35-foot craft can safely maneuver away from the southernmost launch ramp and enter the channel without interference from/to the dry stack boat storage structure. The dry stack boat storage structure and the public launch ramp will combine to provide the public with additional opportunities for recreational boating use and enjoyment.

A report entitled "Effect of a Proposed Structure at Marina del Rey on Surface Winds Used by Local Birds" by Rowan Williams Davies and Irwin discussed the impact of the proposed project on sailing conditions and surface winds utilized by birds. In the immediate vicinity of the proposed development, changes in wind speed and direction patterns are expected but will have no perceived effect due to the localized nature of the changes in wind. As detailed in the letter, the proposed project is expected to have minimal effects on sailing conditions. With southwesterly winds, the proposed development will alter the wind speed and direction in the area immediately north of the development. Winds from the east will be effected onto an area on Basin H west of the proposed structure. The boats immediately west of the proposed structure will be wind sheltered, and a slight increase in wind activity will occur in a limited open area of the basin. The southwesterly and easterly winds are not frequent. Therefore, the project is predicted to have minimal effects on sailing conditions. Localized variations in wind speed and direction are likely to occur at the east end of Basin H. The proposed project is expected to have minimal effect on wind conditions in the Main Channel and in the adjacent Basins.



Source: Bluewater Design Group

Exhibit 5.10-1 – Launch Ramp Maneuverability Study

2. Waterfront Promenade

As noted in Section 5.10.1.2 above, public safety is an overriding consideration in the provision of public access to the waterfront. The dry stack boat storage structure will use a crane to transport the boats from storage racks to the water across the bulkhead. This makes a waterfront promenade infeasible from a safety standpoint. However, the project includes construction of a promenade along the project frontage on Fiji Way and from Fiji Way to the waterfront, where a public park will be available for picnics and viewing the marina. The view park, which is approximately 1,560 square feet in size, will contain hardscape, landscaping, and benches. Signage will direct the public to the walkway and the view park, which represents an improvement over the existing temporary public parking lot and sidewalk where no recreational opportunities exist other than viewing the Basin.

3. Bicycle Trail

As noted, the South Bay Bike Trail will remain as currently located along the southern boundary of the project site along Fiji Way.

4. Conclusion

The proposed project will not eliminate an existing recreational opportunity, as the site is currently operating as a temporary public parking lot, with adjacent office facilities on Parcel GG. No impacts will occur to existing recreational facilities within the marina due to the implementation of the proposed project. As noted in Section 5.11 – Transportation and Traffic, the temporary loss of parking and the provision of replacement parking will not impact existing recreation facilities. Alternative parking areas at the public launch ramp and Fisherman's Village will be available for bicyclists to park automobiles. The boat traffic circulation from the public boat launch will not be impacted by the new dock structure. Recreational opportunities for boating will be enhanced with the addition of a dry stack boat storage structure. The proposed project fills an existing need, allowing residents and visitors an alternative to wet slip rental.

5.10.4 Mitigation Measures

The proposed project would not result in significant impacts to recreation or existing recreational facilities. No mitigation measures are required.

5.10.5 Level of Significance after Mitigation

No unavoidable significant recreation impacts are associated with the project.

5.10.6 Cumulative Impacts

Project and cumulative impacts related to recreation are not considered significant. Construction of the proposed dry stack boat storage structure will have a positive impact by providing additional boat storage facilities to replace the loss of boat slips due to reconstruction of existing marinas to standards of the Department of Boating and Waterways and the Americans with Disabilities Act.

5.11 Transportation and Traffic

This section analyzes information contained in the Traffic Impact Analysis for Dry Stack Boat Storage in Marina Del Rey (Traffic Analysis) dated January 26, 2011 prepared by Linscott, Law & Greenspan Engineers. The Traffic Analysis is included in its entirety as Appendix J.

The Traffic Impact Analysis contains documentation of existing traffic conditions, traffic generated by the proposed project, including a construction traffic impact assessment, projected impacts with implementation of the proposed project, and future traffic projections including cumulative traffic conditions.

5.11.1 Existing Setting

The proposed project contains 2 parcels, Parcel 52 and Parcel GG, which are developed with the Marina del Rey Sheriff's Boatwright/Lifeguard facility, 5 office trailers used by the Los Angeles County Department of Beaches & Harbors, and a temporary public parking lot containing 245 parking spaces.

The proposed project consists of demolition of the existing facilities on the site, and construction of a dry stack boat storage structure and a mast-up-capable sailboat storage lot for a total of 375 boat storage spaces (30 mast-up-capable and 345 indoor). A 2-story, 3,080-square-foot building will provide office space and amenities for boaters. An additional 2,850-square-foot building will incorporate the existing Sheriff's Boatwright/Lifeguard facility and includes the existing boat dock. A parking lot with 134 surface parking spaces will be provided on-site. Project completion is expected in year 2013.

Site access currently exists via a driveway along Fiji Way. The proposed project includes the addition of a second driveway. The easterly driveway will provide primary access to the site, and the westerly driveway will provide an incidental second access.

1. Traffic Analysis Study Area

Marina del Rey is located within the jurisdiction of the County of Los Angeles. In conjunction with discussions with County staff, six key study intersections were selected for evaluation based on local and regional access to the site. The study area includes three intersections within the County of Los Angeles jurisdiction and three intersections within County of Los Angeles and City of Los Angeles jurisdictions as follows:

1. Admiralty Way at Fiji Way (County)
2. Admiralty Way at Mindanao Way (County)
3. Admiralty Way at Bali Way (County)
4. Lincoln Boulevard at Fiji Way (City/County)
5. Lincoln Boulevard at Mindanao Way (City/County)
6. Lincoln Boulevard at Bali Way (City/County)

The scope of the study was developed in conjunction with Los Angeles County Department of Public Works (LACDPW) Traffic and Lighting Division (LA Traffic & Lighting) staff. The study follows LACDPW and City of Los Angeles Department of Transportation (LADOT) traffic study guidelines and is consistent with the Transportation Improvement Program of the Marina del Rey Land Use Plan (1996) as well as the traffic impact assessment guidelines in the 2004 Congestion Management Program for Los Angeles County.

Existing peak hour data for each of the six locations was collected on a typical weekday in order to prepare intersection level of service (LOS) calculations. The AM and PM peak hour traffic volumes were obtained from manual morning and evening peak hour turning movement counts conducted by Transportation Studies Inc. in November 2007.

2. Methodology

Traffic impacts were estimated utilizing trip generation, trip distribution, and traffic assignment methods. Trip generation estimates the total arriving and departing traffic on a peak hour and daily basis. Trip distribution identifies the origins and destinations of inbound and outbound traffic. Traffic assignment involves the allocation of project traffic to study area streets and intersections. The impact of the proposed project is then isolated by comparing operational (LOS) conditions at the key intersections using expected future traffic volumes with and without forecast project traffic. The project completion year of 2013 was used for future operational calculations and included 39 related projects within a 2 mile radius of the site in analyzing cumulative traffic impacts.

Despite the area's coastal recreational orientation, key arterial roadways serving the site are subject to commuter period traffic flow patterns. Therefore, the traffic analysis focused on the weekday AM and PM commuter peak hours as a basis to assess impacts. Prior studies have revealed that while traffic volumes can be substantial on weekends in coastal areas, peak conditions usually occur during the commuter-influenced hours with very few exceptions. Therefore, a weekend evaluation was not required through the scoping process with LACDPW Traffic and Lighting Division staff. The Marina del Rey Land Use Plan (§C.11 – Circulation, p. 11-6) states:

> "The heaviest congestion is during the 4th of July fireworks show and during the Christmas boat parade. Outside of these two events, the weekday PM peak hour has the highest consistent congestion. Summer weekend traffic volumes

approach the weekday PM peak hour, but are typically slightly lower in volume."

In conformance with County of Los Angeles requirements, peak hour operating conditions for the six key intersections within County jurisdiction were evaluated using the Intersection Capacity Utilization (ICU) methodology for signalized intersections. The ICU technique estimates the volume to capacity (V/C) based on individual V/C ratios for key conflicting traffic movements. ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing. The County's Congestion Management Program (CMP) requires ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through and right-turn lanes and dual left turn capacity of 2,880 vph.

The following scenarios are those for which weekday AM peak hour and PM peak hour volume/capacity calculations have been performed at the six key intersections in the County of Los Angeles:

1. Existing Traffic Conditions
2. Existing Traffic Conditions Plus Ambient Growth Traffic to the Year 2013
3. Scenario 2 Plus Project Traffic
4. Scenario 3 with Mitigation (if necessary)
5. Scenario 3 Plus Related Projects Traffic
6. Scenario 5 with Mitigation (if necessary)

The ICU value translates to a Level of Service (LOS) estimate. The six qualitative categories of LOS are shown on Table 5.11-1 below, with the corresponding ICU value range.

Table 5.11-1 Level of Service Criteria for Signalized Intersections

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.600	Excellent. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 – 0.700	Very Good. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 – 0.800	Good. Occasionally drives may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	Fair. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	Poor. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	Failure. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

Source: Transportation Research Board Circular 212 – Interim Materials on Highway Capacity

For the three key study intersections within the City of Los Angeles, evaluations of AM and PM peak hour operating conditions were also conducted using the Critical

Movement Analysis (CMA) methodology for signalized intersections per Los Angeles Department of Transportation (LADOT) traffic study guidelines.

The following scenarios are those for which weekday AM peak hour and PM peak hour volume/capacity calculations have been performed at the three key intersections that are also located in the City of Los Angeles:

1. Existing Traffic Conditions
2. Year 2013 Future Traffic Conditions
3. Year 2013 Future Traffic Conditions Plus Project Traffic
4. Scenario 3 with Mitigation (if necessary)

Both the County of Los Angeles and the City of Los Angeles have established LOS D as the minimum acceptable condition that should be maintained during peak AM and PM commute hours.

Per the direction of LA Traffic & Lighting staff, the level of service calculations for the six key study intersections include a 10% reduction to account for the LADOT Automated Traffic Surveillance and Control (ATSAC) system and the LADOT Adaptive Traffic Control System (ATCS). ATSAC accounts for a 7% reduction, and ATCS accounts for a 3% reduction for a total of 10%.

3. Existing Street System

Marina Freeway (SR-90) is an east-west oriented freeway that provides regional access to the project site and extends from Culver City to Marina del Rey. The freeway provides three travel lanes in each direction to east of Culver Boulevard and two travel lanes from that point to Lincoln Boulevard (SR-1). Lincoln Boulevard is a signalized intersection. The speed limit on the Marina Freeway is 45 miles per hour in the vicinity of the project site.

Lincoln Boulevard is a north-south, six-lane divided roadway in the project vicinity. Traffic signals control the study intersections of Lincoln Boulevard at Fiji Way, Mindanao Way, and Bali Way. The posted speed limit is 40 miles per hour north of Fiji Way and 45 miles per hour south of Fiji Way. Lincoln Boulevard is classified as a Major Highway in the County of Los Angeles Highway Plan.

Admiralty Way is a north-south, four-lane divided roadway in the vicinity of the project. Traffic signals control the study intersections of Admiralty Way at Fiji Way, Mindanao Way, and Bali Way. The posted speed limit is 40 miles per hour. Admiralty Way is classified as a Secondary Highway in the County of Los Angeles Highway Plan.

Fiji Way is an east-west, two-lane undivided roadway east of Lincoln Boulevard and a four-lane divided roadway west of Lincoln Boulevard. Fiji Way borders the project site to the south and will provide access to the site via two proposed driveways. The posted speed limit on Fiji Way is 35 miles per hour. Traffic signals control the study intersections of Fiji Way at Lincoln Boulevard and Admiralty Way.

Mindanao Way is an east-west, four-lane divided roadway. The posted speed limit on Mindanao Way is 30 miles per hour. Traffic signals control the study intersections of Mindanao Way at Lincoln Boulevard and Admiralty Way. Mindanao Way is classified as a Secondary Highway in the County of Los Angeles Highway Plan.

Exhibit 5.11-1 – Existing Roadway Conditions and Intersection Controls shows the number of travel lanes for key arterials and intersection configurations and controls for the key area study intersections.

4. Existing Public Transit Service

The project site is currently provided with public transportation services by the Los Angeles County Metropolitan Transit Authority (MTA), LADOT Commuter Express, the City of Santa Monica, and the City of Culver City. Table 5.11-2 summarizes the existing routes, destinations, and number of buses during peak hours.

Table 5.11-2 Existing Transit Routes

Route	Destinations	Roadway Near Site	Number of Buses During Peak Hour		
			Direction	AM	PM
MTA 108[1]	Marina del Rey to Pico Rivera (via Culver City, Los Angeles, Huntington Park)	Lincoln Blvd., Mindanao Way	EB WB	2 3	2 2
MTA 220[1]	LAX to West Hollywood (via Playa del Rey, Marina del Rey, Palms)	Lincoln Blvd., Mindanao Way	NB SB	1 1	1 1
Culver City Route 1[2]	Venice to West Los Angeles (via Mar Vista, Palms, Culver City)	Lincoln Blvd., Washington Blvd.	EB WB	5 5	5 5
Culver City Route 7[2]	Venice & Culver City to Marina del Rey (via Culver City and Marina del Rey, primarily along Culver Blvd.)	Mindanao Way, Admiralty Way, Fiji Way	EB WB	2 2	1 1
LA DOT Commuter Express 437[3]	Venice to Downtown Los Angeles (via Marina del Rey, Mar Vista, Culver City)	Via Marina, Admiralty Way, Mindanao Way	EB WB	2 0	0 1
Santa Monica Route 3[4]	UCLA Transit Center to Metro Green Line (via Santa Monica, Marina del Rey, Westchester)	Lincoln Blvd., Washington Blvd.	NB SB	4 4	4 5

1 Los Angeles County Metropolitan Transportation Authority (LACMTA) Website.
2 Culver CityBus Website.
3 LADOT Transit – Commuter Express Website.
4 City of Santa Monica, Big Blue Bus Website.

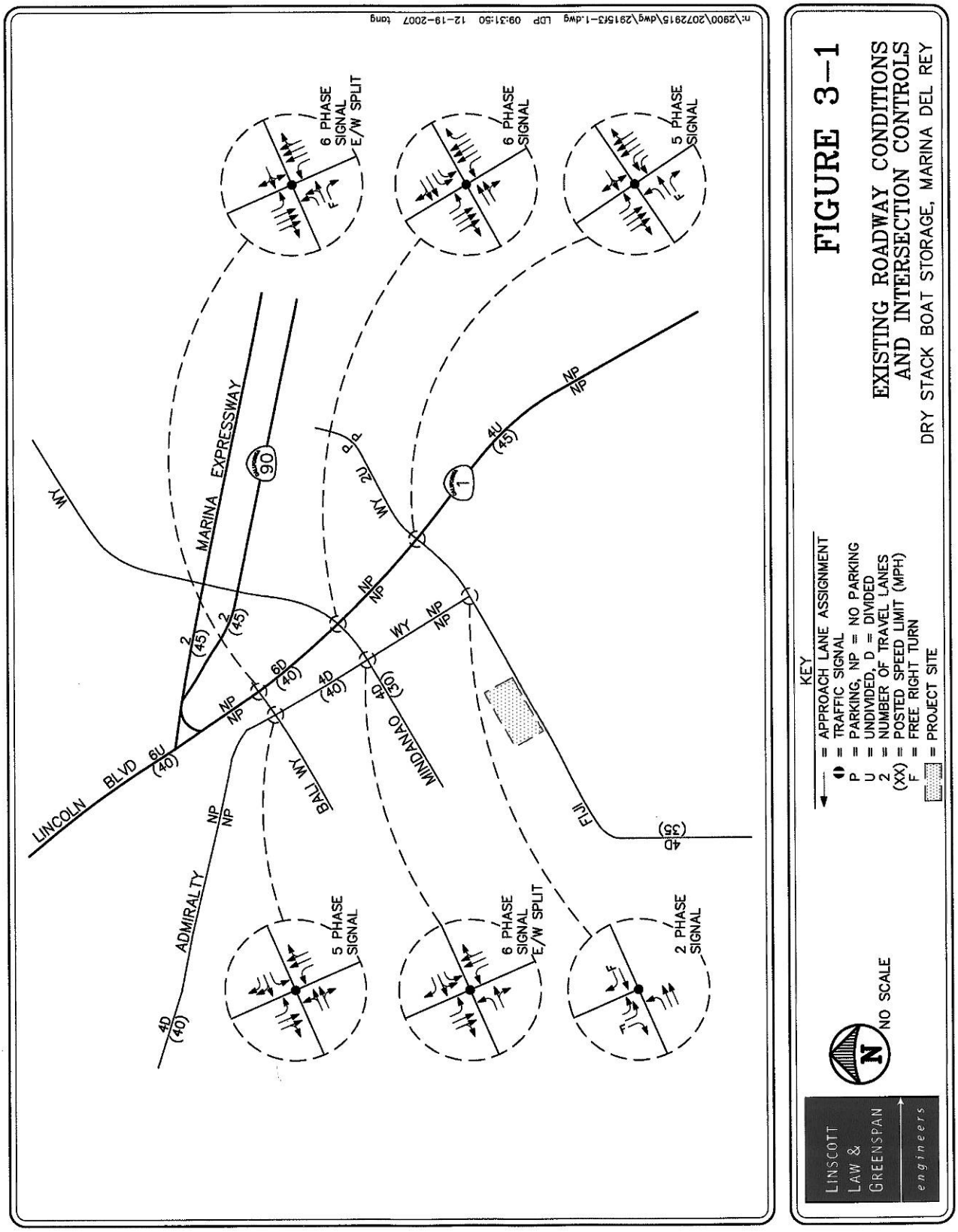


Exhibit 5.11-1 – Existing Roadway Conditions and Intersection Controls

5. Existing Peak Hour and Level of Service

Table 5.11-3, Existing Peak Hour Levels of Service, summarizes the levels of service at the six key study intersections during the AM and PM peak hours. The table shows that all six intersections currently operate at an acceptable LOS (i.e., LOS C or better) when compared to the LOS criteria identified on Table 5.11-1 (page 5-251). Since the three study intersections along Lincoln Boulevard are under the jurisdiction of both the City and the County of Los Angeles, the table reports both the ICU/LOS and CMA/LOS values for each jurisdiction's methodology.

Table 5.11-3 Existing Peak Hour Levels of Service

Key Intersections	Time Period	Control Type	ICU/CMA	LOS
1. Admiralty Way at Fiji Way	AM PM	2Ø traffic signal	0.262 0.366	A A
2. Admiralty Way at Mindanao Way	AM PM	6Ø traffic signal	0.536 0.591	A A
3. Admiralty Way at Bali Way	AM PM	5Ø traffic signal	0.444 0.594	A A
4. Lincoln Boulevard at Fiji Way*	AM PM	5Ø traffic signal	0.587/0.558 0.774/0.7672	A/A C/C
5. Lincoln Boulevard at Mindanao Way*	AM PM	6Ø traffic signal	0.631/0.632 0.762/0.785	B/B C/C
6. Lincoln Boulevard at Bali Way*	AM PM	6Ø traffic signal	0.527/0.461 0.672/0.612	A/A B/B

*Both City and County of Los Angeles methodologies used

6. Existing Traffic Volumes

Exhibit 5.11-2 and Exhibit 5.11-3 illustrate the existing AM and PM peak hour traffic volumes, respectively, at the key study intersections. Some portion of the potential project-related traffic will pass through each of these intersections. The Traffic Impact Analysis (Appendix J) contains the detailed peak hour count sheets for the key intersections analyzed.

7. Parking

Parcel 52 is classified as a temporary public parking lot in the LCP and has been used historically for no-cost public parking. The existing site contains a 245-space temporary public parking lot that serves as commercial use parking for Fisherman's Village, Marina Cruise Line and other boat charters, the Administrative Annex for the Department of Beaches & Harbors, and the County Sheriff's Boatwright/Lifeguard facilities. The lot is also used for temporary parking of high profile vehicles, trailers, and motor homes.

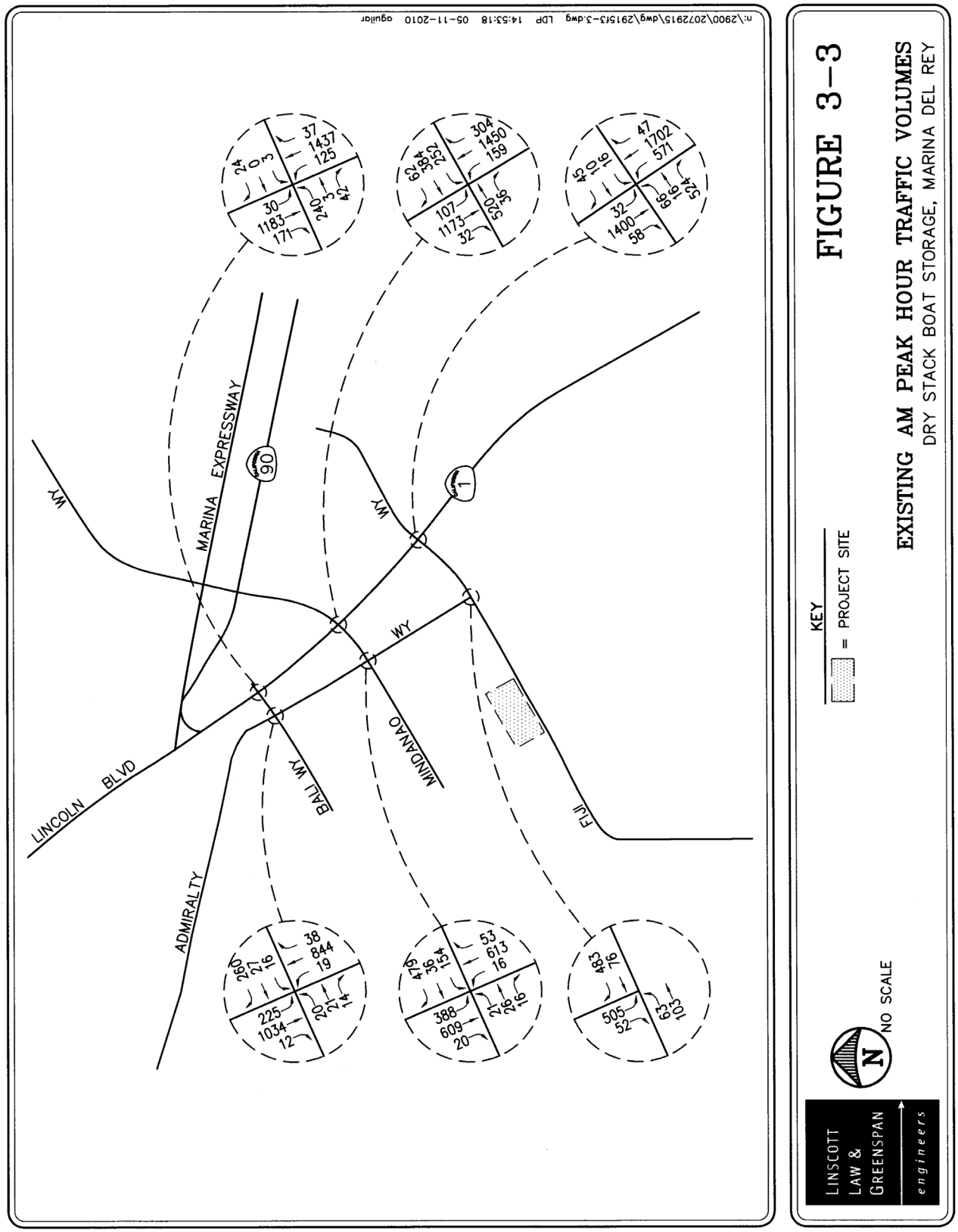


Exhibit 5.11-2 – Existing AM Peak Hour Traffic Volumes

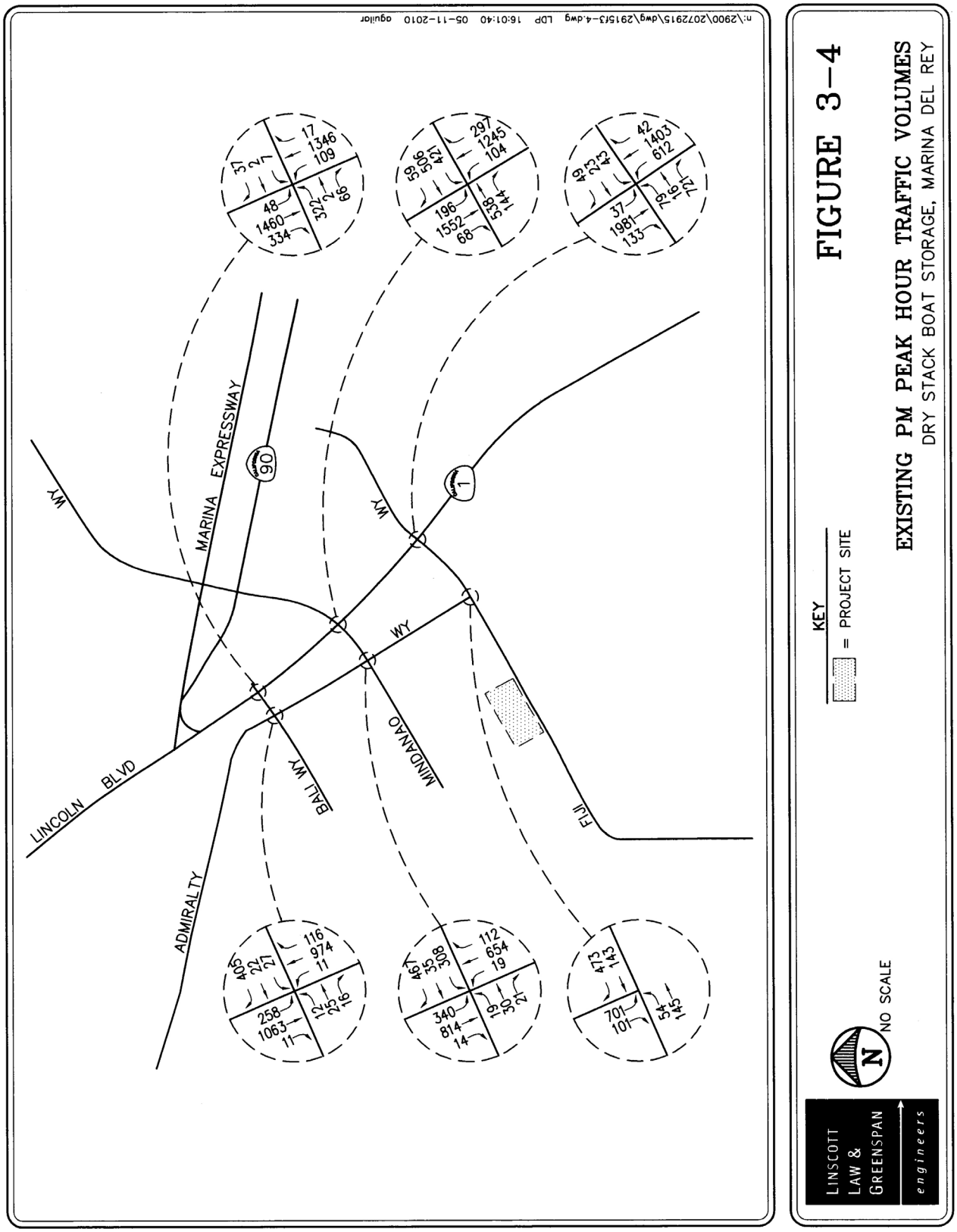


Exhibit 5.11-3 – Existing PM Peak Hour Traffic Volumes

5.11.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles does not have adopted thresholds of significance for transportation and traffic. Thus, for purposes of this analysis, the applicable thresholds listed in CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact with respect to transportation and traffic if it would:

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

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Result in inadequate emergency access?

f) Result in inadequate parking capacity?

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

This section will analyze impacts from the perspective of the thresholds listed above.

As previously indicated, both the County of Los Angeles and the City of Los Angeles have established LOS D (ICU = 0.801-0.900) as the minimum acceptable condition that should be maintained during the morning and evening peak commute hours.

Table 5.11-4 Intersection Impact Threshold Criteria – County of Los Angeles/City of Los Angeles

Level of Service	Final ICU	Project-Related Increase in ICU
C	0.701 - 0.800	0.04 or more
D	0.801 - 0.900	0.02 or more
E, F	0.901 or more	0.01 or more

The County of Los Angeles and the City of Los Angeles have established a sliding scale to determine a significant transportation impact. As shown in Table 5.11-4, the project-related increase in ICU value that defines a significant impact varies with LOS. The Traffic Analysis notes that the County has adopted the following interpretation for pre-project conditions that are less than 0.71. In that situation, the guidelines are interpreted to mean that an increase that results in a with-project condition of 0.75 or more is considered significant.

Congestion Management Program

The statewide Congestion Management Program (CMP) has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LACMTA). The current CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. The CMP criteria states that the geographic area examined in the Traffic Impact Analysis must include the following, at a minimum:

- All CMP arterial monitoring intersections, including freeway on and off-ramp intersections, where the project will add 50 or more trips during either the AM or PM weekday peak hours.
- Mainline freeway-monitoring stations where the project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours.

CMP Intersections within the project area:

CMP Station	Intersection/Jurisdiction
No. 49	Lincoln Boulevard at Marina Freeway
No. 50	Lincoln Boulevard at Venice Boulevard

CMP Freeway Locations within the project area:

CMP Station	Intersection/Jurisdiction
No. 1070	I-405, north of Venice Boulevard

5.11.3 Project Impacts Prior to Mitigation

1. Project Traffic Generation

Vehicle trip ends, used to calculate traffic generation, are defined as one-way vehicular movements, either entering or exiting the generating land use. The forecasting procedures typically use generation equations or rates found in the Seventh Edition of Trip Generation (2003) published by the Institute of Transportation Engineers (ITE) and San Diego Traffic Generators (April 2002) published by the San Diego Association of Governments (SANDAG). In addition, the Marina del Rey Land Use Plan contains trip rates for uses within the marina. However, no specific trip rates are provided for a Dry Stack Boat Storage land use in any of the documents noted. Therefore, the trip generation study was conducted at an existing facility located in the City of Newport Beach which has a total of 230 dry stack boat storage spaces with staging/queuing area in the water for 30 boats.

The management of the facility reported the following per day boat usage statistics:

- Summer weekday use (Tuesday-Thursday) approximately 20 boats per day
- Summer weekend use (Friday-Monday) approximately 60 boats per day
- Non-summer weekday use (Tuesday-Thursday) approximately 10 to 15 boats per day

- Non-summer weekend use (Friday-Monday) approximately 30 to 40 boats per day

These figures indicate that on summer weekends the facility handles about 26% of the boats stored. The number drops to 9% on summer weekdays and 6% on non-summer weekdays.

Observations at the existing facility took place on each of three consecutive days. On days 1 and 2, observations took place between the hours of 7:00 and 9:00 a.m. and 4:00 to 6:00 p.m. On day 3, observations were made between 7:00 a.m. and 6:00 p.m. The highest rates were utilized to develop trip generation rates in order to provide the most conservative trip generation forecast. Trip generation study data is contained in Appendix J, Traffic Impact Analysis.

The daily trip generation rate was determined by dividing the total number of vehicle trips by the total number of dry stack boat storage spaces. To account for daily operational fluctuations, the field study data was increased by 10% to arrive at the daily rate. The peak hour trip generation rates were determined by dividing the total number of vehicle trips during the respective peak hour by the total number of dry stack boat storage spaces. The peak hour inbound and outbound trip generation rates were based on the relationship of the inbound and outbound vehicle trips during the peak hour to the total vehicle trips during the peak hour.

A total of 70 vehicles (37 inbound and 33 outbound) were observed from 7:00 a.m. to 6:00 p.m. The AM peak hour occurred between 8:00 and 9:00 a.m. and the PM peak hour occurred between 5:00 and 6:00 p.m. Based on the results of the trip generation study and the methodology described above, a daily trip generation rate of 0.334 trips per dry stack storage space, an AM peak hour trip generation rate of 0.048 trips per dry stack storage space and a PM peak hour trip generation rate of 0.048 trips per dry stack storage space were calculated.

Table 5.11-5 summarizes the trip generation rates and the proposed project's forecast peak hour and daily traffic volumes. The proposed project is forecast to generate approximately 125 daily trips, with 18 trips (12 inbound, 6 outbound) produced in the AM peak hour and 18 trips (2 inbound, 16 outbound) produced in the PM peak hour on a typical weekday.

Table 5.11-5 Project Traffic Generation Forecast

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Factors:							
Marina (TE/Wet Slip)[1]	--	0.044	0.083	0.126	0.050	0.087	0.137
Dry Stack Boat Storage (TE/Dry Stack Space)[2]	0.334	0.031	0.017	0.048	0.004	0.044	0.048
Proposed Project Generation Forecast							
Based on Marina rates (375 spaces)	--	16	31	47	19	32	51
Based on dry stack rates (375 spaces)	125	12	6	18	2	16	18
Traffic Generation Forecast	125	12	6	18	2	16	18

1 Appendix G of the Specific Plan for the Marina (Table 2-11 from the Marina Del Rey Traffic Study, prepared by DKS Associates, dated January 17, 1991)
2 Rates developed from the trip generation study conducted at the Newport Beach Dry Stack Storage facility on September 26, 27, and 28, 2007.

Also included in Table 5.11-5 are trip generation forecasts for a Marina Land Use (trip end per wet slip) contained within the Marina del Rey Land Use Plan. As a comparison, wet slips provide both a storage and recreational component, and dry stack is typically a boat storage use. The wet slip generation factor results in a greater trip total; however, the trip generation study is consistent with a like facility and, therefore, most appropriate for the unique nature of the proposed land use.

The Marina del Rey Land Use Plan (LUP) outlines the amount of allowable new development within Marina del Rey based on the amount of additional traffic generated and identifies improvement measures to be installed incrementally with the new development. Based on the LUP, the development potential of the Mindanao development zone, in which the project is located, includes 14,500 square feet of retail space and 26,000 square feet of office space. The LUP currently designates the proposed project site as "Public Facility," which does not allow the proposed use. An amendment to the LUP requesting that the site be redesignated as "Boat Storage" is necessary to allow the proposed use. A boat storage facility is well aligned with the intent of the LCP goals and policies by providing enhanced recreational boating opportunities. The Traffic Analysis noted that the project trip generation forecast is significantly less than the development potential for the zone if developed as visitor-serving commercial and office uses.

2. Project Traffic Distribution and Assignment

The following considerations were given to the distribution and assignment of traffic to the adjacent street system for traffic entering and exiting the site:

- the site's proximity to major traffic carriers
- expected localized traffic flow patterns based on adjacent street channelization and presence of traffic signals
- input from County of Los Angeles staff
- ingress/egress availability at the project site

Exhibit 5.11-4 depicts the projected distribution of traffic related to the proposed project. Exhibit 5.11-5 and Exhibit 5.11-6 show the AM and PM Peak Hour Project Traffic volume distribution.

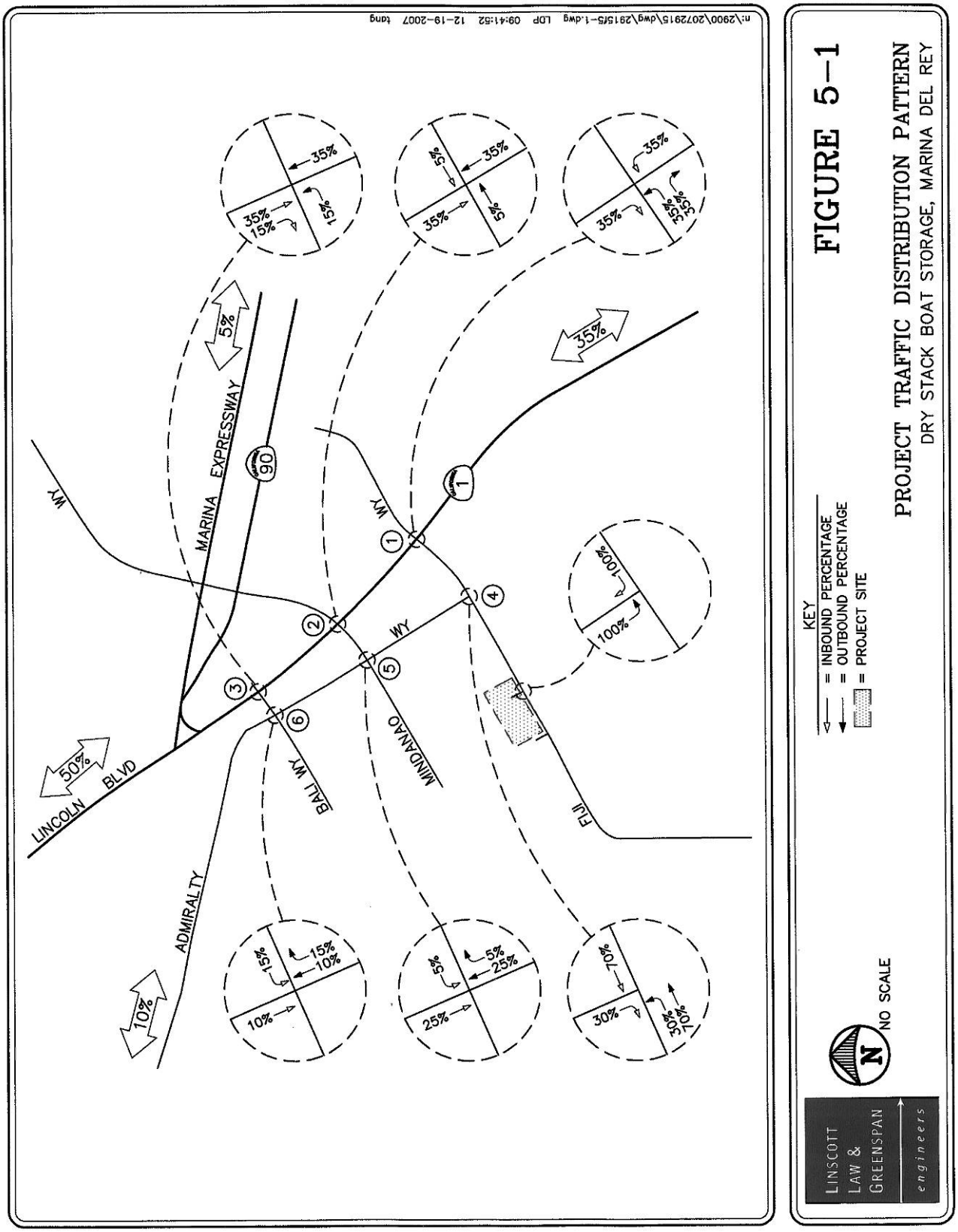


Exhibit 5.11-4 – Project Traffic Distribution Pattern

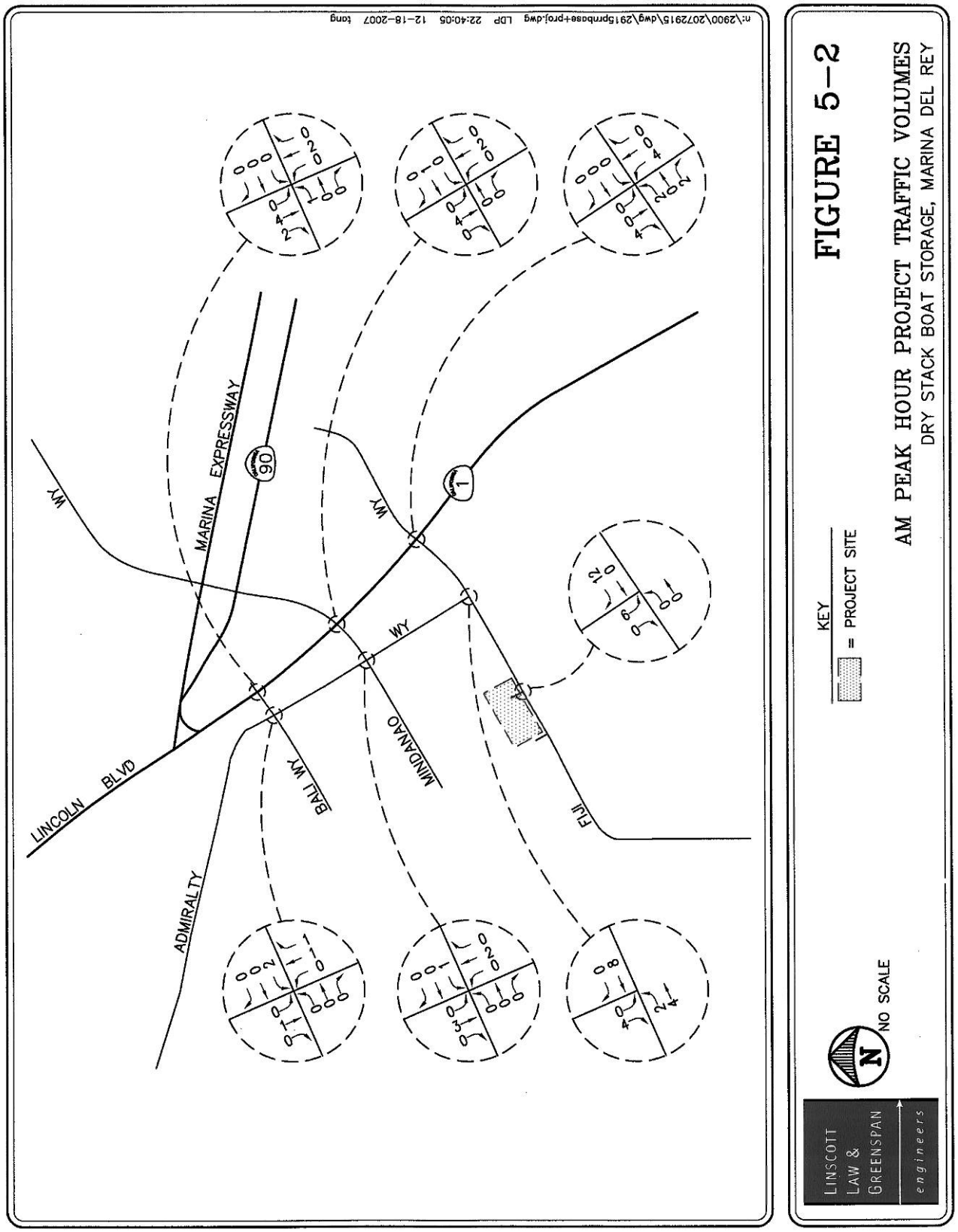


Exhibit 5.11-5 – AM Peak Hour Project Traffic Volumes

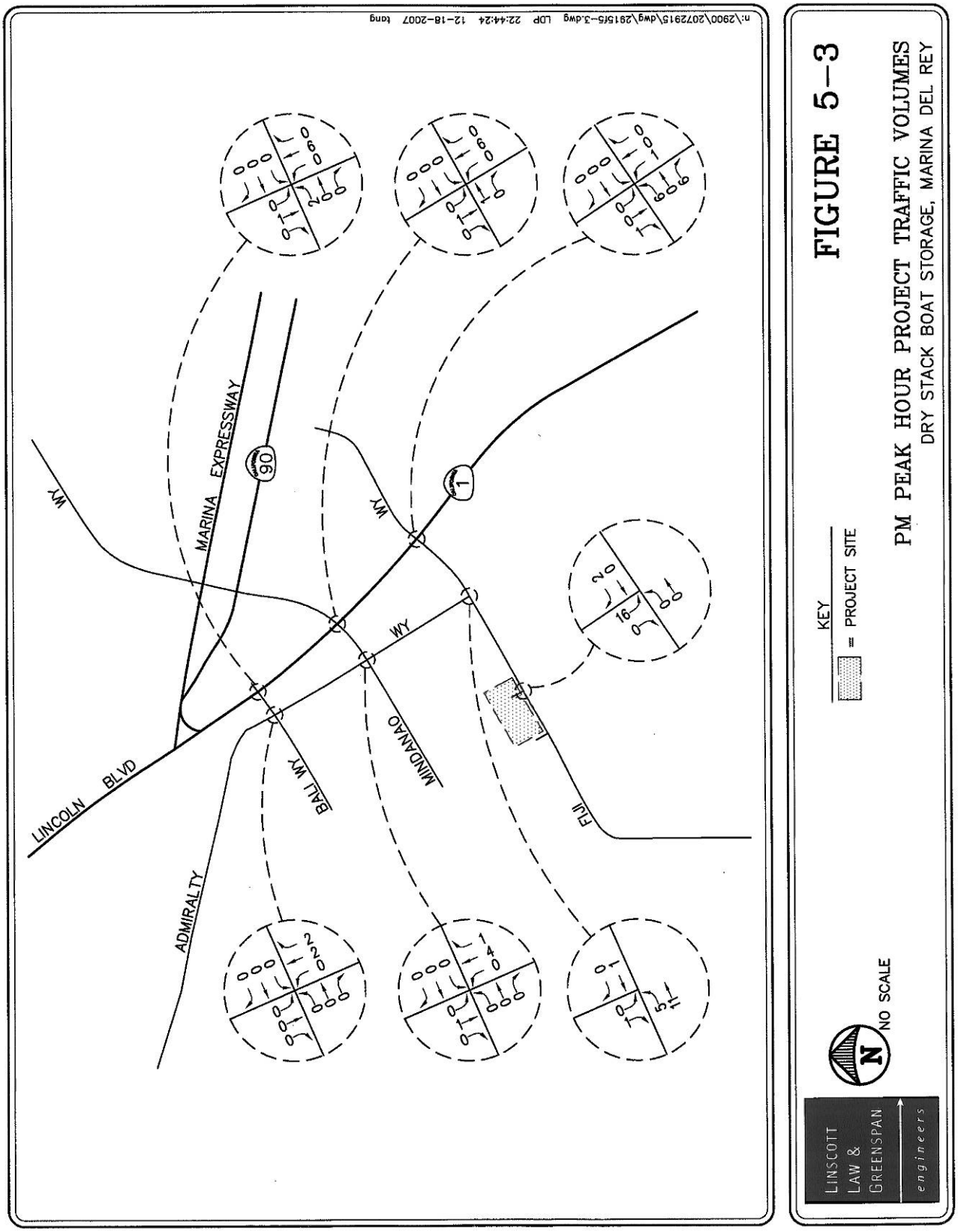


Exhibit 5.11-6 – PM Peak Hour Project Traffic Volumes

3. Ambient Traffic Growth

The project completion horizon year has been identified as year 2013. Taking into account the unknown and future related projects in the study area, as well as the normal growth in traffic volumes due to development outside the project area, growth in existing volumes has been calculated at 0.60% per year. Applied to existing year 2010 traffic volumes, this results in a 1.80% increase to horizon year 2013. Exhibit 5.11-7 and Exhibit 5.11-8 depict the Existing Plus Ambient Growth AM and PM Peak Hour Traffic Volumes, respectively.

4. Year 2013 Traffic Volumes

Results of taking into account ambient growth percentages, related projects, and existing plus project traffic volumes for the horizon year of 2013 are depicted on Exhibit 5.11-9 and Exhibit 5.11-10, Year 2013 Cumulative AM and PM Peak Hour Traffic Volumes, respectively.

5. County of Los Angeles Intersection Impacts

The six County of Los Angeles key study intersections all currently operate at LOS C or better during AM and PM peak hours. Inclusion of the projected ambient traffic growth will not adversely impact any of the six key study intersections. Therefore, traffic associated with the proposed project and the proposed project with ambient growth will not have a significant impact at any of the County of Los Angeles intersections when compared to the LOS standards and significant impact criteria defined herein. Table 5.11-6 depicts the ICU and LOS conditions for Year 2013.

Table 5.11-6 Year 2013 Existing Plus Ambient Growth Plus Project Peak Hour Intersection Capacity Analysis – County of Los Angeles Methodology

Key Intersections	Time Period	Existing Traffic Conditions (1)		Year 2013 Plus Ambient Growth Traffic Conditions (2)		Year 2013 Plus Ambient Growth Plus Project Traffic Conditions (3)		Project Significant Impact (4)		With Improvements (5)	
		ICU	LOS	ICU	LOS	ICU	LOS	ICU Increase	Yes/No	ICU	LOS
1. Admiralty Way at Fiji Way	AM	0.262	A	0.266	A	0.272	A	0.006	no	--	--
	PM	0.366	A	0.373	A	0.378	A	0.005	no	--	--
2. Admiralty Way at Mindanao Way	AM	0.536	A	0.546	A	0.547	A	0.001	no	--	--
	PM	0.591	A	0.602	B	0.603	B	0.001	no	--	--
3. Admiralty Way at Bali Way	AM	0.444	A	0.451	A	0.452	A	0.001	no	--	--
	PM	0.594	A	0.605	B	0.606	B	0.001	no	--	--
4. Lincoln Blvd. at Fiji Way	AM	0.587	A	0.598	A	0.601	B	0.003	no	--	--
	PM	0.774	C	0.787	C	0.793	C	0.006	no	--	--
5. Lincoln Blvd. at Mindanao Way	AM	0.631	B	0.642	B	0.642	B	0.000	no	--	--
	PM	0.762	C	0.776	C	0.777	C	0.001	no	--	--
6. Lincoln Blvd. at Bali Way	AM	0.527	A	0.536	A	0.537	A	0.001	no	--	--
	PM	0.672	B	0.683	B	0.685	B	0.002	no	--	--

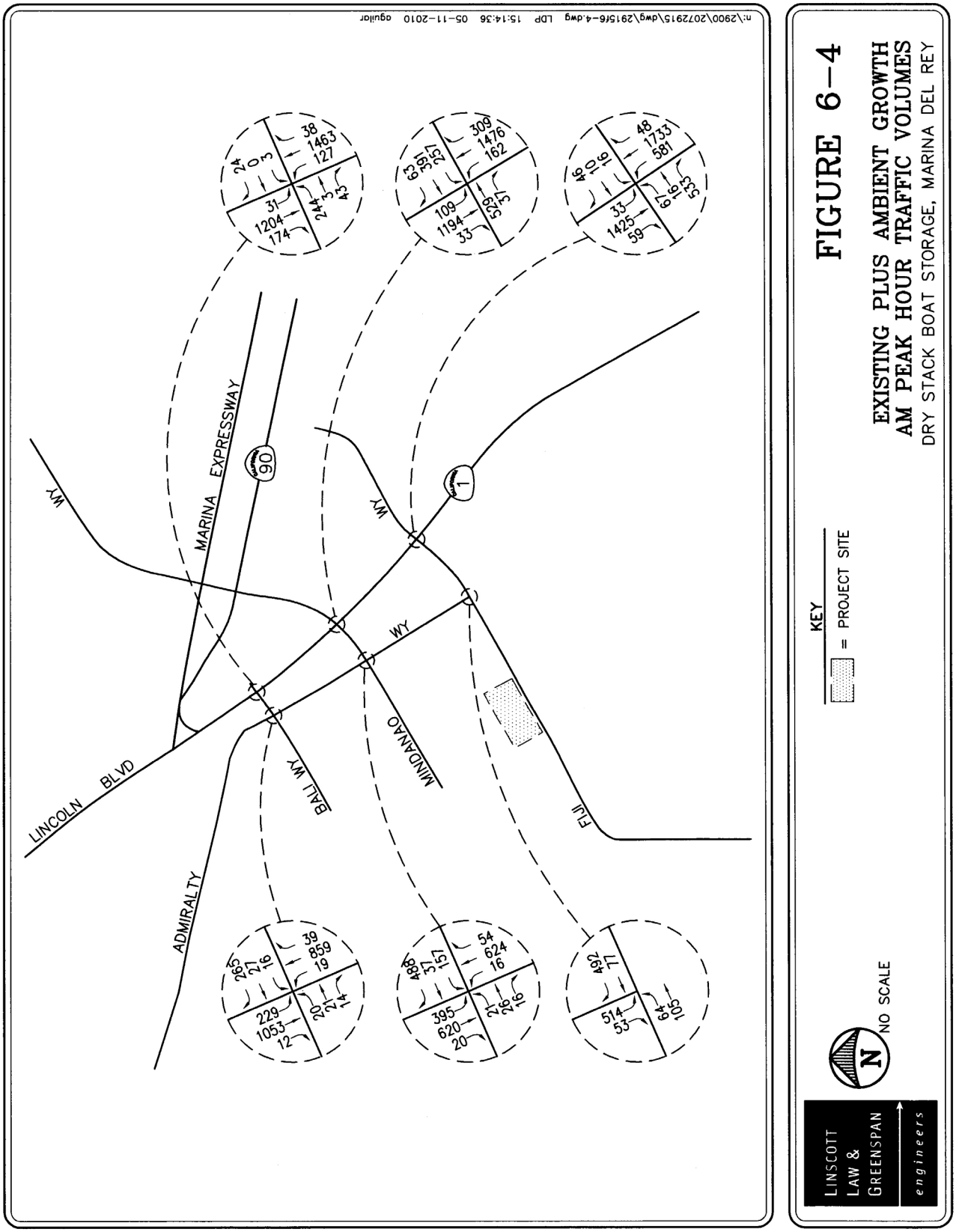


Exhibit 5.11-7 – Existing Plus Ambient Growth AM Peak Hour Traffic Volumes

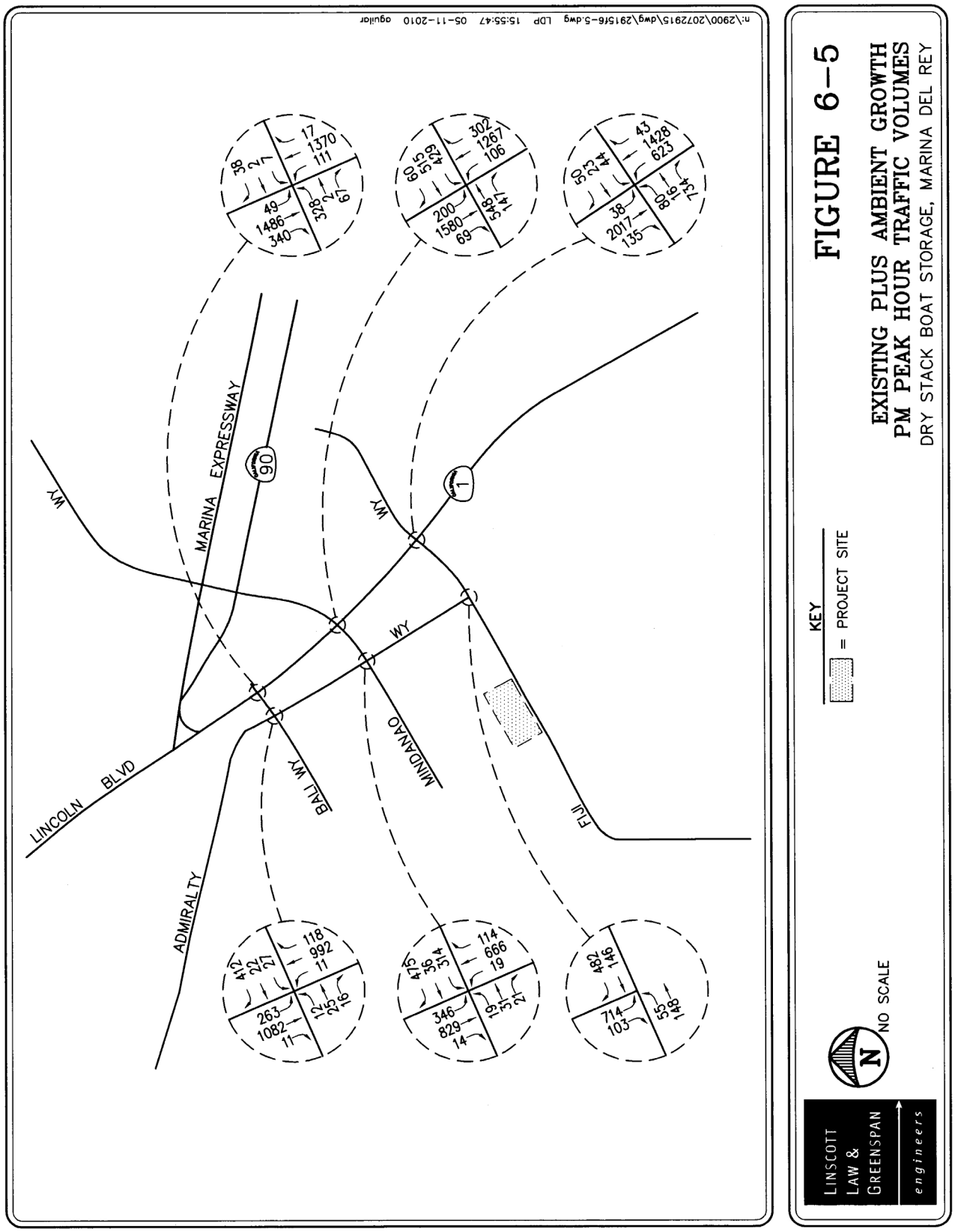


Exhibit 5.11-8 – Existing Plus Ambient Growth PM Peak Hour Traffic Volumes

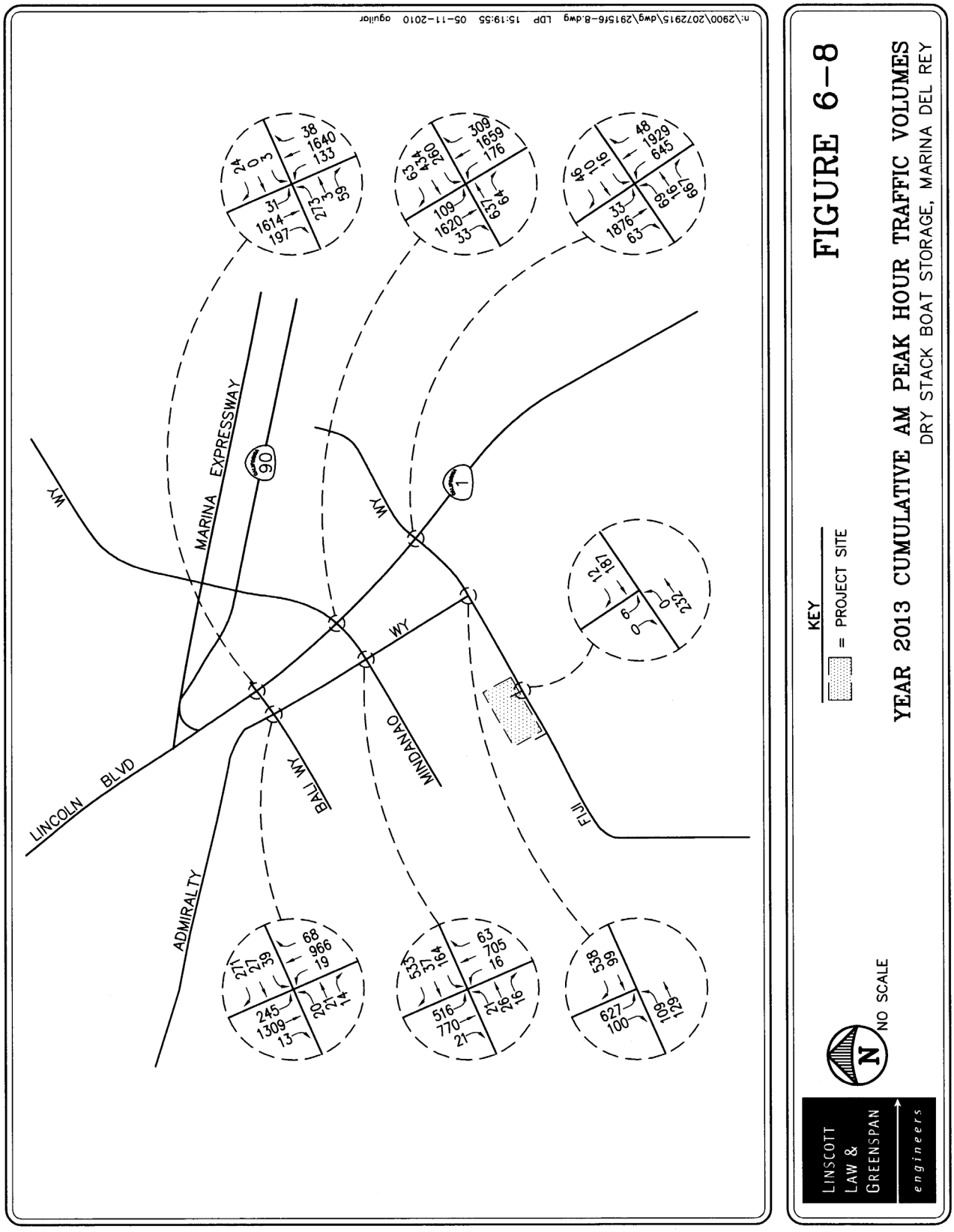


Exhibit 5.11-9 – Year 2011 Cumulative AM Peak Hour Traffic Volumes

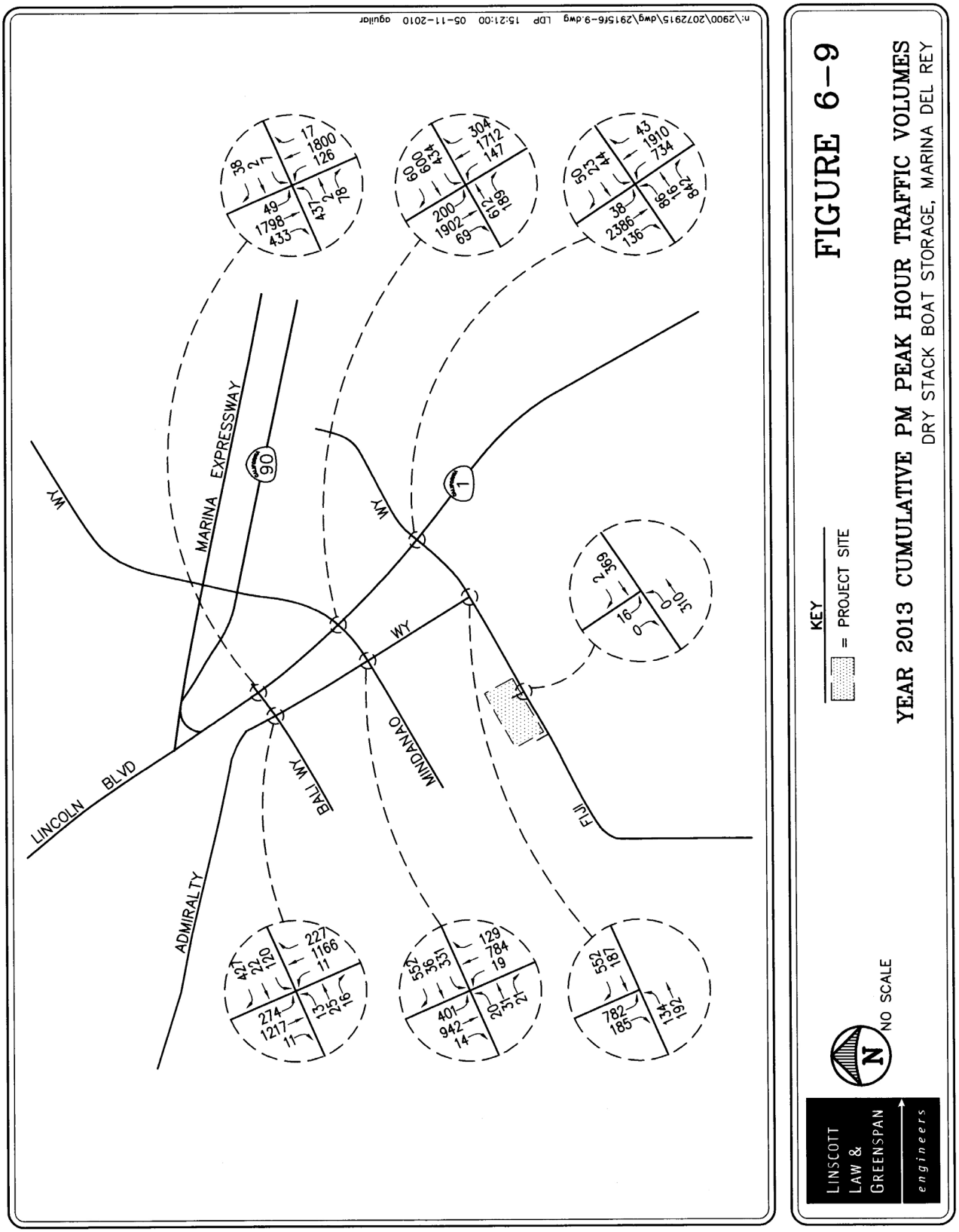


Exhibit 5.11-10 – Year 2011 Cumulative PM Peak Hour Traffic Volumes

Year 2013 cumulative conditions, which include traffic from the 39 related projects within a two-mile radius, are depicted on Table 5.11-7.

Table 5.11-7 Year 2013 Cumulative Peak Hour Intersection Capacity Analysis – County of Los Angeles Methodology

Key Intersections	Time Period	Existing Traffic Conditions (1)		Year 2013 Plus Ambient Growth Traffic Conditions (2)		Year 2013 Plus Ambient Growth Plus Cumulative Plus Project Traffic Conditions (3)		Project Significant Impact (4)		With Improvements (5)	
		ICU	LOS	ICU	LOS	ICU	LOS	ICU Increase	Yes/No	ICU	LOS
1. Admiralty Way at Fiji Way	AM	0.262	A	0.266	A	0.348	A	0.082	no	--	--
	PM	0.366	A	0.373	A	0.473	A	0.100	no	--	--
2. Admiralty Way at Mindanao Way	AM	0.536	A	0.546	A	0.652	B	0.106	no	--	--
	PM	0.591	A	0.602	B	0.684	B	0.082	no	--	--
3. Admiralty Way at Bali Way	AM	0.444	A	0.451	A	0.517	A	0.066	no	--	--
	PM	0.594	A	0.605	B	0.702	C	0.097	**no**	--	--
4. Lincoln Blvd. at Fiji Way	AM	0.587	A	0.598	A	0.716	C	**0.118**	**yes**	NF*	--
	PM	0.774	C	0.787	C	0.907	E	**0.120**	**yes**	NF	--
5. Lincoln Blvd. at Mindanao Way	AM	0.631	B	0.642	B	0.763	C	**0.121**	**yes**	NF*	--
	PM	0.762	C	0.776	C	0.904	E	**0.128**	**yes**	NF	--
6. Lincoln Blvd. at Bali Way	AM	0.527	A	0.536	A	0.648	B	0.112	no	NF*	--
	PM	0.672	B	0.683	B	0.846	D	**0.163**	**yes**	NF	--

*NF = none feasible; intersection improvements at this key intersection are not feasible due to physical and right of way restrictions that prohibit any widening and/or restriping.
Note: **Bold ICU/LOS values** indicate adverse service levels based on County of Los Angeles LOS standards

Columns (3) and (4) of the table show that three of the six key study intersections below are cumulatively impacted by the proposed project.

Key Intersection	Cumulative
4. Lincoln Boulevard at Fiji Way	AM/PM
5. Lincoln Boulevard at Mindanao Way	AM/PM
6. Lincoln Boulevard at Bali Way	PM

As shown in Table 5.11-7 above, the project's cumulative traffic impacts will remain unmitigated, because capacity-enhancing improvements at these key intersections are not feasible due to physical and right-of-way restrictions that prohibit any widening and/or restriping. The proposed extension of SR-90 (the Marina Expressway), which is listed in the Marina del Rey LIP, will connect to Admiralty Way. The three intersections along Lincoln Boulevard listed above will be subject to cumulative impacts until the SR-90 extension or another equally effective project is constructed. The remaining key study intersections are forecast to continue to operate at LOS B or better in the Year 2013 during AM and PM peak hours with the addition of ambient growth traffic, cumulative traffic, and project traffic.

6. City of Los Angeles Intersection Impacts

The level of service analysis for the three City of Los Angeles study intersections utilized the CMA methodology for signalized intersections per LADOT traffic study guidelines. The three key study intersections all currently operate at an acceptable LOS during AM and PM peak hours. However, the addition of ambient traffic growth in Year 2013 will adversely impact two of the three key study intersections. The intersections of Lincoln Boulevard/Fiji Way and Lincoln Boulevard/Mindanao Way during the PM peak hour are forecast to operate at unacceptable LOS E. The remaining key study intersection is forecast to operate at LOS C or better during the AM and PM peak hours in Year 2013.

While the intersection of Lincoln Boulevard at Mindanao Way is forecast to operate at LOS E during the PM peak hour with the addition of project traffic, the project is expected to add less than 0.010 to the ICU value. This will result in a less than significant impact based on the City's standards and impact criteria, and no mitigation is required. Table 5.11-8 shows that the remaining two key study intersections are forecast to continue at an acceptable LOS with the addition of project traffic.

Table 5.11-8 Year 2013 Peak Hour Intersection Capacity Analysis – City of Los Angeles Methodology

Key Intersections	Time Period	Existing Traffic Conditions (1)		Year 2013 Background Traffic Conditions (2)		Year 2013 Plus Project Traffic Conditions (3)		Project Significant Impact (4)		With Improvements (5)	
		ICU	LOS	ICU	LOS	ICU	LOS	ICU Increase	Yes/No	ICU	LOS
1. Lincoln Blvd. at Fiji Way	AM	0.558	A	0.698	B	0.702	C	0.004	no	--	--
	PM	0.767	C	0.911	E	0.916	E	0.005	no	--	--
2. Lincoln Blvd. at Mindanao Way	AM	0.632	B	0.786	C	0.787	C	0.001	no	--	--
	PM	0.785	C	0.949	E	0.949	E	0.000	no	--	--
3. Lincoln Blvd. at Bali Way	AM	0.461	A	0.597	A	0.599	A	0.002	no	--	--
	PM	0.612	B	0.796	C	0.798	C	0.002	no	--	--

7. Construction Traffic Assessment

The Traffic Assessment qualitatively evaluated the potential traffic impacts associated with construction-related activities. This includes demolition, site grading and construction. The site grading component consist of three non-concurrent phase (mass grading, fine grading and site foundation). The construction component also consists of three non-concurrent phases (building construction, architectural coatings and asphalt paving). The assessment was based on assumptions provided by the project applicant relating to length of time for completion of each phase, number of truck trips and estimated workers. The work week was assumed to be Monday through Friday, 8:00 a.m. to 5:00 p.m. for each phase. The remaining assumptions are as follows:

Demolition

- Duration of 30 days
- Demolition trucks will average 56 trips per day (28 inbound/28 outbound)
- A total of 15 workers on site for the entire work week

Site Grading-Mass Grading

- Duration of 30 days
- Mass grading trucks will average 326 trips per day (163 inbound/163 outbound)
- A total of 26 workers on site for the entire work week

Site Grading-Fine Grading

- Duration of 14 days
- A total of 10 workers on site for the entire work week

Site Grading-Site Foundation

- Duration of 14 days
- Site foundation trucks will average 20 trips per day (10 inbound/10 outbound)

Building Work-Building Construction

- Duration of 180 days
- Building construction trucks will average 84 trips per day (42 inbound/42 outbound)
- A total of 25 workers on the site for the entire work week

Building Work-Architectural Coatings

- Duration of 60 days
- Architectural coating trucks will average 20 trips per day (10 inbound/10 outbound)
- A total of 8 workers on the site for the entire work week

Building Work-Asphalt Paving

- Duration of 10 days
- Asphalt paving trucks will average 20 trips per day (10 inbound/10 outbound)
- A total of 18 workers will be on the site or the entire work week

The following assumptions for each construction component were utilized for truck trips and worker trips:

- The daily number of truck trips was averaged over the nine-hour workday to obtain the number of peak hour truck trips (50% entering/50% exiting)

- All truck trips were converted to passenger car equivalents (PCE) using a PCE factor of 2.0

- Each employee would make two trips per day (one during the AM peak hour and one during the PM peak hour)

Table 5.11-9 provides a summary of the forecast peak hour and daily traffic volumes for each of the construction components. As previously noted, the mass grading construction component and building construction component activities will not occur concurrently.

Table 5.11-9 Project Construction-Related Traffic Generation Forecast

	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Demolition Generation Forecast							
- Construction truck traffic	56	3	3	6	3	3	6
- Passenger car equivalent factor*	2	2	2	2	2	2	2
Subtotal	112	6	6	12	6	6	12
- Workers (15 workers)	30	15	0	15	0	15	15
Total demolition construction-related traffic trip generation potential	142	21	6	27	6	21	27
Mass Grading Generation Forecast							
- Construction truck traffic	326	18	18	36	18	18	36
- Passenger car equivalent factor*	2	2	2	2	2	2	2
Subtotal	652	36	36	72	36	36	72
- Workers (26 workers)	52	26	0	26	0	26	26
Total mass grading construction-related traffic trip generation potential	704	62	36	98	36	62	98
Fine Grading Generation Forecast							
- Workers (10 workers)	20	10	0	10	0	10	10
Total fine grading construction-related traffic trip generation potential	20	10	0	10	0	10	10
Site Foundation Generation Forecast							
- Construction truck traffic	20	1	1	2	1	1	2
- Passenger car equivalent factor*	2	2	2	2	2	2	2
Subtotal	40	2	2	4	2	2	4
- Workers (10 workers)	20	10	0	10	0	10	10
Total site foundation construction-related traffic trip generation potential	60	12	2	14	2	12	14
Building Construction Generation Forecast							
- Construction truck traffic	84	5	5	10	5	5	10
Passenger car equivalent factor*	2	2	2	2	2	2	2
Subtotal	168	10	10	20	10	10	20
- Workers (25 workers)	50	25	0	25	0	25	25
Total building construction-related traffic trip generation potential	218	35	10	45	10	35	45
Architectural Coatings Generation Forecast							
- Construction truck traffic	20	1	1	2	1	1	2
- Passenger car equivalent factor*	2	2	2	2	2	2	2
Subtotal	40	2	2	4	2	2	4

Table 5.11-9 Project Construction-Related Traffic Generation Forecast

	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
- Workers (8 workers)	16	8	0	8	0	8	8
Total architectural coatings construction-related traffic trip generation potential	56	10	2	12	2	10	12
Asphalt Paving Generation Forecast							
- Construction truck traffic	20	1	1	2	1	1	2
- Passenger car equivalent factor*	2	2	2	2	2	2	2
Subtotal	40	2	2	4	2	2	4
- Workers (18 workers)	36	18	0	18	0	18	18
Total asphalt paving construction-related traffic trip generation potential	76	20	2	22	2	20	22

*A passenger car equivalent factor of 2.0 was applied to the truck trips to convert them into passenger car trips.

Construction-related trips associated with trucks and employees traveling to and from the site in the AM and PM may result in some minor traffic delays to vehicles using Lincoln Boulevard and Fiji Way. Traffic impacts to the adjacent roadway network will be minimal and not long-term. The traffic assessment recommends implementation of a construction management plan to reduce impacts of construction-related traffic and minimize traffic impacts on the local circulation system.

Construction Management Plan

The traffic assessment recommends coordination with the County of Los Angeles to prepare a construction management plan that addresses, at a minimum, the following:

- Provide traffic control for any street closure, detour, or other disruption to traffic circulation.
- Identify the routes that construction vehicles will utilize for the delivery of construction materials (e.g., steel, concrete, mechanical equipment, lumber, tiles, piping, windows) to access the site, traffic controls and detours, and proposed construction phasing plan for the project.
- Specify the hours during which transport activities can occur and methods to mitigate construction-related impacts to adjacent streets.
- Require the applicant to keep all haul routes clean and free of debris, including but not limited to gravel and dirt as a result of its operations. As directed by the County of Los Angeles, the applicant shall clean adjacent streets of any material that may have been spilled, tracked, or blown onto adjacent streets or areas.
- Prohibit hauling or transport during nighttime hours, weekends, or federal holidays.
- Require that haul trucks entering or exiting public streets yield to public traffic

- If hauling operations cause any damage to existing pavement, street, curb and/or gutter along the haul route, the applicant will be fully responsible for repairs; the repairs shall be completed to the satisfaction of the County of Los Angeles.
- All construction-related parking and staging of vehicles will be kept out of the adjacent public roadways and will occur on-site.
- This plan shall meet standards established in the current California Manual on Uniform Traffic Control Device (MUTCD) as well as County of Los Angeles requirements.

The recommendations above are herein incorporated in Mitigation Measure T-4 below.

8. Related Projects

A total of 39 related projects within a 2-mile radius of the proposed project were identified through research at the City of Los Angeles, Culver City and County of Los Angeles. These projects have either been built, but not fully occupied, or are being processed for approval. Table 5.11-10 provides a brief description of each project. Table 5.11-11 identifies the resultant trip generation for the 39 projects. These projects are expected to generate a combined total of 78,780 daily weekday trips with 6,960 trips (4,190 inbound and 2,770 outbound) during the AM peak hour and 9,096 trips (4,389 inbound and 4,707 outbound) during the PM peak hour. Exhibit 5.11-11 – Related Project Location Map (page 5-279) identifies the locations of the 39 related projects with respect to the proposed project.

Table 5.11-10 Location and Description of Related Projects

Cumulative Project Location/Address	Land Use	Size
County of Los Angeles Development[1]		
1. Parcel 9 – Woodfin Hotel	Hotel Wetland park	288 rooms 1.46 acres
2. Parcels 10/FF – Neptune Marina	Apartment Boat dock slip (less existing apartment) (less existing boat dock slips)	526 DU 161 slips (136 DU) (184 slips)
3 Parcels 100/101 – Del Rey Shores	Apartment (less existing apartment)	544 DU (202 DU
4. Parcels 95/LLS – Marina West Shopping Center	Retail Restaurant Office (less existing office) (less existing restaurant)	15,612 SF 368 seats 7,888 SF (9,180 SF) (165 seats)
5. Parcel OT – Oceana Retirement Facility	Congregate Care Facility Retail (less existing parking lot)	114 DU 3,500 SF (186 spaces)
6. Parcels 33/NR – The Waterfront	Apartment Retail Restaurant (less existing restaurant)	292 DU 24,300 SF 266 seats (1,067 seats)

Table 5.11-10 Location and Description of Related Projects

Cumulative Project Location/Address	Land Use	Size
7. Parcel 21 – Holiday Harbor Courts	Mixed use Boat dock slip	29,348 SF[2] 92 slips
8. Parcel 44 – Pier 44	Commercial Boat dock slips Dry stack spaces	91,090 SF 143 slips 234 spaces
9. Parcels 55/56/W – Fisherman's Village	Hotel Restaurant Retail Office Boat dock slip (less existing retail/commercial) (less existing restaurant) (less existing boat dock slips)	132 rooms 1,230 seats 24,250 SF 5,200 SF 30 slips (12,984 SF) (16,149 SF) (17 slips)
10. Jamaica Bay Inn	Hotel expansion	69 rooms
11. Parcel 1 – Fuel Dock	Fuel dock accessory building	1,400 SF
12. Parcel 15 – Esprit II	Apartment (less existing apartment)	585 DU (288 DU)
City of Los Angeles Development[3]		
13. 841 California Avenue	Charter high school	420 students
14. 1430 Lincoln Boulevard	Retail Apartment	197,000 SF 280 DU
15. 2005 Lincoln Boulevard	Gas station w/convenience store	6 pumps
16. 2100 Abbot Kinney Boulevard	Office	15,180 SF
17. Millennium-Playa Del Mar Residential Project 5550 Grosvenor Boulevard	Apartment	216 DU
18. 4004 Lincoln Boulevard Mixed Use Project	Condominium Retail	98 DU 6,020 SF
19. 4350 Lincoln Boulevard – Villa Marina Project	Condominium Retail (less existing retail)	244 DU 9,000 SF (21,038 SF)
20. N/W corner Princeton Drive/Carter Avenue	Apartment (less existing light manufacturing) (less existing office) (less existing auto service/repair)	298 DU (24,000 SF) (21,600 SF) (40,000 SF)
21. 4155 Redwood Avenue Condominium Project	Condominium	118 DU
22. 4055, 4063, 4071 Redwood Avenue Condominium Project	Condominium	140 DU
23. 4050 Glencoe Avenue Condominium Project	Condominium	77 DU
24. 4080 Glencoe Avenue Apartment Project	Apartment	64 DU
25. 4115 Glencoe Avenue and 4133 Redwood Avenue - Del Rey Lofts	Condominium Apartment	49 DU 52 DU
26. 4131 Glencoe Avenue Condominium Project	Condominium	117 DU
27. 12700 Braddock Drive	Warehouse Office (less existing laundry building)	134,557 SF 1,357 SF (58,323 SF)
28. Trolley Place and Vista Del Mar	Condominium	46 DU
29. 220 Culver Boulevard Mixed-Use Project	Apartment Retail (less existing restaurant)	63 DU 6,000 SF (4,000 SF)
30. 6819 Pacific Avenue Mixed-Use Project	Apartment Retail Restaurant	29 DU 1,000 SF 3,000 SF
31. 138 Culver Boulevard Mixed-Use Project	Condominium Retail	63 DU 10,051 SF

Table 5.11-10 Location and Description of Related Projects

Cumulative Project Location/Address	Land Use	Size
32. The Village at Playa Vista Project south of the intersection of Jefferson Boulevard and Westlawn Avenue	Office Apartment Retail Community-Serving Uses	175,000 SF 2,600 DU 150,000 SF 40,000 SF
33. Playa Vista Phase I Jefferson Boulevard between Lincoln Boulevard and Centinela Avenue[4]	Apartments/Condominiums Office Retail Production/Staging Support Community Uses	3,246 DU 2,142,050 SF 35,000 SF 1,129,900 SF 65,000 SF
34. Lincoln Place Project – terminus of California Avenue north of Frederick Street	Apartments	99 DU
City of Culver City Development[5]		
35. 11957 Washington Boulevard Office Project	Office	73,569 SF
36. 12803 Washington Boulevard – Baldwin Site	Office Retail	24,872 SF 12,436 SF
37. 13340 Washington Boulevard – Live Work Units	Condominium	41 DU
38. 13365 Washington Boulevard Mixed-Use Project	Retail Condominium	4,183 SF 19 DU
39. 12402 Washington Place	Office Retail	30,400 SF 9,300 SF

1 *Source*: Los Angeles County Department of Regional Planning
2 The 29,348 SF is comprised of a 10,000-SF health club, 2,916 SF of retail uses, 11,432 SF of marine commercial uses, and a 5,000-SF yacht club.
3 *Source*: City of Los Angeles Planning Department
4 Based on discussions with Playa Vista staff, 3,100 dwelling units, 500,000 SF of office space, 25,000 SF of retail space, and 65,000 SF of community uses are currently built and occupied.
5 *Source:* City of Culver City Planning Department

Table 5.11-11 Related Projects Traffic Generation Forecast

Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
County of Los Angeles Development							
1. Parcel 9 – Woodfin Hotel[1]	1,408	64	53	117	46	56	102
2. Parcels 10/FF – Neptune Marina[1]	1,343	24	111	135	86	39	125
3. Parcels 100/101 – Del Rey Shores[2]	1,354	21	99	120	75	36	111
4. Parcels 95/LLS – Marina West Shopping Center	1,108	19	21	40	61	51	112
5. Parcel OT – Oceana Retirement Facility[1]	387	5	5	10	20	21	41
6. Parcels 33/NR – The Waterfront	938	36	127	163	-3	26	23
7. Parcel 21 – Holiday Harbor Courts[1]	-109	4	-2	2	-10	-1	-11
8. Parcel 44 – Pier 44	3,309	14	16	30	105	147	252
9. Parcels 55/56/W – Fisherman's Village[3]	2,375	41	57	98	114	95	209
10. Jamaica Bay Inn[4]	375	15	13	28	11	13	24
11. Parcel 1 – Fuel Dock	62	2	2	4	2	2	4
12. Parcel 15 – Esprit II	1,040	18	85	103	67	30	97
County of Los Angeles Cumulative Projects (Nos. 1-2) Trip Generation Potential Subtotal	13,590	263	587	850	574	515	1,089

Table 5.11-11 Related Projects Traffic Generation Forecast

Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
City of Los Angeles Development[5]							
13. 841 California Avenue[6]	718	119	53	172	28	31	59
14. 1430 Lincoln Boulevard[7]	11,359	168	205	373	446	409	855
15. 2005 Lincoln Boulevard[6]	977	30	30	60	11	11	22
16. 2100 Abbot Kinney Boulevard[6]	167	21	3	24	7	36	43
17. Millennium Playa del Mar Residential Project	1,078	8	80	88	78	37	115
18. 4004 Lincoln Boulevard Mixed-Use Project	841	11	39	50	59	40	99
19. Villa Marina Project	903	11	84	95	73	10	83
20. Princeton Drive/Carter Avenue Apartments	860	-70	103	33	47	-79	-32
21. 4155 Redwood Avenue Condominium Project	691	9	43	52	41	20	61
22. 4055-4071 Redwood Avenue Condominium Project	820	11	51	62	49	24	73
23. 4050 Glencoe Avenue Condominium Project	451	6	28	34	27	13	40
24. 4080 Glencoe Avenue Apartment Project	430	7	26	33	26	14	40
25. Del Rey Lofts	636	9	40	49	38	19	57
26. 4131 Glencoe Avenue Condominium Project	686	9	42	51	41	20	61
27. 12700 Braddock Drive	493	22	2	24	36	136	172
28. Trolley Place/Vista Del Mar Condominiums	270	3	17	20	21	11	32
29. 220 Culver Boulevard Mixed-Use Project	180	13	7	20	29	31	60
30. 6819 Pacific Avenue Mixed-Use Project	620	22	29	51	37	25	62
31. 138 Culver Boulevard Mixed-Use Project	712	10	28	38	46	36	82
32. The Village at Playa Vista Project	24,220	577	1,049	1,626	1,275	1,027	2,302
33. Playa Vista Phase I	14,475	2,724	126	2,850	1,261	2,083	3,334
34. Lincoln Place Project[5]	665	10	40	50	45	24	69
City of Los Angeles Cumulative Projects (Nos. 13-34) Trip Generation Potential Subtotal	62,252	3,730	2,125	5,855	3,721	3,978	7,699
City of Culver City Development[8]							
35. 11957 Washington Boulevard Office Project	810	100	14	114	19	91	110
36. 12803 Washington Boulevard – Baldwin Site	808	41	10	51	29	54	83
37. 13340 Washington Boulevard – Live Work Units	240	3	15	18	14	7	21
38. 13365 Washington Boulevard – Mixed-Use Project	333	5	9	14	13	11	24
39. 12402 Washington Place	747	48	10	58	19	51	70
City of Culver City Cumulative Projects (Nos. 35-39) Trip Generation Potential Subtotal	2,938	197	58	255	94	214	308
Cumulative Projects (Nos. 1-39) Total Trip Generation Potential	**78,780**	**4,190**	**2,770**	**6,960**	**4,389**	**4,707**	**9,096**

1 Source: Traffic Analysis for Parcels OT and 21, prepared by Crain & Associates (February 2010)
2 Source: Traffic Impact Study for the Del Rey Shores Project, prepared by Crain & Associates (August 2005)
3 Source: Traffic Impact Study for the Neptune Marina Apartments and Anchorage/Woodfin Suites Hotel and timeshare Resort Project, Administrative Draft EIR, prepared by Crain & Associates (July 2007)
4 Source: Traffic Impact Study for the Jamaica Bay Inn Project, prepared by LLG Pasadena (revised January 17, 2007)
5 Unless otherwise noted; Source: Traffic Impact Study for the Millennium-Playa Del Mar Residential Project, prepared by Rajo Associates (December 2009)
6 Source: Traffic Impact Assessment for the Lincoln Place Project, prepared by Gibson Transportation Consulting, Inc. (June 2009).
7 Source: Trip Generation, 8th Edition, Institute of Transportation Engineers (ITE), Washington, DC (2008).
8 Unless otherwise noted; Source: Traffic Impact Study for the Millennium-Playa Del Mar Residential Project, prepared by Raju Associates (December 2009)

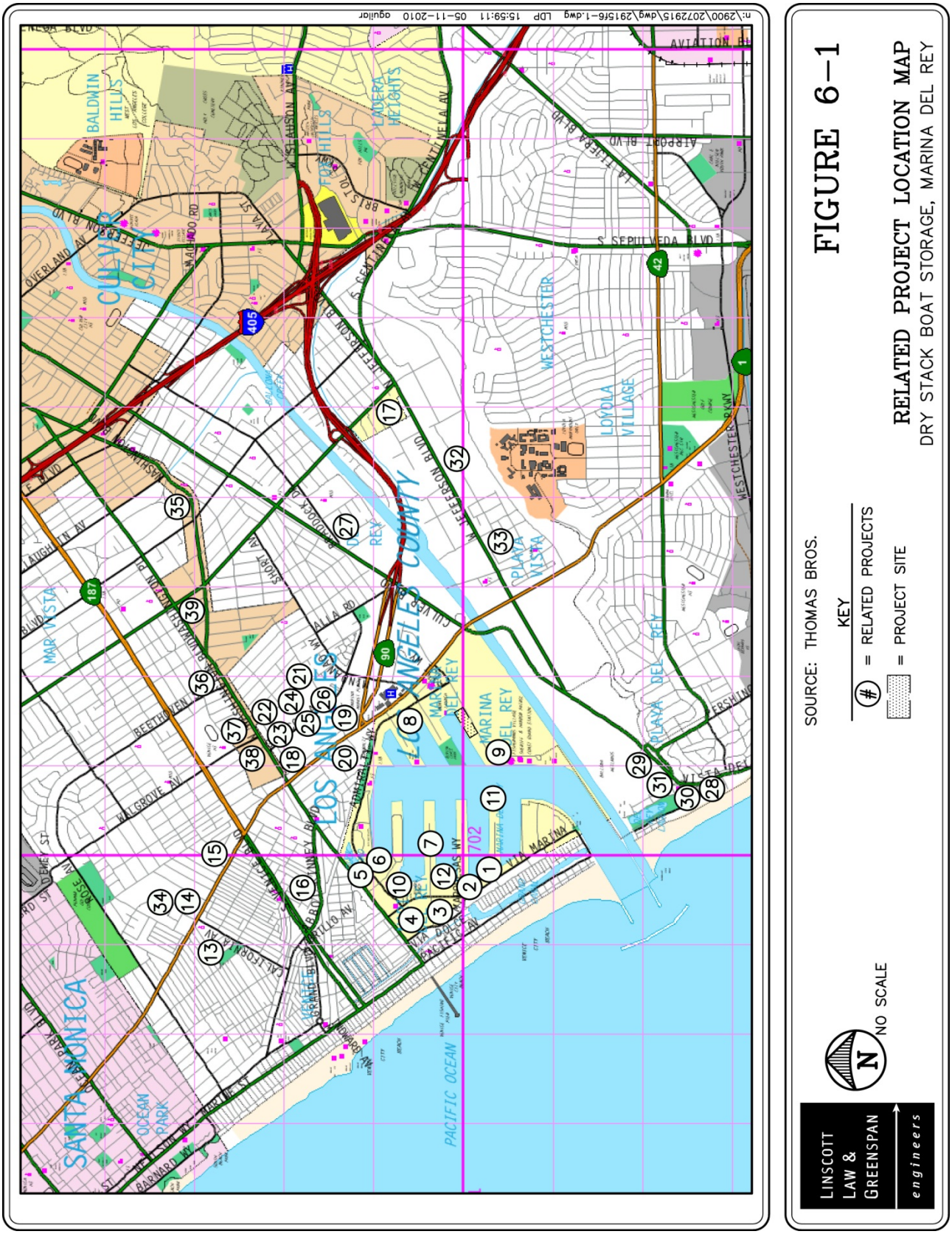


Exhibit 5.11-11 – Related Project Location Map

9. Congestion Management Program

Threshold criteria for analysis of potential impacts to intersections and freeways under the 2004 Congestion Management Program for Los Angeles County include the following:

- All CMP arterial monitoring intersections, including freeway on and off-ramp intersections, where the project will add 50 or more trips during either the AM or PM weekday peak hours.
- Mainline freeway-monitoring stations where the project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours.

Based on the proposed project's trip generation potential, trip distribution and trip assignment, the project will not add 50 or more trips at the identified CMP arterial intersections during either the weekday AM peak hour or PM peak hour. Therefore, a CMP intersection traffic impact analysis is not required.

The proposed project will not add 150 or more trips (in either direction) during either the AM or PM weekday peak hours to any CMP freeway monitoring location. No significant project-related mainline freeway impacts are anticipated and therefore, a CMP freeway traffic impact analysis is not required.

10. Site Access

In addition to the existing driveway to the site, a second driveway is proposed. The existing westerly driveway will continue to provide joint access to the site and the property immediately to the west. The easterly driveway will provide primary access to the site. Neither driveway will be signalized.

Table 5.11-12 Peak Hour Intersection Capacity Analysis Summary for Project Driveway Intersections

Project Driveway	Time Period	Year 2013 Traffic Conditions	
		HCM (Delay)	LOS
Main Project Driveway at Fiji Way	AM	10.6 sec/veh	B
	PM	12.9 sec/veh	B

Table 5.11-12 summarizes intersection operations at the primary driveway for year 2013 traffic conditions at completion and full occupancy. The operations analysis is based on the Highway Capacity Manual 2000 methodology. The primary driveway is projected to operate at LOS B during the AM peak hour and the PM peak hour. Therefore, adequate access to the site will be available, including fire and emergency access, trash pick-up and delivery services as well as access for the routine use of the dry stack boat storage structure.

In addition, the onsite circulation layout of the proposed project is adequate. The Traffic Analysis finds that curb return radii are adequate for passenger cars, boat trailers, small services/delivery trucks, and trash trucks.

11. Parking

The proposed project will provide a parking supply of 134 spaces for the project's uses plus an additional 13 valet spaces for periods of peak parking demand. The total site parking, including valet, will be 147 parking spaces.

Using the Marina del Rey Local Implementation Program parking ratios, there is a requirement for 0.5 parking spaces per boat storage space[34] and 1 space per 400 square feet for office use. This would result in a requirement for 197 parking spaces (188 spaces for the dry stack boat storage structure and 9 spaces for the Sheriff's Boatwright/Lifeguard facility). However, parking ratios for dry stack facilities are unique within local parking ordinances. A common design ratio is 1 parking space per 4 dry storage spaces, which has been found to accommodate even peak holiday usage times. For reference, Table 5.11-13 shows parking ratios for projects in a variety of locations throughout the United States.

Table 5.11-13 Parking Ratio Summary for Dry Stack Facilities

Description Locale/Agency	Parking Ratio (parking space/dry storage spaces)
Industry "design ratio"	1/4
Provisions at actual projects[1]	
Real Island, AL	1/10
Wilmington, NC	1/10
Lake of the Ozarks, MO	1/8
Virginia Beach, VA	1/5
Clear Lake, TX	1/4
North Lake Tahoe, CA	1/4
Sample "code" ratios	
Fort Lauderdale, FL[2]	1/5
Riviera Beach, FL[3]	1/4
Tierra Verde, FL[3]	1/4
Miami-Dade County, FL[4]	1/3
Proposed Marina del Rey Facility (provided for dry stack and mast up)	
Self-park (134-8)/(345+30)	1/2.9 (0.34 space/storage space)
with valet (134-8+13)/(345+30)	1/2.7 (0.37 space/storage space)

1 Roof and Rack (constructors of dry stack facilities
2 Fort Lauderdale Zoning Code: Chapter 47 Unified Land Development Regulations, Article III Development Requirement
3 Riviera Beach Zoning Code: Chapter 31 Zoning, Article VII Off-Street Parking and Loading.
4 Miami-Dade County Zoning Code: Chapter 33 Zoning, Article VII Off-Street Parking.

[34] Marina Del Rey Local Implementation Program, Appendix C, p C-10(c.1)

Table 5.11-14 shows a demand forecast for the proposed project using an industry "design ratio" of 1 space per 4 dry storage spaces as well as a conservative case using a ratio of 1 space per 3 dry storage spaces.

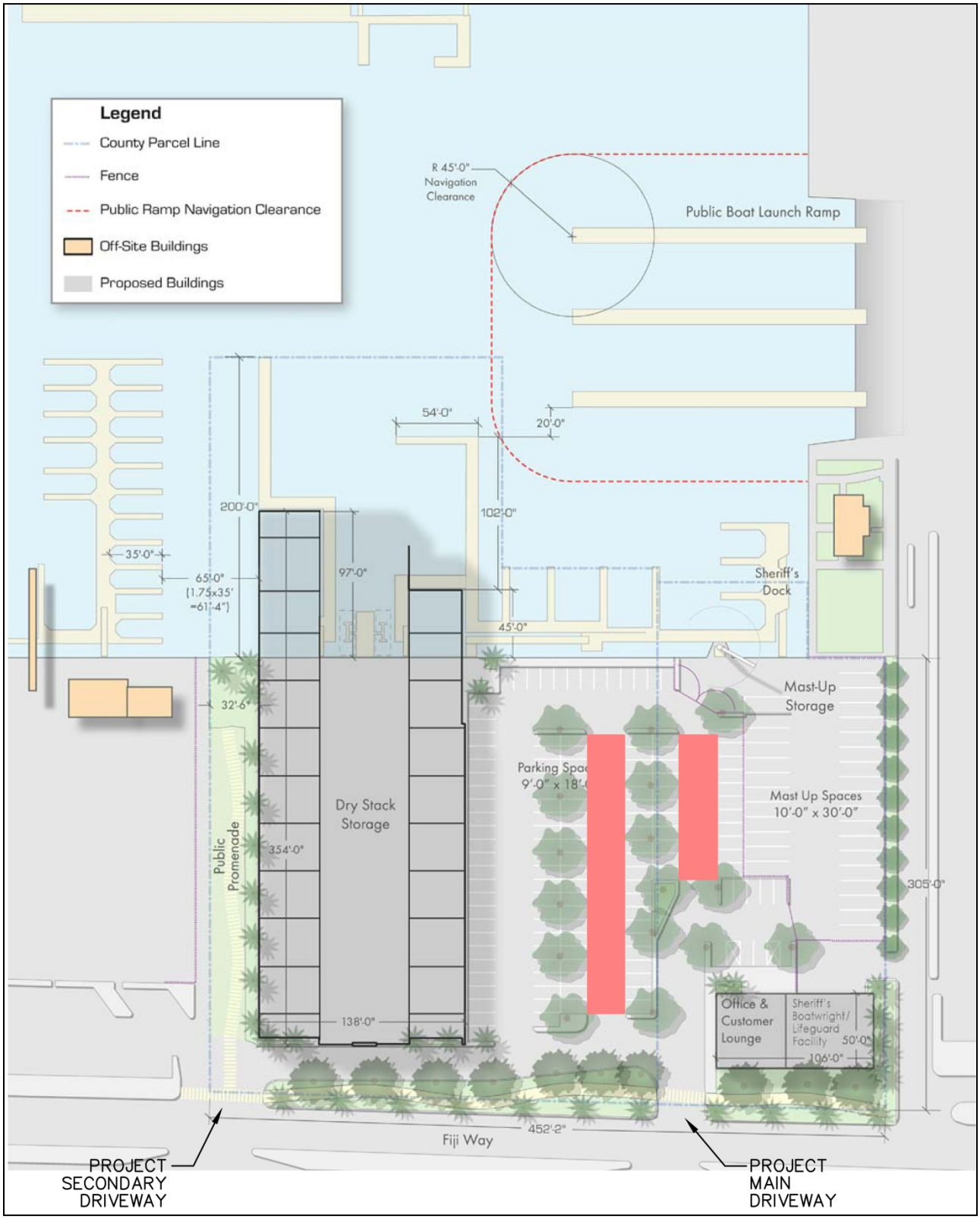
Table 5.11-14 Parking Demand Forecast and Summary

Description	Parking Ratio	Parking Requirement (spaces)
Design Case		
345 dry stack spaces	1 space/4 storage spaces	86
30 mast up spaces	1 space/4 storage spaces	8
3,080 SF office and restrooms	included in above	--
3,350 SF Sheriff's Boatwright/Lifeguard facility	1 space/400 SF	9
	(a) Total required	103
	(b) Provided	134
	Functional surplus (b)-(a)	31
Conservative Case		
345 dry stack spaces	1 space/3 storage spaces	115
30 mast up spaces	1 space/3 storage spaces	10
3,080 SF office and restrooms	included in above	--
3,350 SF Sheriff's Boatwright/Lifeguard facility	1 space/400 SF	9
	(a) Total required	134
	(b) Provided	134
	(b)-(a)	0
	Valet operation at peak operating times	+13
	Functional surplus(b)-(a)	+13

Application of the design ratio of 1 space per 4 dry storage spaces results in a parking requirement of 94 spaces for the 345 dry stack spaces and 30 mast-up-capable spaces proposed. This number includes incidental parking needs of the dry stack boat storage structure office and the restrooms. Adding the 3,350-square-foot Sheriff's Boatwright/ Lifeguard facility at a rate of 1 space per 400 square feet requires an additional 9 spaces, for a total of 103 parking spaces. The proposed number of parking spaces is 134, a functional surplus of 31 spaces above the 103-space total.

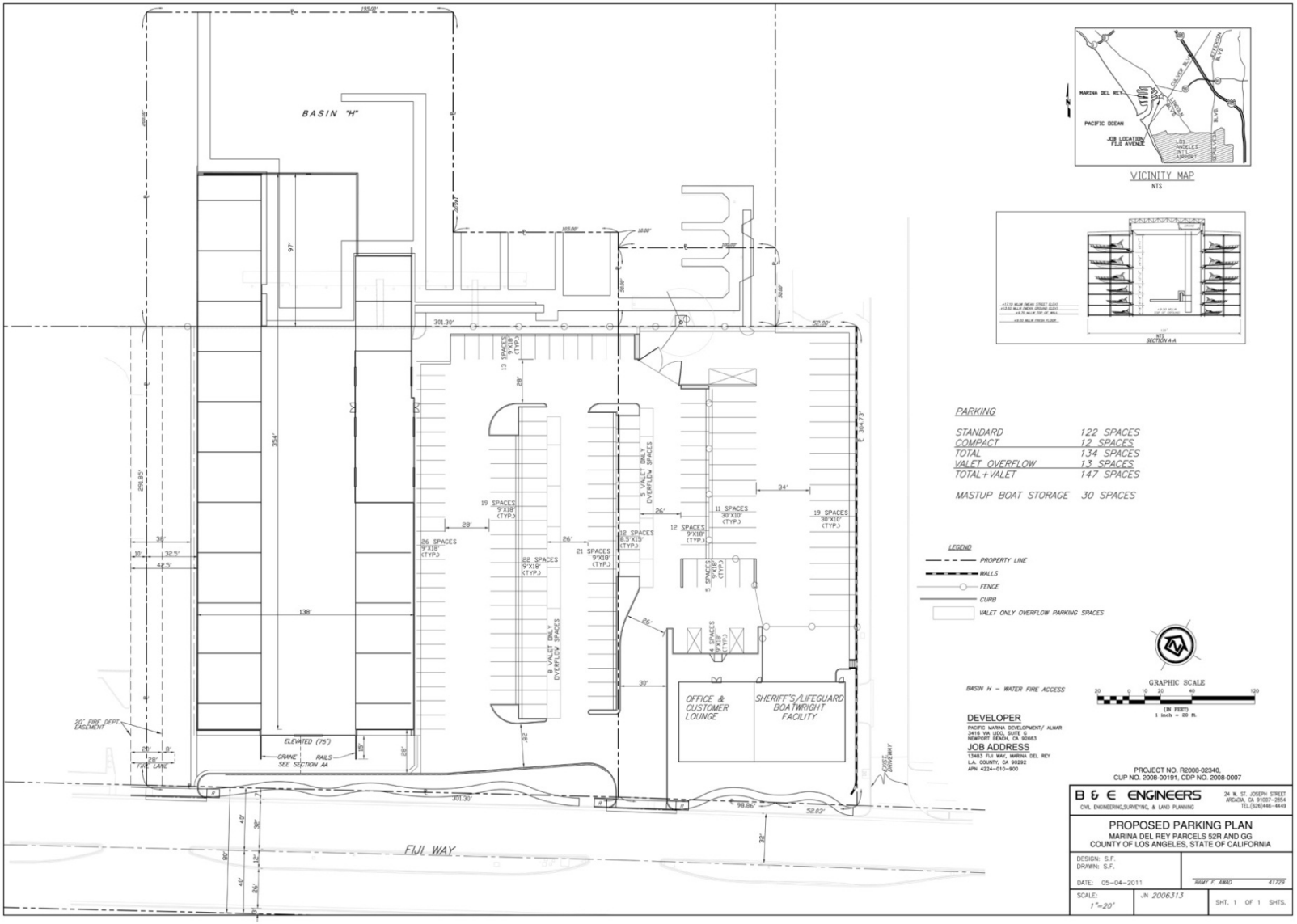
Application of the conservative case ratio of 1 space per 3 dry storage spaces would result in a requirement for 125 parking spaces. The Sheriff's Boatwright/Lifeguard facility would add 9 spaces to the requirement for a total of 134 parking spaces. Using this calculation methodology results in a one-space surplus.

In addition, consideration of valet-assisted parking during projected peak operating times would increase the functional parking capacity to 147 spaces, a surplus of 13 spaces above the conservative case calculation. The location of the proposed valet parking area is shown on Exhibit 5.11-12. Exhibit 5.11-13 – Proposed Parking Plan shows the parking layout for all of the proposed uses on the site. The spaces are in the drive aisles of the parking lot in the shaded areas of the exhibit. Therefore, adequate parking will be provided to serve the proposed project uses.



Source: AC Martin Partners, Inc.

Exhibit 5.11-12 – Location of Valet/Staging Parking Spaces *(shaded area in parking lot)*



Source: B&E Engineers

Exhibit 5.11-13 – Proposed Parking Plan

Public Parking

The displacement of public parking is a short-term impact until additional parking is provided. Additional parking will be made available at Fisherman's Village and the parking structure proposed for construction on Parcel 49. However, neither Fisherman's Village nor Parcel 49 will be completed at the time construction of the proposed project commences and no specific timeframe is available to establish the viability of parking at these locations. The County is exploring options for the interim replacement parking, which includes use of Parcel W (west of Fisherman's Village) or the parking areas previously designated for the Olympic Games. No public parking will be provided on the Boat Central site. Based on a recent study prepared by Raju Associates, Inc. dated June 2010, Marina del Rey contains a number of underutilized parking lots, and the elimination of this temporary parking lot space by the proposed project will not have a significant long-term impact. In the 1996 LCP, Parcel 52 is described as a "Temporary Lot" (Figure 3, page 2-6) to be converted to County office facilities. Accordingly, the parking spaces on Parcel 52 were never intended, based on LCP adopted policy, to be part of the long-term public parking supply. However, in this specific area of the marina, there will be a short-term impact.

In addition to the marina-wide parking study noted above, a site-specific analysis of the temporary public parking lot (Parcel 52) use was prepared by Hirsch/Green Transportation Consulting, Inc. dated July 30, 2007. Observations were conducted on weekdays and weekends. The study categorized the parking lot users as "County Office," "Dock 52," and "Public" parking. The "Public" parking component was observed to be used primarily by bicyclists and others wishing to walk through or otherwise enjoy the marina. Parcel 52's principal attraction is that parking is currently free, unlike all other public parking lots in the marina. Parcel 52 is not adjacent or convenient to any public space or attraction (such as Fisherman's Village or Chace Park). Therefore, it can be inferred that the public use of the lot is limited to those prioritizing a no cost parking option over convenience or bikers seeking free long-term parking adjacent to the South Bay Bike Trail. Since the public parking on Parcel 52 is not tied to the location, it can be accommodated at any of the parking areas throughout the marina.

An additional category of "Long-Term/Overnight Parking" was noted for vehicles using the lot but not having any direct connection with marina-related activities. These vehicles included automobiles, motorcycles, pick-ups, and recreational vehicles. Recreational vehicles are prohibited from overnight parking. However, the study observed that these vehicles depart the site during the restricted hours of 2:00 a.m. to 6:00 a.m., returning to the lot after 6:00 a.m. As detailed in the Project Description, the California Coastal Commission in November 2011 approved an amendment to the Marina del Rey LCP that changes the Parcel 52 designation to "Boat Storage" and affirmed that use of Parcel 52 as a temporary parking lot is no longer necessary.

Dock 52 is used by several charter boat companies to load and unload passengers for fishing, dinner, and other local cruises. The Dock 52 uses could be relocated to a

refurbished public dock adjacent to Parcel W at Fisherman's Village. The patron parking spaces associated with Dock 52 could be relocated to adjacent Lot 1. Use of an alternative dock site for the temporary location of charter boats will not result in a significant impact to these uses.

County Office parking relates to the employee and visitor parking for the County Harbors Administration Annex office and the County Sheriff's Boatwright/Lifeguard facility. The Administration office will be relocated, but the Sheriff's Boatwright/ Lifeguard facility will remain.

In the Hirsch/Green study, user types were categorized as "County Office" (including employees and visitors), "Dock 52" users, and "Public" parking. "Public" parking is the designation in the parking lot analysis for the remainder of the parking lot uses.

The results of the study show that the most significant use of the parking on weekdays and weekends occurs due to Long-Term/Overnight Parking. This is not an allowable use under the LCP, and the County has begun enforcing parking limits. Dock 52 use was heaviest on weekday afternoons. County Office use was heavier during the week between 8:00 a.m. and 5:00 p.m., with a marked decline on weekends. Public parking was relatively stable during weekday afternoons (55 vehicles), with a slight increase on weekends (63 vehicles). The Right-Sizing Parking Study found that the "Typical Weekend Day Peak Demand" for public parking in the entire Fiji Way Activity Area, which includes Parcel 52, was 82 spaces. This figure corresponds well with the findings of the Hirsh/Green analysis.

Category	Maximum Vehicles
Public Parking	63
County Office	17
Dock 52	83
Long-Term/Overnight	99

The adjacent table shows the typical maximum uses for each category. The information was included in the Hirsh/Green Parcel 52 parking study. As noted in the table, 63 public parking spaces will be required to compensate for the elimination of the public parking on Parcel 52 (Public Parking - 63). Mitigation Measure T-2 is provided to ensure that adequate interim public parking is available until the "Public," "County Office," and "Dock 52" parking components are permanently relocated.

Therefore, the bulk of parking functions (charter/cruise boat and County offices) existing on Parcel 52 will be relocated prior to the development of the project and the public parking component can be accommodated anywhere within the marina. An up-to-date parking analysis will be required to ensure that the project has no significant impact on public parking accessibility in the area.

12. Public Transit System

The Los Angeles County 2004 Congestion Management Program requires a review of potential impacts of the proposed project on transit services. Project trip generation was adjusted by values set forth in the CMP (person trips equal 1.4 times vehicle trips and transit trips equal 3.5% of the total person trips). Based on these guidelines, the project is anticipated to generate demand for one transit trip during the weekday AM

peak hour and one transit trip during the weekday PM peak hour. Six daily transit trips are forecast over a 24-hour period based on the following calculations:

AM Peak Hour – 18 × 1.4 × 0.035 = 1 transit trip
PM Peak Hour = 18 × 1.4 × 0.035 = 1 transit trip
Daily Trips = 125 × 1.4 × 0.035 = 6 transit trips

The existing transit service in the project area will adequately accommodate the increase of project-generated transit trips; therefore, no project-related impacts on existing or future transit services in the project area are expected to occur.

13. Marina del Rey Transportation Improvement Program

The Marina del Rey Transportation Improvement Program has identified specific transportation and circulation improvements to mitigate impacts from allowable development within Marina del Rey. Fees for development are outlined in the Marina del Rey Land Use Plan and are based on the amount of PM peak hour trips generated by a project. The proposed project is projected to generate 18 trips in the PM peak hour. Current transportation fees are $5,690 per PM peak hour trip. The proposed project will be conditioned to pay the required fees to mitigate its proportionate share of any potential cumulative impacts.

5.11.4 Mitigation Measures

The results of the traffic analysis indicate that the proposed project will cumulatively impact three of the six County of Los Angeles key study intersections – Lincoln Boulevard at Fiji Way, Lincoln Boulevard at Mindanao Way, and Lincoln Boulevard at Bali Way. In addition, the project applicant shall be required to pay transportation fees as outlined in the Transportation Improvement Program of the Marina del Rey Land Use Plan. The mitigation measures recommended are as follows:

T-1 Prior to the issuance of building permits, the project applicant shall pay Transportation Improvement Program fees based on the PM peak hour trips generated by the project in the amount of $102,420.

T-2 Prior to commencement of construction, the applicant, in coordination with the County Department of Beaches & Harbors, shall prepare an interim parking plan providing 63 public parking spaces in the same general geographic location, which shall remain available until permanent parking is provided.

T-3 Prior to the issuance of building permits, the project applicant shall, in coordination with the County of Los Angeles, prepare a construction management plan that addresses, at a minimum, the recommendations contained in the Traffic Impact Analysis Section 15.3, Construction Management Plan Criteria.

5.11.5 Level of Significance after Mitigation

1. Project Traffic Generation/Distribution and Assignment/Ambient Growth/Volumes

The proposed project is anticipated to generate approximately 125 daily trips, with 18 trips produced in the AM peak hour and 18 trips produced in the PM peak hour on a typical weekday. All six key study intersections in the County of Los Angeles and the City of Los Angeles are expected to continue to operate at LOS C or better during the AM and PM peak hours in year 2013 under existing plus ambient growth plus project traffic conditions.

Using the CMA methodology for signalized intersections per LADOT traffic study guidelines (City of Los Angeles methodology), the traffic analysis indicates that project-related traffic will not have a significant impact at any of the three key study intersections under both City and County jurisdiction when compared to the significant traffic criteria used in the report. While the intersections of Lincoln Boulevard/Fiji Way and Lincoln Boulevard/Mindanao Way will operate at LOS E during PM peak hour, the project is expected to add less than 0.010 to the ICU value.

2. Construction Traffic

Construction-related trips associated with trucks and employees traveling to and from the site may result in some minor traffic delays to vehicles using Lincoln Boulevard and Fiji Way. However, traffic impacts to the adjacent roadway network will be minimal and not long-term. The requirement for a construction management plan has been included as a mitigation measure to ensure that impacts will be less than significant.

3. Related Projects

The 39 related projects within a 2-mile radius of the proposed project were considered as part of the cumulative background setting. The 39 projects are expected to generate a total of 78,780 daily trips on a typical weekday.

4. Congestion Management Program

The proposed project will not result in the addition of a number of trips requiring an arterial monitoring intersection or freeway monitoring station CMP analysis. No significant impacts are expected to occur to the Los Angeles Congestion Management Program roadway network for intersections or freeways due to the development of the proposed project.

5. Site Access

The addition of a driveway to the site will provide adequate access and no impacts will occur.

6. Parking

The project will require a parking permit to provide parking at a ratio less than one space per two boat spaces, as well as valet parking to accommodate project-generated parking demand.

Provision of 134 surface parking spaces will result in a surplus of 31 spaces using the design ratio (1 space per 4 boat spaces) and a surplus of 1 space using the conservative case ratio (1 space per 3 boat spaces) for a dry stack storage structure. Adequate parking will be available on-site and no significant impacts will occur. Public parking for bicyclists and walkers can be accommodated at any of the parking areas in the marina.

7. Public Transit System

The proposed project will not generate a significant increase in the requirement for transit services based on the Los Angeles County Congestion Management Program guidelines.

8. Marina del Rey Transportation Fee

Payment of the required Transportation Fee has been provided as specified in Mitigation Measure T-1.

5.11.6 Cumulative Impacts

The proposed project, upon completion in year 2014, is expected to contribute to roadway operation deficiencies at the intersections of Lincoln Boulevard at Fiji Way, Lincoln Boulevard at Mindanao Way, and Lincoln Boulevard at Bali Way when combined with projected development in the project area. Mitigation to achieve acceptable levels of service for 2014 conditions is not feasible due to physical and right-of-way restrictions that prohibit any widening and/or restriping. The impacted intersections on Lincoln Boulevard will remain unmitigated until the completion of the SR-90 extension or another project of equal effectiveness is built resulting in a cumulative impact.

5.12 Utilities and Service Systems

This section provides a discussion of utilities and service systems that may be affected by the implementation of the proposed project. Existing utility systems that provide services to the project are identified and evaluated for potential impacts. The following analysis is based on information provided by the respective service providers and utility companies.

Service request letters were sent to Los Angeles County Department of Public Works, Southern California Edison, Southern California Gas Company, and Verizon California in order to accurately assess potential impacts of the project. Responses to these letters are included in Appendix K of this DEIR.

5.12.1 Existing Setting

The project site is currently served by water, gas, electric, and telephone. There is a 10-foot-wide easement for sanitary sewer and utilities along the bulkhead. The project does not propose any alteration or construction related to the bulkhead, and all utility lines will remain in place. Following is a description of each of the utilities, the service provider for each utility, and any potential impacts that could occur with project implementation.

1. Water

Water service is provided to the project site by Marina del Rey Water System, owned by Department of Beaches & Harbors and maintained by Los Angeles County Waterworks Districts.

Imported water supplied by the West Basin MWD is primarily obtained from the Sacramento River/San Joaquin Delta through the State Water Project (SWP). The Districts purchase the water from local SWP contractors or regional wholesale water agencies. The water is generally treated using conventional treatment methods including coagulation, flocculation, sedimentation, filtration, and disinfection.

Marina del Rey Water System receives the majority of its water supply from a metered connection from the West Basin MWD. West Basin MWD receives its imported water supply from the Metropolitan Water District of Southern California. According to the 2005 Urban Water Management Plan for District 29, the geology below the District's service area lacks groundwater basins capable of producing an adequate supply of water. Therefore, no groundwater supply sources within the area are used to provide water.

The Marina del Rey Water System (Marina del Rey) is a smaller system served from a metered connection off the transmission main delivering water to the Los Angeles

County Waterworks District No. 29 Malibu System. The Marina del Rey Water System area is depicted on Exhibit 5.12-1 – Map of Los Angeles County Waterworks Districts.

Marina del Rey has a population of approximately 10,000 people. Population projections are developed by the Southern California Association of Governments (SCAG). The projections are used to assess the anticipated number of new connections required.

Water is currently delivered to the site via 10- to 14-inch diameter water mains that form a loop around Marina del Rey. The main service connection is supplied through the City of Los Angeles West Basin MWD. Specifically, there is an existing 12-inch-diameter asphalt-cement water main in Fiji Way and a water meter serving the property. Public fire hydrants are connected to this main located on the same side of Fiji Way as the property that can provide for fire flow of up to approximately 3,500 gallons per minute (gpm). The Los Angeles County Department of Public Works (LACDPW) Beaches & Harbors is proposing to install approximately 20,000 feet of new 18-inch-diameter steel pipeline to replace the existing aged and undersized pipeline, which was constructed in 1962. The new pipeline will be placed along Fiji Way, Admiralty, Bora Bora, and Via Marina in the same alignment as the existing pipeline. The old system will remain in place until it is no longer needed. This replacement will improve the Marina del Rey water system to meet domestic and fire protection water demands. Fiji Way is included in Phase III of the Water System Improvement Plan and will include installation of approximately 9,800 linear feet of pipeline along Fiji Way to Via Marina and ending at Panay Way. Phase II upgrades to the transmission water main in Fiji Way were scheduled to begin in July 2011 with completion in August 2012. Phase III upgrades will start soon after Phase II is completed.

There are no pump stations or storage tanks within the Marina del Rey water system. Marina del Rey accounts for approximately 17% of the water supplied to the District from West Basin MWD. This water is served directly off the transmission water main delivering water to the District. The Marina del Rey water system also has two emergency interconnections with Los Angeles Department of Water and Power (LADWP).

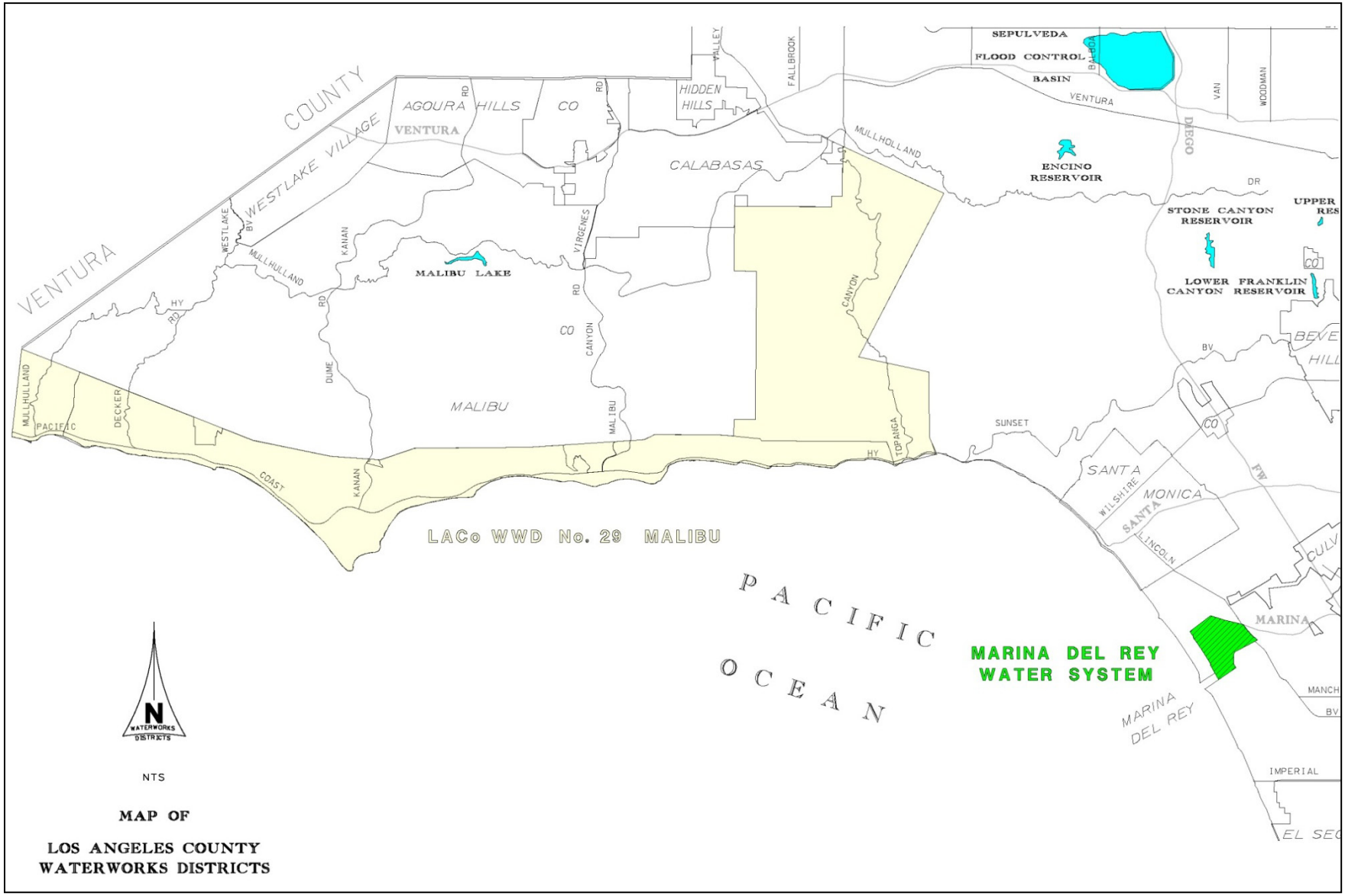


Exhibit 5.12-1 – Map of Los Angeles County Waterworks Districts

2. Urban Water Management Plan

An Urban Water Management Plan (UWMP) was prepared for Los Angeles County Waterworks District No. 29, Malibu (District) and the Marina del Rey Water System in accordance with the California Urban Water Management Planning Act of 1984. The Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt a UWMP. The UWMP is required to be updated at least once every five years in calendar years ending in "5" and "0". The current LACDPW Waterworks District No. 29, Malibu and the Marina del Rey Water System UWMP was approved in June 2011.

The purpose of the UWMP is to assist water agencies plan for future water supply and demand within their service areas. The UWMP notes that the commercial sector of the service area, which includes the proposed project site, is expected to have minimal growth over the next 20 years due to the built-out nature of the area.

The Marina del Rey Water System is a smaller system served directly off the transmission main delivering water to the Malibu System. Marina del Rey's service area encircles the Marina del Rey harbor, providing service to businesses as well as apartment and condominium complexes in the marina through 300 service connections.

3. Wastewater

Sewer service is provided to the project site by the Los Angeles County Sewer Maintenance District. The Sewer Maintenance District system, which is administered by the LACDPW, is made up of the Consolidated Sewer Maintenance District and the Marina Del Rey Sewer Maintenance District. Because the proposed project site is currently developed, sanitary sewers are in place. An existing 10-inch-diameter public sewer is located on the site. A 15-foot-wide easement for sanitary sewer and utilities is located along the northern boundary of the site, as shown on Exhibit 5.12-3 – American Land Title Association (ALTA) Topographic Survey Map (page 5-297).

The District system serves greater than one-half million parcels and a population of approximately 2.5 million people within the unincorporated areas of the County, 40 cities, and two contract cities. Sewer Maintenance services are provided from five maintenance yards located throughout the County of Los Angeles as shown on Exhibit 5.12-2 – Sewer Maintenance Facilities. The project site is located within the South Maintenance Area.

While the LACDPW operates and maintains the Marina del Rey sewer system, the treatment of domestic sewage and wastewater occurs at the City of Los Angeles Hyperion Treatment Plant in El Segundo. In addition to the LACDPW, the City of Los Angeles Department of Public Works provides sewer service to Marina del Rey. The wastewater collected by the City system is treated at the Hyperion Treatment Plan in Playa del Rey.

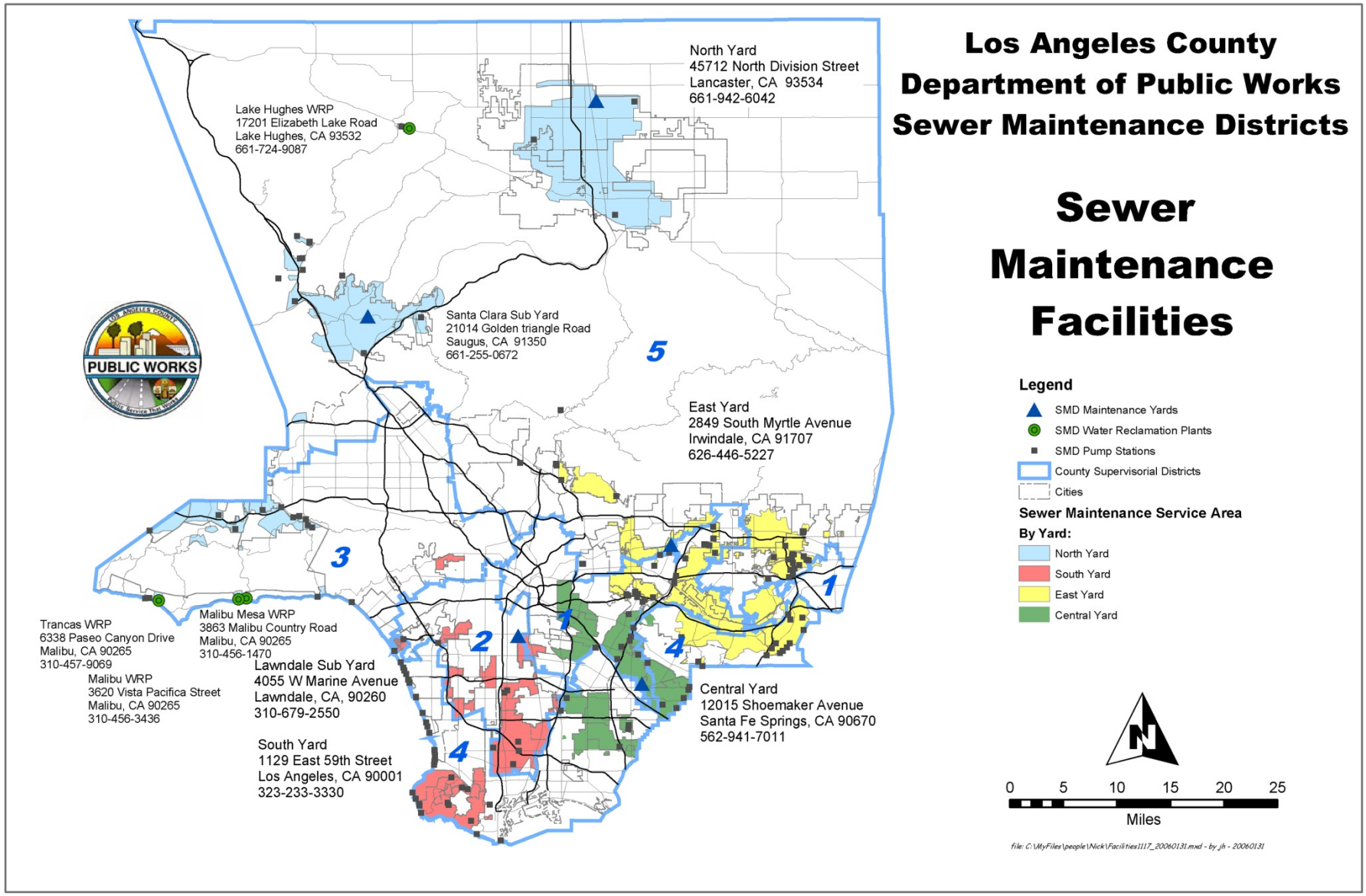


Exhibit 5.12-2 – Sewer Maintenance Facilities

The City of Los Angeles is in the process of constructing a new 54-inch diameter force main sewer for the Venice Pumping Plant. One of the options is that the sewer will cross Grand Canal from the Venice Pumping Plant at Hurricane Street easterly to Marquesas Way, then southerly along Via Marina crossing the Marina del Rey and Ballona Creek Channels to an existing Coastal Interceptor Sewer junction on Vista Del Mar near Waterview Street. The new force main will operate as a parallel system in conjunction with the existing 48-inch force main that runs along the beach. Currently, all of the wastewater from the Venice Pumping Plant is carried in one 50-year-old sewer. An additional sewer is required to protect against spillage in the event that one of the sewers fails. While the new force main sewer will be installed in Marina del Rey in the vicinity of the proposed project, there will be no impact to the project site or from the construction of the Boat Central project.

4. Solid Waste

Solid waste collection and disposal in Unincorporated Los Angeles County are provided to the project site by one of the following three methods: 1) Garbage Disposal Districts, 2) Franchise Solid Waste Collection Districts, and 3) Open Market System.

Garbage Disposal Districts are areas where garbage collection and disposal services are provided by private waste haulers who contract with the LACDPW. Franchise Solid Waste Collection Districts are areas where garbage collection and disposal services are provided by private waste haulers who enter into a franchise agreement with the County based on specific terms and conditions. In the Open Market System, individual residents and businesses contract directly with any private waste hauler servicing the area for solid waste collection services. The Franchise system will replace all Open Market Systems over time. The project site is located in an area where waste disposal is provided through the Open Market System.

5. Electricity

Electricity to the project site is provided by Southern California Edison (SCE) which provides electric power to 13 million people located within 11 counties and 180 cities in Central, Coastal and Southern California over an area of 50,000 square miles. Electrical service is currently utilized by the existing offices and Sheriff's Boatwright/Lifeguard facility, in addition to parking lot lighting. A 15-foot wide utility easement is located along the northern boundary of the site as shown on Exhibit 5.12-3. SCE provided a will serve letter confirming that the project is located within the SCE's service territory. The letter also states that the electrical loads of the project are within parameters of projected load growth, which SCE is planning to meet in the project area. SCE's total system demand is expected to continue to increase annually and that excluding any unforeseen problems, SCE's plans for new distribution resources indicate that their ability to serve all customers' loads in accordance with their rules and tariffs will be adequate during the decade of the 2000s.

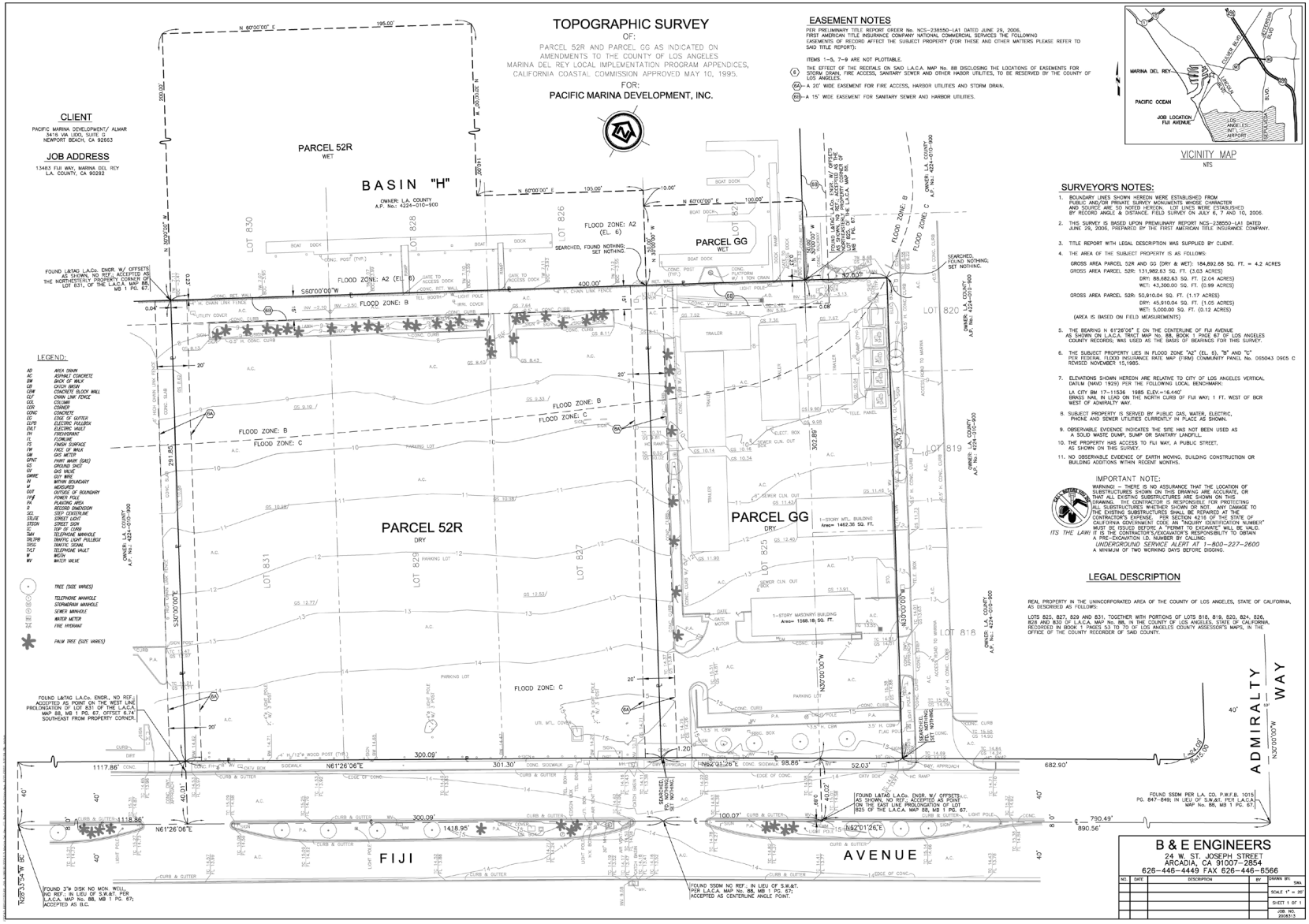


Exhibit 5.12-3 – American Land Title Association (ALTA) Topographic Survey Map

6. Natural Gas

Natural gas for the project site is provided by Southern California Gas, which provides natural gas to over 20 million people located in more than 500 communities in Central and Southern California. Service is currently in place for the existing facilities.

7. Telephone

Telephone service to the project site is provided by Verizon California (Verizon), a division of Verizon West, formerly General Telephone, and Electronics (GTE), the company that was purchased by Bell Atlantic in June 2000. Bell Atlantic was renamed Verizon Communications and retained seven of the thirteen GTE operating companies. The remaining seven companies are collectively called Verizon West, of which Verizon California is a part. Verizon currently has two underground cables entering the project site at 13483 Fiji Way.

- One 24 gauge, 100 copper conductors (50 pair) with color-coded plastic insulation encased in filling compound, wrapped with clear plastic, under a metal shield with an outer alpeth sheath (known in the industry as "AKF 50 24" or "ANMA-50."
- One 24 gauge, 200 copper conductors (100 pair) with plastic insulation not encased in filling compound, wrapped with clear plastic, under a metal shield with an outer alpeth sheath (known in the industry as "AE 100-23" or "BKMA-100."

5.12.2 Thresholds of Significance

The state encourages local agencies to adopt their own thresholds, but it is not required. The County of Los Angeles does not have adopted thresholds of significance for utilities and service systems. Thus, for purposes of this analysis, the applicable thresholds listed in CEQA Guidelines will be used. According to Appendix G of the CEQA Guidelines, the proposed project would have a potentially significant impact with respect to utilities and service systems if it would:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

g) Comply with federal, state, and local statutes and regulations related to solid waste.

5.12.3 Project Impacts Prior to Mitigation

This section will analyze impacts from the perspective of the thresholds listed above. Letters from the service providers confirming ability to serve the proposed project are included in Appendix K.

1. Water

Los Angeles County Waterworks District #29 has confirmed its ability to service the project, as proposed, in an email dated March 4, 2009. The costs associated with protecting in place or relocating existing District #29 Marina del Rey Water System facilities, if required, shall be borne by the project developer. While the proposed project will result in additional water usage, particularly with regard to the boat wash facility, the project is not anticipated to result in a significant increase in the amount of water used at the site. The existing County Department of Beaches & Harbors office facilities will be relocated. The Sheriff's Boatwright/Lifeguard facility will remain. New facilities will include the dry stack boat storage structure and a separate office/lounge building. The landscaped area will not increase substantially beyond what currently exists. However, the Waterworks District will review any requirements by the Fire Department to determine if there will be any required upgrades to the public water system. The applicant will also provide maximum day demands for the facility to determine if any additional upgrades, beyond those already scheduled, could be required.

Because the existing uses were considered in the County's UWMP, and proposed uses will remain substantially the same commercial uses, there is no requirement to prepare a water assessment. No residential uses are proposed on the site. Existing public facilities will be displaced, and as a result there will be no net increase in daily water use[35]. However, Mitigation Measure U-1 has been included to ensure adequate coordination to protect the existing District #29 Marina del Rey Water System facilities scheduled to remain. With implementation of the proposed mitigation, no significant impacts will occur.

[35] Letter from B&E Engineers dated August 10, 2007 and included in Appendix K, Responses to Services Letters.

2. Wastewater

The LACDPW, Marina Sewer Maintenance District has expressed its ability to service the project, as proposed, in a letter dated March 3, 2009.

The proposed boat wash-down facility, which will be located in the sailboat storage area, will filter runoff from the wash down and then divert it to the sanitary sewer system. The system has adequate capacity to handle the additional runoffs[36]. None of the remaining or new facilities on the site are expected to generate abnormal amounts of wastewater. Therefore, no impacts are anticipated to the available capacity in the existing local sewer lines for peak dry- and wet-weather flows pursuant to the Statewide General Waste Discharge Requirements (Order No. 2006-0003). This Order by the State Water Resources Control Board establishes statewide general waste discharge requirements for sanitary sewer systems.

The project, as proposed, will not exceed wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board. Wastewater discharged into the existing sewers will be conveyed to and treated at the Hyperion Treatment Plant in El Segundo. The Hyperion Plant has a current flow of 362 million gallons per day (mgd), which is below its maximum capacity of 450 mgd. Therefore, less than significant impacts would occur in regard to wastewater service. However, Mitigation Measure U-2 has been included to ensure adequate coordination to protect existing Sewer Maintenance District facilities scheduled to remain on the site. The costs associated with protecting in place or relocating existing Sewer Maintenance District facilities, if required, shall be borne by the project developer. Implementation of this Mitigation Measure will ensure impacts to wastewater systems will be less than significant.

3. Solid Waste

Waste Management has expressed its ability to service the project, as proposed, in an undated letter. The project developer will enter into a contractual agreement with the solid waste disposal company to provide trash hauling services. The project is not anticipated to generate a substantial amount of solid waste beyond that which currently exists and impacts will be less than significant.

4. Electricity

Southern California Edison (SCE) has expressed its ability to service the project, as proposed, in a letter dated February 5, 2009. The costs associated with protecting in place or relocating existing SCE facilities, if required, shall be borne by the project developer. However, Mitigation Measure U-3 has been included to ensure adequate coordination to protect the existing SCE facilities scheduled to remain in place.

[36] Letter from B&E Engineers dated August 10, 2007 and included in Appendix K, Responses to Services Letters.

Implementation of mitigation will ensure impacts due to providing electricity to the project site will be less than significant.

5. Natural Gas

Southern California Gas (SCG) has expressed its ability to service the project, as proposed, in a letter dated March 31, 2009. The project developer will be required to coordinate with SCG prior to initiation of gas line construction in order to identify the location of existing facilities. The costs associated with protecting in place or relocating existing SCG facilities, if required, shall be borne by the project developer. Mitigation Measure U-4 has been included to ensure adequate coordination to protect existing SCG facilities scheduled to remain. Implementation of mitigation will ensure impacts due to provision of natural gas to the project site will be less than significant.

6. Telephone

Verizon has confirmed its ability to service the project, as proposed, in an email dated March 12, 2009. Verizon has verified the existing cables serving the site and will not require any upgrades to the system to provide service. Verizon notes that the facilities will require removal on one-half of the site. The remaining facilities will require protection in place. The costs associated with protecting in place or relocating existing Verizon facilities shall be borne by the project developer. Mitigation Measure U-5 has been included to ensure adequate coordination to protect existing Verizon facilities scheduled to remain. Implementation of mitigation will ensure that impacts due to provision of telephone service will be less than significant impacts.

5.12.4 Mitigation Measures

U-1 Prior to the issuance of a grading permit, the project developer shall coordinate with Los Angeles County Waterworks District #29 and Los Angeles County Department of Public Works to determine the exact location of all existing underground water supply facilities and take action to prevent damage to these facilities to be left on the project site or interfere with their operation. The project developer shall pay its fair share required fees for the necessary facilities to accommodate project-related water supplies.

U-2 Prior to the issuance of a grading permit, the project developer shall coordinate with the Los Angeles County Sewer Maintenance District and the Marina del Rey Sewer Maintenance District to determine the exact location of all existing underground wastewater supply facilities and take action to prevent damage to these facilities to remain on the project site. The project developer shall pay their fair share fees for the necessary facilities to accommodate project-related wastewater facilities.

U-3 Prior to the issuance of a grading permit, the project developer shall coordinate with Southern California Edison to determine the exact location of all overhead and underground electrical facilities. All electrical lines and associated structures to be left on the project site shall be protected from damage.

U-4 Prior to the issuance of a grading permit, the project developer shall coordinate with Southern California Gas to determine the exact location of all underground natural gas facilities. All gas lines and associated structures to be left on the project site shall be protected from damage.

U-5 Prior to the issuance of a grading permit, the project developer shall coordinate with Verizon to determine the exact location of all overhead and underground telephone facilities. All telephone lines and associated structures to be left on the project site shall be protected from damage.

U-6 Prior to the issuance of a grading permit, the project developer shall ensure that grading plans reflect the undergrounding of utility lines serving the proposed project.

5.12.5 Level of Significance after Mitigation

Implementation of the proposed project would not result in significant adverse impacts related to water service, wastewater service, solid waste disposal, electrical service, natural gas service, and telephone service. Mitigation measures have been identified to ensure coordination with service providers and minimize potential disruption during construction.

5.12.6 Cumulative Impacts

Implementation of the proposed project would not substantially increase the demand for utility service systems beyond the existing demand. The proposed project's incremental contribution would not be considered cumulatively considerable, and no significant cumulative impacts will occur.

6. Alternatives Analysis

6.1 Introduction

CEQA has long recognized that a rigorous evaluation of project alternatives is key to ascertaining whether major environmental impacts brought about by a proposed project can be avoided or significantly lessened. CEQA and its associated case law require that alternatives be evaluated that are capable of feasibly attaining most of the basic project objectives and offering substantial environmental advantages over the project proposed. CEQA does not require that an agency speculate unnecessarily or re-evaluate previously analyzed alternatives where no new significant information – i.e., in an earlier CEQA document – shows that such alternatives will now be feasible. Additionally, CEQA does not require that the agency evaluate ostensibly infeasible alternatives, or address alternatives that are independent of the goal of reducing environmental impacts.

Therefore, an adequate alternatives analysis is focused on avoiding or substantially lessening the significant environmental impacts brought on by the project as proposed taken in the context of previous environmental and policy evaluations. CEQA is not intended to be used as a means of studying alternative dispositions of a project independent of the environmental impacts that attend it. In other words, CEQA does not require the EIR to address alternatives that are unrelated to the reduction of impacts.

The County of Los Angeles General Plan was adopted in November 1980, and the Marina del Rey Land Use Plan was certified by the California Coastal Commission on February 8, 1996. These documents identify the site as Specific Plan and Public Facility, respectively. In order to implement the proposed project, the Marina del Rey Specific Plan will require an amendment to change the land use category from Public Facility to Boat Storage with a Waterfront Overlay Zone. The proposed project uses are consistent with these land use categories.

To allow an appropriate context for evaluating alternatives, CEQA requires that the Lead Agency enumerate the basic project objectives. This disclosure assists in developing the range of project alternatives to be investigated in this section, as well as providing a rationale for the adoption of a Statement of Overriding Considerations, if one is in fact adopted. Listed below are the main goals and objectives as stated in Section 4.5, Project Goals and Objectives (beginning on page 4-37).

- Development of a state-of-the-art dry stack boat storage structure incorporating boater-friendly water-oriented design

- Development of a view park to provide opportunities for the public to observe boating
- Bring a new option of boat storage and a new level of service to the Marina del Rey boating community
- Increase the number of boat storage spaces within Marina del Rey
- Provide docking facilities that comply with the Americans with Disabilities Act (ADA)
- Encourage recreational boating and visitation and use of the marina's retail, restaurants, and public facilities in the project vicinity
- Preserve open water area for recreational boating by expanding boat storage facilities on dry land instead of constructing wet slips
- Take advantage of site design to reduce contribution of pollutants normally associated with wet slips and boat maintenance

Although CEQA calls for the evaluation of alternatives that could feasibly attain most of the basic purposes of the project, the central goal of the EIR's alternatives analysis is to reduce or eliminate environmental effects of the proposed project that have been identified in the analytical portions of the EIR (CEQA Guidelines §15126.6), not to evaluate project alternatives that are not capable of reducing impacts, or that merely are variations on a theme.

Additionally, and because the project proposes an amendment to the Local Coastal Program, the standard of review for an LCP amendment becomes important in the analysis of alternatives. The standard of review is described in Section 5.7 – Land Use and Planning and forms the basis for Alternatives 2 and 3.

It is the intent of this chapter to describe, or reference the description of, all reasonable and feasible alternatives to the project that could attain most of the basic project objectives and avoid or substantially lessen any significant effects of the project. These alternatives appeal to a wide range of mitigation and palliative effects, and provide a strong foundation for public discussion. Sufficient information is presented herein to create variations of alternatives, if desired.

6.2 Feasibility

Section 15126.6(f)(1) of the CEQA Guidelines explains how feasibility is to be considered for alternatives capable of otherwise resolving environmental impacts resulting from the project as proposed. This section states that among the factors that may be taken into account in determining feasibility are:

- Site suitability
- Economic viability
- Availability of infrastructure
- General Plan consistency
- Other plans and regulatory limitations
- Jurisdictional boundaries (projects with a regionally significant impact should consider the regional context)
- Whether the proponent can reasonably acquire, control or otherwise have access to the alternative site

6.3 Alternatives Considered But Not Advanced

CEQA does not require that the discussion of alternatives be exhaustive, or demand evaluation of alternatives that are not realistically possible, given the failure to meet the basic project objectives and limitation of time, energy and funds. The EIR does not consider alternatives that are infeasible, and the alternatives discussed in this section were rejected for the following reasons:

- The project alternative is considered infeasible due to failure to carry out the basic goals and objectives of the proposed project.
- The project alternative is considered infeasible because its implementation is remote and speculative.

The following project alternatives were considered but not advanced for future review. These alternatives fail to carry out the goals and objectives of the proposed project.

- Alternative Locations – The marina is nearly built-out, and few parcels remain for development or potential redevelopment. A suggestion was made during the scoping process that a boat storage facility should be located outside Marina del Rey. The following parcels within Marina del Rey have been determined not to be viable for the type of facility the proposed project is advancing.

- Pier 41 – The location would not support this type of project. There is inadequate room for parking and, due to space constraints and the configuration of the parcel, this alternative would accommodate fewer boats. The existing wet slips would be eliminated, further reducing the number of available boat slips in the marina.

- Parcel 49 – Parcel 49R currently contains the public launch ramp and parking. There are no current applications with the County to convert the public launch ramps to another use. While the public launch ramp function will remain, as detailed in Section 5.9, Public Services, the County recently released an RFP for Parcel 49 that includes a new county office building. Parcels 49S and 49M are landlocked parcels with no water frontage. This would require delivery of boats from the storage facility to the water, and vice versa, on a trailer, reducing the efficiency of the boat storage use.

- Parcel 53 – This parcel is directly adjacent to the proposed project. Development of the proposed dry stack boat storage structure on this site would eliminate the existing wet slips associated with Parcel 53 and the existing boatyard. The environmental impacts of this alternative would be similar to the proposed project on Parcel 52. Parcel 53 is larger than Parcels 52 and GG and could accommodate the same number of boats and trailers as the proposed project. Similar to the proposed project, the massing and bulk would create a significant aesthetics impact. Provision of the view corridor required by the LCP, as well as mast-up storage and the Sheriff's Boatwright/ Lifeguard facility, would be feasible on Parcel 53. Parking could be accommodated on-site. However, this alternative would displace existing wet slips within the Marina, along with the boatyard, in order to accommodate the requisite dock system required for the boat storage facility. The boatyard and the wet slips are considered priority uses within the marina, the elimination of which would impact marina boaters. Given the lack of a significant reduction in impacts and the displacement of high priority, coastal-dependent land uses (the boatyard and the wet slips) this alternative was not advanced.

- Parcel 53 – Landside Only –This alternative would place all components of the proposed project within the landside boundaries of Parcel 53, eliminating the over-water portion of the structure. The alternative would likely require scaled-down project components to accommodate the Sheriff's Boatwright/Lifeguard structure, the mast-up storage area, and the required parking for those uses assuming the boat storage capacity would remain at 345. The existing uses on Parcel 53 would be replaced by the project components, eliminating

the boatyard, as well as the dock system for in-water slips. The boatyard is a priority use within the marina, the elimination of which would result in an impact to marina boaters.

In addition, parking on-site could be a potential problem if all components were included, requiring less convenient off-site parking alternatives for customers and employees. Due to the parcel size constraints and the elimination of priority uses within the marina (the boatyard and the wet slips), this alternative was not advanced, as it does not meet the proposed project goals to maximize dry stack boat storage availability, provide additional mast-up storage, and support the Sheriff's Boatwright/Lifeguard operation with adequately sized facilities.

- Parcels 52 and GG and Parcel 53 – It was suggested in a comment letter responding to the Initial Study/Notice of Preparation for Boat Central that an alternative be considered that combines the project site with the adjacent Parcel 53 in a landside-only alternative. The alternative would combine the project elements with the existing boatyard on Parcel 53. Elimination of the over-water component means use of the crane is not feasible. Therefore, a landside-only project would require use of a forklift to transport boats to and from storage racks. Use of a forklift would limit the building height to approximately 50 feet, resulting in a shorter, wider building oriented parallel to rather than perpendicular to Fiji Way. It is estimated that in order to accommodate a similar number and mix of boats as the proposed project, a landside-only facility would have to be approximately 180 feet wide and 380 feet long, not including the proposed office and customer lounge and on-site boat repair facility.[37] Such a large building footprint would occupy nearly all of Parcel 52 and would require significant portions of other project elements such as view corridor, parking, mast-up storage and the Sheriff's Boatwright/Lifeguard facility and yard to be located on Parcel 53. The area required to accommodate these elements on Parcel 53 would result in a substantial encroachment onto the existing boatyard repair facility. This alternative would impact an existing recreational boating support facility (e.g., repair facility and wet slips). While the landside dry stack structure would be shorter than the proposed project, vistas of the marina from the adjacent properties and Fiji Way would not be improved. Given the significantly greater frontage of the building along Fiji Way, this alternative creates a more severe aesthetics impact than the proposed project. Due to the demolition of the boatyard repair facility and the

[37] Refer to Alternative 2 analysis of a 310-foot-long building housing 270 boats.

dock system and construction activities required by this alternative, as well as the larger size of the building that would be created, it is estimated that impacts would be greater than the proposed project in the areas of aesthetics, air quality, geology and soils, hazards and hazardous materials, noise, and wind. Impacts would likely be similar to the proposed project in the areas of biological resources, hydrology/water quality, land use and relevant planning, public services, traffic and transportation, and utilities. As such, this alternative was not advanced because it would result in additional and more severe environmental impacts as compared to the proposed project and would encroach upon an existing, priority, water-dependent land use.

- Burton Chace Park – The County recently prepared a Master Plan for redevelopment of the park. The Master Plan identifies a Boating Center in the first phase of redevelopment. The Boating Center is identified as 2 stories, with eight 20-foot by 75-foot bays for boat storage. A boat storage facility with the capacity proposed under the project would not be feasible under the Master Plan for Burton Chace Park. Such a facility would be out of scale with the existing and proposed development at the park, which includes kayaks and smaller personal watercraft.

- Alternative Site Use – A number of alternatives were advanced during the scoping process that are ostensibly infeasible and/or independent of the goal of reducing environmental impacts. These alternatives include:

  - Ballona Wetlands Viewing Platform – The idea of a viewing platform has been advanced as a means of capitalizing on the height of the boat storage structure and the site location, adjacent to Area A. Given the height of the boat storage structure, a viewing platform on the roof would provide sweeping views of the marina, the Pacific Ocean, and across the Reserve. A platform would allow for observation of wildlife within the Reserve without disturbing any biological resources. While such a viewing platform would provide a unique public viewing opportunity (the height of the building would become a public benefit, providing a distinct vantage point), such a platform is infeasible because of the design of the boat storage structure. The structure will not have a flat roof; rather, a portion of the roof will be approximately 70 feet in height, with the protective covering for the crane at the center of the building, a maximum of 81.5 feet in height. The articulated roof of the boat storage structure would make the placement of a viewing platform infeasible. Access to the platform would also be of concern. Access could not be provided through the inside of the structure, because of safety

considerations due to the industrial nature of the boat storage facility. No pedestrian access is permitted through the structure. Only qualified employees are allowed access to the crane and the catwalks for boat removal and storage. The most cost effective means of view access would be a stairwell allowing pedestrians to climb to a height to view Ballona Wetlands. However, an exterior stairwell might be considered aesthetically unfavorable. Additionally, providing ADA access would be infeasible, given the constraints of the structure's design and use. Equipping the structure with an elevator would add considerable bulk to the exterior along Fiji Way. While this viewing platform would be a public benefit, it does not specifically reduce any project impacts, and it appears to be infeasible for the reasons stated above. A better location for such a use would likely be the Ballona Wetlands.

- Open Tidal Conduit – A tidal culvert/marina ditch channel is located under the project site, running from Area A, under Fiji Way, discharging into Basin H. A recommendation was made to open the culvert, allowing views of the linkage between Basin H and Area A. However, a study by Rick Ware, Coastal Resources Management, Inc., titled "Tidal Culvert field Survey Results" (Appendix E-1 herein) notes that the elevation of the culvert opening at the Ballona Wetlands is higher than the culvert entrance in Basin H. The study also reported that the Marina Ditch may support California killifish and mosquitofish and potentially other species; however, the survival of these species is likely extremely limited due to the excessively shallow depths and water quality. The culvert does not provide a significant amount of seawater to Area A, and there is little in the culvert that would provide significant marine life viewing opportunities. If the culvert were exposed, it would bisect Parcels 52 and GG, making site circulation between the two parcels impossible. If the culvert were to be exposed continuously from Basin H to Area A, it would also impact Fiji Way, necessitating a bridge to allow for vehicular and pedestrian access. This suggestion is infeasible and does not reduce any project-specific impacts.

6.4 Alternatives Presentation

The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines §15126.6(f)). With the historical and regulatory context as a backdrop, a review of alternatives to the project that minimize impacts brought about by the project and are not addressed in other CEQA documents can proceed. The

reader will find three types of alternatives in this section, which in some cases may be combined. Alternatives include:

- **No Project Alternative** – This alternative allows decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.
- **Alternative project design** – On-site alternatives to the proposed project that suggest variations in the design of the project as proposed.
- **Alternative use of the project site** – Alternative uses for the project site as allowed under the County of Los Angeles General Plan, the Marina del Rey Specific Plan, and the Marina del Rey Land Use Plan.

While an array of alternatives has been presented herein, the EIR itself, as well as the Project Alternatives section, provides sufficient documentary material from which to construct any permutation of alternatives on the project insofar as environmental impacts are concerned. Therefore, this Project Alternatives section is intended to present a reasonable palette of alternatives for discussion and evaluation, and even perhaps suggest modifications or adjustments to alternatives that in themselves might be new. A site plan of the proposed project is shown on Exhibit 4.3-1 (page 4-11), for reference and comparison purposes with alternatives analyzed herein. Table 6.4-1 lists a comparison of these alternatives with the proposed project.

Table 6.4-1 Summary Matrix of Impacts of Alternatives in Relation to Proposed Project as Mitigated

Alternative	Aesthetics	Air Quality	Biological Resources	Geology/Soils	Hazards/Hazardous Materials	Hydrology/ Water Quality	Land Use/ Relevant Planning	Noise	Public Services	Recreation	Transportation and Traffic	Utilities
Alternative 1 No Project	–	–	–	+	*	+	–	–	*	+	–	*
Alternative 2 Landside Only	+	–	*	*	*	*	*	–	+	+	–	*
Alternative 3 Reduced Building Height, Same Footprint	*	*	*	*	*	*	*	–	*	+	–	*
Alternative 4 Alternate Land Use, Public Facility	–	*	–	–	*	*	–	*	+	+	*	*

\+ Potential impacts are greater than proposed project
\- Potential impacts are less than proposed project
* Potential impacts are equal to proposed project

6.5 Project Alternative 1 – No Project

6.5.1 Description of Alternative

The No Project Alternative assumes that the project would not be built as described in this EIR. A review of the No Project Alternative must be included in every EIR pursuant to state law. Impacts from the proposed project would not be as stated in this EIR. However, because the project is designated Public Facility in the County's Land Use Plan, and could be built to a more intense use, it cannot be said that those impacts would not occur at all. The selection of the No Project Alternative merely stands for the proposition that the project as currently proposed would not be implemented. Since the site has existing development and no change would occur, the No Project Alternative would not involve any new environmental impacts.

1. Aesthetics

The project site currently consists of a mixture of a 245-space temporary public parking lot, the Marina del Rey Sheriff's Boatwright/Lifeguard facility, a maintenance shop and a maintenance/storage yard. The waterside portion of the site includes a dock utilized by charter fishing ventures and a separate dock that is utilized by the Sheriff's Department. The No Project Alternative would maintain the current functions of the site. This alternative would not affect the existing appearance of the site, and views across Parcel 52 would remain relatively unobstructed over the tops of parked cars. Views across Parcel GG would remain obstructed by existing Los Angeles County offices. New shade/shadow impacts associated with the proposed project would be less with the No Project Alternative.

2. Air Quality

Short-term construction impacts and long-term operational impacts to air quality would not occur under the No Project Alternative. Under the No Project Alternative, the site would continue its current uses, which are nominal. The Air Quality Assessment showed potential short-term impacts to be below the identified thresholds of significance. Long-term emissions associated with the project are also not expected to exceed the thresholds. Therefore, the No Project Alternative is marginally superior to the proposed project in terms of air quality.

3. Biological Resources

No long-term biological impacts were identified in the EIR analysis. Short-term impacts would occur due to construction noise and water turbidity. As there is no sensitive vegetation on the site, the removal of the existing landscaping will not have a significant effect. Since the project proposes landscaping of the promenade and view park, the proposed project provides additional vegetation compared to the existing

amount. The No Project Alternative would eliminate the potential short-term construction impacts to fish and birds associated with project implementation.

4. Geology/Soils

Under this alternative, there would be no earthwork, and hence no impacts to existing geological conditions on the site. The site is in a liquefaction zone with a potential for impacts to the seawall from earthquake-induced liquefaction. The proposed project is required to comply with earthquake-resistant construction techniques and the use of pile foundations for the dry stack boat storage structure, thereby reducing the potential for seawall failure. The No Project Alternative would not provide any additional geologic stability for the seawall and could result in greater impacts than the proposed project due to the liquefaction potential.

5. Hazards and Hazardous Materials

Under the No Project Alternative, there would be no impacts related to hazards and hazardous materials. However, the No Project Alternative includes no demolition of buildings that could potentially contain hazardous materials. The existing Sheriff's Boatwright/Lifeguard facility uses motor oil and solvents. This facility will continue in operation. The proposed boat storage structure will use and store oil, paint, solvents, and fuel. The facility would be required to implement BMPs to eliminate potential impacts from use and storage of these materials. The No Project Alternative would not change the status of the existing facilities' use of hazardous materials. However, no additional materials would be introduced to the site.

The leaking underground storage tank that was identified in the Phase I Environmental Assessment has impacted soil and groundwater on Parcel GG. The County of Los Angeles is responsible for the remediation of this contamination, and the proposed project will have no impact on the remediation.

6. Hydrology/Water Quality

The project site is currently developed with a temporary public parking lot, County offices, and the Sheriff's Boatwright/Lifeguard facility. Under the No Project Alternative, the impervious surface on the site would not change, and surface runoff would continue to run into Basin H, untreated. The proposed project will increase permeable surface on site by 178%, and provide upgraded water quality and drainage facilities to ensure that any water runoff from the site would not degrade water quality. Impacts in this area will be more significant under the No Project Alternative.

7. Land Use and Relevant Planning

The Local Coastal Program Land Use Plan includes the following policy: Lower cost visitor and recreational facilities shall be protected, encouraged and, where feasible, provided. Developments providing public recreational opportunities are preferred.

(Policy 4) The No Project Alternative does not advance this policy, because the existing temporary public parking lot would remain in place, offering limited recreational opportunities other than parking for users of the South Bay Bike Trail and cruise boat patron parking. There are many other areas where bikers can be accommodated with significant public parking throughout the marina, including the nearby Lot W. Cruise boat loading, off-loading, and patron parking could be accommodated at Fisherman's Village. The Land Use Plan also encourages availability of boating opportunities as a top priority in the marina, a goal that would not be achieved without the project. However, the LCP Amendment would not be required under the No Project Alternative. The top priority of the LCP would not be promoted, but an LCP Amendment would not be required. Therefore, impacts in this area will be relatively the same under the No Project Alternative.

8. Noise

Under the No Project Alternative, current noise levels on the site would remain unchanged. No construction would occur and, therefore, no short-term noise impacts would result. Additionally, this alternative would not result in any long-term impacts on the site or in the surrounding marina areas. Project implementation would result in higher ambient daily noise levels due to construction activities in the short term and the operation of the crane in the long term. Impacts in the area of noise for the No Project Alternative would be less than the proposed project.

9. Public Services

Under the No Project Alternative, the County administrative office trailers would remain on-site; there would be no need to relocate the offices to a centralized location. The No Project Alternative would not change the provision of public services in the County. The existing Sheriff's Boatwright/Lifeguard facility would remain unchanged. Impacts in the area of public services for the No Project Alternative would be generally the same as the proposed project because, while there would be no immediate need to relocate County trailers, County offices would remain disjointed without a main facility.

10. Recreation

The dry stack boat storage project provides increased recreational opportunities for the boating public. The project promotes the main goals of the LCP, to maximize public boating facilities. Under the No Project Alternative, increased recreational opportunities would not be provided, and impacts would be greater than the proposed project.

11. Traffic and Transportation

Traffic and transportation impacts associated with the No Project Alternative would be less than the proposed project. If no dry stack boat storage structure is built, resultant traffic associated with this use would not be present in the vicinity of the project site. While the proposed project would not result in significant impacts in the area of traffic and transportation, the project would result in a slight increase in daily traffic.

12. Utilities

The project site is in an urban development that is currently served by all appropriate utilities. Each utility that is in place has the capacity to serve the project. A No Project Alternative would not change these conditions or the utility provider's ability to serve existing clients. Impacts in this area would remain substantially the same under this alternative.

6.5.2 Attainment of Project Objectives

This alternative is not capable of attaining most of the project objectives, which include expanding the opportunity for recreational boating, providing additional dry stack boat storage for Marina del Rey incorporating boater-friendly, water-oriented design, providing docking facilities that comply with Americans With Disability (ADA) standards, encouraging recreational boating and visitation and use of the marina's retail, restaurants and public facilities, and bringing a new level of service to the Marina del Rey boating community.

6.6 Project Alternative 2 – Landside-Only

6.6.1 Description of Alternative

Analysis of the Landside Only Alternative was based in large part on a proposed plan designed and submitted in response to the County's 2005 Request for Proposals (RFP) for the project site. The design details from the RFP response have been included in this Alternative and are the basis for the analysis provided herein. The RFP response design includes a dry stack boat storage structure, with attached office, lobby, and marine commercial space, as well as parking on Parcel 52 and GG and mast-up storage. Additional parking would be located off-site on adjacent Parcel 53, which houses a boat maintenance and repair facility. The RFP response design did not include the Sheriff's Boatwright/Lifeguard facility or the Sheriff's boatwright yard.

The Landside Only Alternative calls for elimination of the over-water portion of the structure. Eliminating the over-water portion of the structure would make the use of the crane infeasible because the crane conveys boats directly from the racks to the

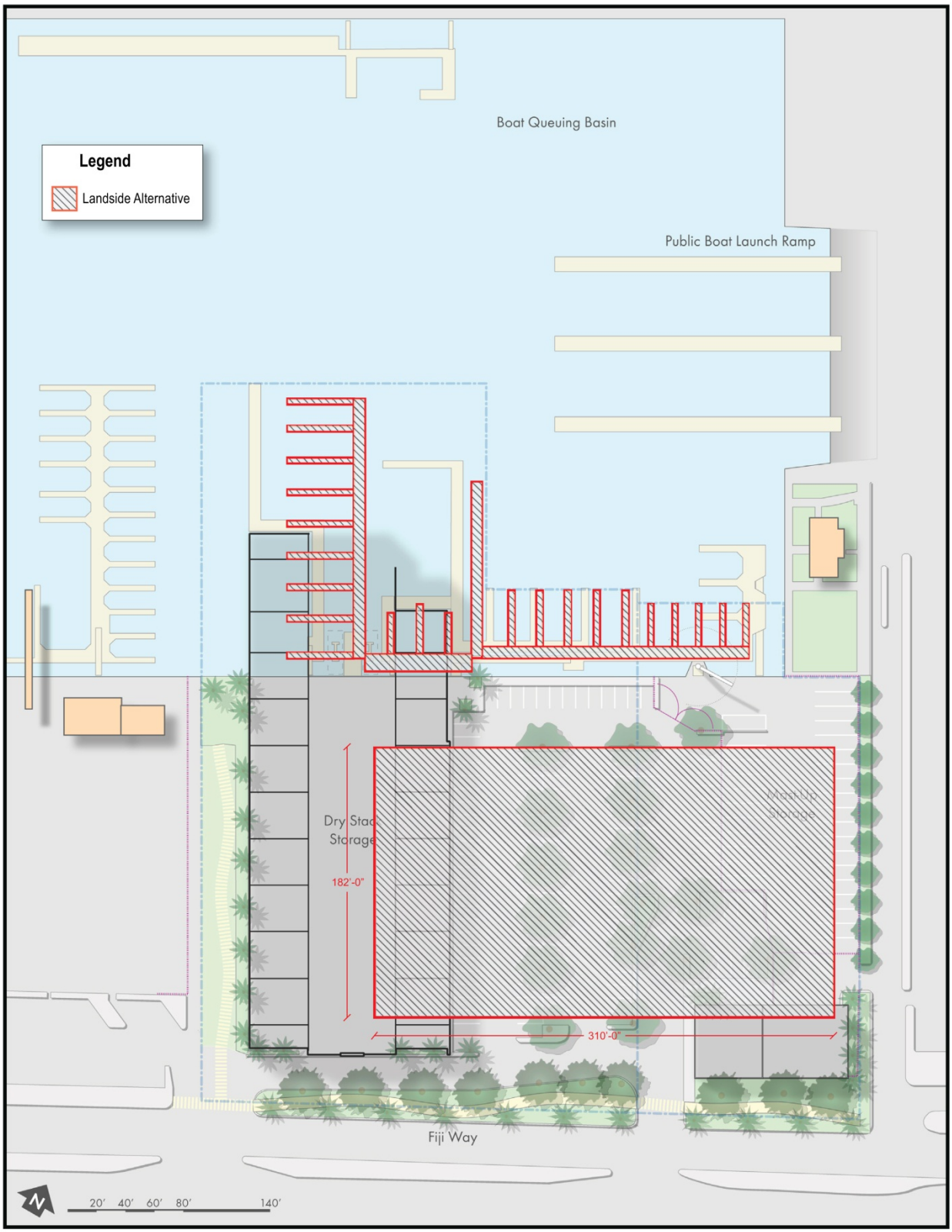
water. In addition, the reduced boat storage capacity would make use of the crane cost prohibitive.

Elimination of the crane would require use of a forklift to transport the boats from the racks to the water. Use of a forklift would require a reduction in the building height, because a forklift loses stability and would not be able to support the load of boats at 70 feet. The structure height would be approximately 52 feet. In addition, the forklift would require more room to maneuver compared to a crane, and the building would have to be widened. The dry stack boat storage structure proposed in the RFP response is 310 feet by 182 feet and accommodates approximately 270 boats[38] as well as about 5,500 square feet of office, customer, and marine commercial space. These dimensions represent a larger footprint as compared to the proposed project, and would require the boat storage facility to be reoriented from the proposed north/south orientation perpendicular to Fiji Way to an east/west orientation parallel to Fiji Way, as depicted on Exhibit 6.6-1 – Landside Only Alternative. While the boat storage structure would not extend over the water, a docking system would still be required. The dock system would extend into Basin H approximately 190 feet on the westerly side and 130 feet on the easterly side. The docking system would be larger than the proposed dock, because in-water slips would be used to augment the number of available rental spaces within the structure, thereby taking up more surface area on the water and requiring more piles. Conversely, a docking system similar in size to that associated with the proposed project would require fewer piles, but would also accommodate significantly fewer boats.

This change in building width would reduce the view corridor required under the Marina del Rey LCP, which requires a 20% view corridor. The proposed project will provide approximately 50% of view corridor. This alternative would provide approximately 30% of view corridor, which would exceed the LCP requirement. Due to the size of the building, this alternative is unable to provide the view park and the Sheriff's Boatwright/Lifeguard facility and must locate the mast-up storage off-site. To provide all proposed project elements on site, a landside-only dry stack boat storage structure would have to be significantly smaller than the RFP response design and would only be able to accommodate approximately 200 boats[39].

[38] An analysis by BLUEWater Design Group estimates the potential boat storage capacity of a landside dry stack structure with the specifications proposed in the RFP response at 252 to 288 boats. A copy of the letter from BLUEWater Design Group is included in Appendix L of the DEIR.

[39] Assuming approximately 9,000 square feet for mast-up storage, 2,800 square feet for the Sheriff's Boatwright/Lifeguard facility, and 2,200 square feet for the Sheriff's boatwright yard, the area of the dry stack structure would have to be reduced approximately 27.5% to accommodate these additional project elements. A commensurate loss in boat storage capacity results in a capacity estimate of 200 boats.



Source: AC Martin Partners

Exhibit 6.6-1 – Landside Only Alternative

1. Aesthetics

This alternative would reduce the height of the building by one rack level, and the building would not extend over the bulkhead into Basin H as proposed. The reduction in height, while an aesthetics benefit, would not be sufficient to change vistas from any adjacent property or road into the marina. The building footprint would be greater, and reorientation of the building would result in a significant loss of view corridors, and the loss of the public promenade/view park. This alternative represents a more severe aesthetics impact because of the building bulk along Fiji Way, and the significant reduction of the view corridor, as compared to the proposed project.

2. Air Quality

The Landside Only Alternative would reduce air quality impacts incrementally with the reduction of boat and vehicle traffic due to the reduced boat storage capacity. These impacts have been determined to be under the thresholds of significance with the proposed project. Construction activity impacts would remain the same with this alternative as the proposed project. Therefore, this alternative would be marginally superior to the proposed project.

3. Biological Resources

The Landside Only Alternative would likely have the same or similar impacts to biological resources as the proposed project. Support piles for the over-water portion of the structure would be unnecessary; however, the additional docking system would require additional piles. The docking system would also take up more water area, but there would be a similar shading effect as with the proposed project. Therefore, impacts would be the same or somewhat greater under this alternative.

4. Geology and Soils

The proposed project includes foundation support that would strengthen the stability of the existing seawall. This support would still be required under this alternative. The amount of earthwork would be the same as with the proposed project. Therefore, impacts would be the same under the proposed project and this alternative.

5. Hazards and Hazardous Materials

The elimination of the over-water portion and the reduction in building height would not change impacts to hazards and hazardous materials. Best Management Practices during construction and long-term use would still be required, and the proposed facilities would still use cleaning solvents, oil, and paint in the daily operation of the dry stack boat storage structure and the Sheriff's Boatwright/Lifeguard facility (if provided as part of the alternative with reduced capacity of approximately 200 boats).

6. Hydrology/Water Quality

The Landside Only Alternative may increase pervious surface over the proposed project because of the larger building footprint. However, upgraded water quality and drainage facilities that are proposed for the project would still be installed. This would ensure that any water runoff from the site would not degrade water quality. There is no change to impacts in the area of hydrology/water quality.

7. Land Use and Relevant Planning

There would be no change in impacts to land use and relevant planning with this alternative. The proposed uses would remain the same. This alternative would require landside amendments to the LCP Land Use Plan and the Implementation Plan. However, as previously noted, an amendment to the Marina del Rey LCP was approved by the CCC on November 3, 2011, and by the County Board of Supervisors on November 29, 2011. The CCC is expected to approve the LCP amendment as a consent calendar item in early 2012, followed by a 60-day statute of limitations period. Final approval of the amended LCP would eliminate the amendments contemplated herein. However, there would be no change to the Water category, resulting in fewer amendments under this alternative.

8. Noise

The Landside Only Alternative would reduce mobile source noise impacts incrementally due to the reduction in the number of boat storage spaces. Operational impacts would remain the same for the dry stack boat storage structure and the Sheriff's Boatwright/Lifeguard facility (if provided by the alternative) with either the proposed project or the alternative. Temporary noise impacts from construction activities, including pile driving, would take place under the proposed project or this alternative, and ground-borne vibrations would occur under both scenarios. The proposed project includes mitigation measures to reduce noise impacts due to construction.

9. Public Services

Based on the footprint of the boat storage structure under this alternative, it is unlikely that the Sheriff's Boatwright/Lifeguard facility could be accommodated on-site. The building would have to be modified and the number of boat slips reduced to approximately 200, or the Sheriff's Boatwright/Lifeguard facility would have to be relocated within the marina. Impacts in the area of public services would be greater under this alternative when compared to the proposed project if the Sheriff's Boatwright/Lifeguard facility could not be accommodated on-site.

10. Recreation

There would be a reduction in the benefit of the proposed project in the provision of dry stack boat spaces. This alternative would provide approximately 270 dry stack boat spaces or 200 dry stack boat spaces if all project components were accommodated on-site. The proposed project would provide 345 dry spaces and 28 trailer spaces. Therefore, this alternative would still represent a net increase in boat slips within Marina del Rey, which is a positive benefit. However, the view park identified in the proposed project would be infeasible due to space constraints, resulting in a greater impact in the area of Recreation as compared to the proposed project.

11. Traffic and Transportation

The reduction in the number of boat slips under this alternative would decrease the amount of traffic to and from the site. Since the proposed project includes mitigation measures in the form of fees to provide road improvements, the only intersections that would be impacted would be mitigated to a less than significant level. A reduction in the amount of traffic with this alternative could potentially reduce impacts to the level where no fees are required. Improvements associated with the project may not be necessary or constructed. Therefore, this alternative would have less impact in the area of traffic.

12. Utilities

The project site is located in an urban environment where utilities are already provided. There is no impact related to utilities with either the proposed project or this alternative.

6.6.2 Attainment of Project Objectives

Decreasing the number of storage spaces in the dry stack boat storage structure and eliminating the over-water portion of the proposed project does not maximize the capacity of the site to provide up to 345 dry storage spaces. The increased building footprint and orientation would create a significant aesthetics impact with respect to building bulk, and the view corridor would be reduced from 50% to approximately 30%. In light of the elimination of wet slips in the marina over the past several years, and the trend to accommodate larger boats within fewer slips, the proposed project could provide replacement storage capability for boats displaced due to wet slip losses, as well as boats in the marina. However, the reduced number of storage spaces will not offer the same capacity as the proposed project. Therefore, this alternative fails to meet the basic goals and objectives of the project and is not considered a viable alternative with respect to providing the maximum amount of dry stack boat storage available on the site, while maintaining view corridors.

6.7 Project Alternative 3 – Reduced Building Height, Same Building Footprint

6.7.1 Description of Alternative

This alternative would provide the same building footprint as the proposed project, including the over-water portion of the structure. However, there would be a reduction in the height of the building from 81.5 feet at the top of the protective covering for the crane, to 75 feet, consistent with the Boat Storage land use category height limit. This height reduction would eliminate one level of storage from the dry stack boat storage structure. This would result in the loss of approximately 43 dry stack storage spaces, providing 332 total spaces as compared to 375 spaces (345 in the structure and 30 mast-up capable in the parking lot) under the proposed project.

1. Aesthetics

The reduction in building height alternative would reduce the aesthetics impacts of the project slightly, since the building would be one story lower than the proposed project. However, this height reduction would not change vistas from any adjacent properties or roads. The significant view corridors would remain the same, and the public would have access to the waterfront via the proposed promenade and view park. The aesthetics impacts would be substantially the same for the proposed project and this alternative.

2. Air Quality

As with Alternative 2, this alternative would reduce air quality impacts incrementally with the reduction in boat and vehicle traffic. Construction activity impacts would remain the same as with the proposed project. Therefore, this alternative would be marginally superior to the proposed project in terms of air quality impacts.

3. Biological Resources

This alternative would have substantially the same impacts to biological resources as the proposed project.

4. Geology/Soils

This alternative would have substantially the same impacts to geology/soils as the proposed project. The amount of earthwork would be the same and the need for structural support for the landside and the waterside portions of the structures would be the same.

5. Hazards/Hazardous Materials

This alternative would not introduce any additional hazards or hazardous materials to the project site other than those analyzed in the proposed project. Best Management Practices would be adhered to in order to minimize impacts for either the proposed project or this alternative. Impacts would be substantially the same.

6. Hydrology/Water Quality

No change in impacts to hydrology or water quality would occur with this alternative. The same amount of construction would occur as with the proposed project. The same erosion and storm water run-off controls would be enforced and implemented. Therefore, the impacts from this alternative would be identical to the proposed project.

7. Land Use and Relevant Planning

There would be no change in impacts to land use and relevant planning with this alternative. The proposed uses would remain the same. Therefore, the same amendments and permits would be required to allow construction of the project.

8. Noise

The Reduced Building Height, Same Footprint Alternative would reduce mobile source noise impacts incrementally with the reduction in the number of boats stored. Fewer vehicles would access the dry stack boat storage structure. Operational activity noise would remain the same with either this alternative or the proposed project. Temporary impacts from construction noise would also remain the same. The primary source of construction comes from demolition and grading. Both of these activities would still take place under this alternative. Pile driving activities would also still take place under this alternative. Ground-borne vibrations would still impact the surrounding uses. The proposed project includes mitigation measures to reduce noise impacts due to construction.

9. Public Services

There would be no change in impacts to public services with this alternative.

10. Recreation

This alternative would provide 43 fewer dry stack storage spaces. The proposed project would provide 345 dry spaces in the storage structure and 30 mast-up capable spaces in the parking lot. However, this alternative would still represent a net increase in boat spaces within Marina del Rey, which is a positive benefit.

11. Traffic and Transportation

Incremental reductions in the amount of traffic would occur with this alternative due to the decrease in boat storage spaces. However, the traffic analysis did not identify any impacts that could not be reduced through the payment of fees for road improvements in the traffic study area. A reduction in the amount of traffic with this alternative could potentially reduce impacts to the level where no fees are required. Therefore, improvements associated with the project may not be necessary or constructed.

12. Utilities

The project site is located in an urban environment where utilities are already provided. There is no impact related to utilities with either the proposed project or this alternative.

6.7.2 Attainment of Project Objectives

This alternative is not capable of attaining all of the basic project objectives. Reducing the storage capacity of the structure will provide fewer boat spaces and fewer recreational opportunities for boaters. Additionally, the reduction in spaces may impact the ability of the project operator to provide a crane for conveyance of boats to the water. The loss of 43 spaces in the dry stack boat storage structure may make the crane infeasible from a cost perspective. If the crane were no longer feasible, an over-water component would not be possible, and the project would lose even more spaces. Even if the crane were still economically feasible, the reduction of impacts from this alternative to air quality and traffic are minimal as compared with the benefit of providing additional dry stack boat storage. Therefore, this alternative would limit the County's goal of increasing the number of boat storage spaces in the marina.

6.8 Project Alternative 4 – Alternate Land Use, Public Facility

6.8.1 Description of Alternative

Under this alternative, the project site would be developed consistent with the LCP land use category of Public Facility. Uses permitted in the Public Facility category include libraries, museums, harbor administration, public utilities, and police and fire facilities. A height limit of 45 feet applies, "except for entrance displays, government offices, and theme towers which may not exceed 140 feet."[40] During the scoping process an alternate use of the site as a nature center was advanced for consideration. Assuming that a nature center would be similar to a museum, it would be a permitted use under the current Marina del Rey LUP.

[40] LUP, §C.8. p. 8-1

A nature center was suggested for this site due to the proximity to Area A of the Ballona Wetlands Ecological Reserve. No specific development proposal has been submitted for a nature center. This alternative was crafted in direct response to comments received during the scoping process, and the following description of the nature center is strictly based on public comments. This alternative assumes no change in the land use designation for the site; this alternative would not require an amendment to the LCP.

The nature center would be built on Parcel GG, in the current location of the County offices and the Sheriff's Boatwright/Lifeguard facility. The nature center would likely be 2 or 3 stories, with a maximum height of 45 feet. A waterfront promenade would be provided, allowing pedestrian access along the bulkhead. Public parking would continue to be provided on Parcel 52.

1. Aesthetics

This alternative would reduce the building height and footprint significantly, and development would be limited to Parcel GG. A significant view corridor would be provided over approximately 75% of the site because Parcel 52 would remain a parking lot. This alternative would move the public promenade from along Fiji Way to the waterfront. However, adjacent uses do not have waterfront access, so a continuous waterfront promenade cannot be created. The aesthetics impacts would be substantially lessened under this alternative as compared to the proposed project.

2. Air Quality

This alternative would generate air emissions from construction and vehicle traffic associated with the nature center. Construction emissions would likely be less than the proposed project, because the scope of construction activities would be reduced. Vehicle traffic would likely be similar to the proposed project, creating similar long-term air emissions. This alternative would have incrementally fewer air quality impacts when compared to the proposed project.

3. Biological Resources

The majority of impacts identified for biological resources are related to construction within Basin H creating turbid water conditions. This alternative would not include any waterside development. Impacts to biological resources would be lessened under this alternative as compared to the proposed project.

4. Geology/Soils

This alternative would have less impact in the area of geology/soils when compared to the proposed project. The amount of earthwork would likely be less, and the need for structural support for the landside structure would likely be reduced, because a nature center would not have the same load requirements as the boat storage structure.

Additionally, the project would not include a waterside component, and impacts to geology/soils would be reduced under this alternative.

5. Hazards/Hazardous Materials

The leaking underground storage tank that was identified in the Phase I Environmental Assessment has impacted soil and groundwater on Parcel GG. The County of Los Angeles is responsible for the remediation of this contamination. The contaminated soil would have to be removed from the site under any redevelopment alternative. However, unlike a boat storage facility, a nature center would not involve the daily use of potentially hazardous materials, including gasoline, paint, and solvents. Impacts in the area of hazards/hazardous materials would be less as compared to the proposed project.

6. Hydrology/Water Quality

This alternative would not include any construction on the waterside of the site. Therefore, construction impacts to water quality would be reduced. However, the same erosion and storm water run-off controls would be enforced and implemented under this alternative. Impacts from this alternative would be slightly less under this alternative as compared to the proposed project.

7. Land Use and Relevant Planning

There would be no impacts in the area of land use and relevant planning under this alternative. The nature center is allowed under the LUP, and an amendment to the LCP would not be required. However, a nature center would not be compatible with existing adjacent uses, such as boat storage, the public boat launch ramp, and boat repair/maintenance. In addition, the waterside parcel would be underutilized. A nature center does not need to be located immediately adjacent to the water. A more suitable location might be found within Ballona Wetlands and away from the waterfront.

8. Noise

Temporary noise impacts from construction noise would be less, assuming a shorter construction duration and a significant reduction in, or the total elimination of piles and pile-driving activities. Operational noise from a nature center would also be less than the boat storage facility. Noise impacts under this alternative would be less than noise impacts under the proposed project.

9. Public Services

The development of a nature center on the site would displace the existing County offices, lifeguard, and Sheriff's Boatwright/Lifeguard facility. Under the proposed

project, new facilities for the lifeguard and Sheriff's boatwright will be provided on-site, and the County offices will be moved to Parcel 49. Under this alternative a new site would need to be identified within the marina for the Sheriff's Boatwright/ Lifeguard facility. This new site would need to be located on the marina, and provide a dock for the Sheriff's boats. Impacts in the area of public services would be greater than the proposed project.

10. Recreation

A nature center would provide a recreational/educational opportunity to the public. However, a nature center would not achieve the top priorities identified in the LUP, which are "to maximize public boating facilities [and] to provide boating-related facilities and services for the boating public…"[41] A nature center would not have the same recreational benefit to the marina as the proposed project will have.

11. Traffic and Transportation

Traffic under this alternative is anticipated to remain generally the same as traffic under the proposed project. The traffic analysis did not identify any impacts that could not be reduced through the payment of fees for road improvements in the traffic study area. Impacts to traffic and transportation under this alternative would be relatively the same.

12. Utilities

The project site is located in an urban environment where utilities are already provided. There is no impact related to utilities with either the proposed project or this alternative.

6.8.2 Attainment of Project Objectives

This alternative would provide a land use that is consistent with the LUP, and no amendment would be required to the LCP. However, this alternative is not identified as a priority project under the LUP, and the land use would not be compatible with existing development in the immediate vicinity of the site. The development of the site as a nature center would result in more significant impacts in the areas of Public Services and Recreation. However, this alternative would reduce impacts in the areas of Aesthetics, Biological Resources, and Geology/Soils. This alternative is not capable of attaining the basic project objective of providing dry stack boat storage within the marina.

[41] LUP, §C.8. p 8-2

6.9 Environmentally Superior Alternative

Of the Alternatives evaluated, the No Project Alternative would be the most successful at reducing the level of significant impacts associated with the proposed project. As required by CEQA Guidelines §15126.6(e)(2), if the No Project Alternative is the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

The Alternate Land Use, Public Facility Alternative would reduce significant impacts created by the proposed project. While this alternative would result in more significant impacts in the areas of Public Services and Recreation, impacts in the areas of Aesthetics, Biological Resources, and Geology/Soils would be less with this alternative than with the proposed project.

7. Summary of Cumulative Impacts

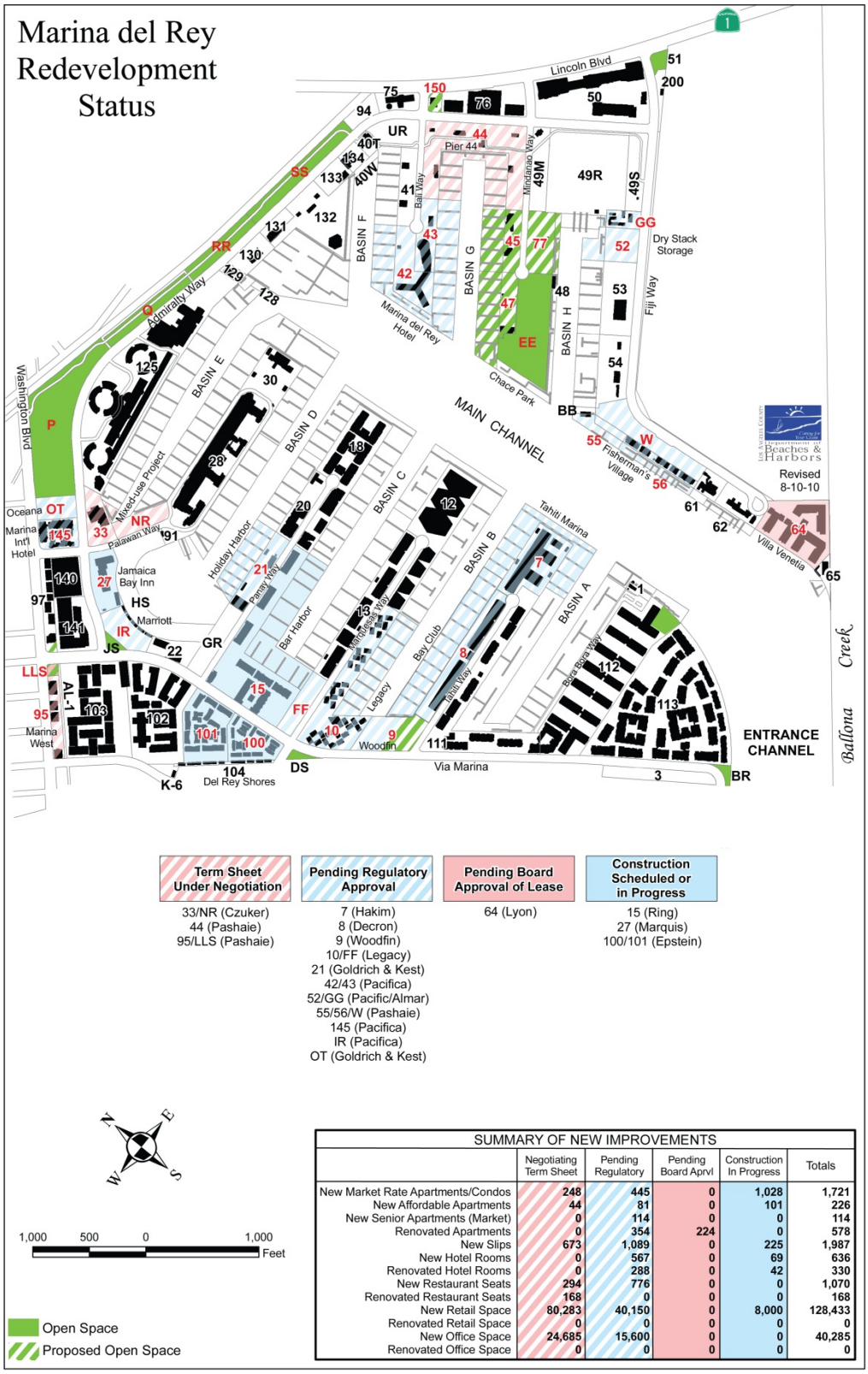
CEQA requires the consideration of cumulative impacts. Defined, these impacts are "two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines §15355).

A number of redevelopment projects are at various stages of planning, approval, and construction in Marina del Rey.[42] These projects have the potential to have significant impact on the environment. These projects were taken from two sources: the County of Los Angeles Department of Beaches & Harbors for projects within Marina del Rey, and the Traffic Impact Analysis, which considered projects from within Marina del Rey and the surrounding area. The projects Marina del Rey considered for this analysis are shown on Exhibit 7.1-1 – Marina del Rey Redevelopment Status. A list of projects within Marina del Rey and the surrounding area is included as Table 7.1-1, Location and Description of Related Projects. In addition, the number of slips has been increased at Burton Chace Park.

At least seven known projects that have been approved or are pending regulatory review have the potential to create short-term construction impacts. Those projects include Fisherman's Village, The Shores, Woodfin, Holiday Harbor, Bar Harbor (approved), and Legacy. Waterside development within Basins B, C and D, along with the main channel, will be affected during the construction of these projects. While these projects are on different schedules, there is a chance that the Boat Central project, taken with the other known projects, could incrementally contribute significant air emissions, resulting in a cumulative impact to air quality. The projects could also create water turbidity and result in a cumulative impact on biological resources.

Two projects are in close proximity to the Boat Central site on Fiji Way: the Fisherman's Village project located approximately one-quarter mile southwest of the Boat Central project site along Fiji Way, and contemplated refurbishment of the Villa Venetia apartments located at the terminus of Fiji Way. The Mitigated Negative Declaration for Villa Venetia was certified on September 14, 2010. If construction for the two projects and Boat Central were to coincide or overlap, Fiji Way would be significantly affected, and would lead to cumulative construction impacts in the areas of noise, recreation, and transportation and traffic. Noise impacts would be related to the operation of heavy equipment and pile driving during construction. Recreation impacts may occur if the South Bay bike path is disrupted. Transportation and traffic impacts would include impacts to intersection operation at Lincoln Boulevard intersections with Fiji Way, Mindanao Way, and Bali Way, vehicles traversing Fiji Way, and the displacement of public parking. Taken together, these impacts are considered cumulatively considerable.

[42] Marina del Rey Redevelopment Projects, Descriptions and Status of Regulatory/Proprietary Approvals as of February 11, 2009. http://beaches.lacounty.gov/BandH/Marina/dcbtablefeb09.pdf. [date accessed March 19, 2010].



SUMMARY OF NEW IMPROVEMENTS	Negotiating Term Sheet	Pending Regulatory	Pending Board Aprvl	Construction In Progress	Totals
New Market Rate Apartments/Condos	248	445	0	1,028	1,721
New Affordable Apartments	44	81	0	101	226
New Senior Apartments (Market)	0	114	0	0	114
Renovated Apartments	0	354	224	0	578
New Slips	673	1,089	0	225	1,987
New Hotel Rooms	0	567	0	69	636
Renovated Hotel Rooms	0	288	0	42	330
New Restaurant Seats	294	776	0	0	1,070
Renovated Restaurant Seats	168	0	0	0	168
New Retail Space	80,283	40,150	0	8,000	128,433
Renovated Retail Space	0	0	0	0	0
New Office Space	24,685	15,600	0	0	40,285
Renovated Office Space	0	0	0	0	0

Source: County of Los Angeles website

Exhibit 7.1-1 – Marina del Rey Redevelopment Status

Table 7.1-1 Location and Description of Related Projects

Cumulative Project Location/Address	Land Use	Size
1. 115 Lincoln Boulevard	Shopping center addition	8,800 SF
2. 1430 Lincoln Boulevard	Retail Apartment	197,000 SF 280 DU
3 2005 Lincoln Boulevard	Gas station w/convenience store	6 pumps
4. 3826 Grand View Boulevard	Mar Vista Post Office	25,656 SF
5. 12700 Braddock Drive	Warehouse Office (less existing laundry building)	134,557 SF 1,357 SF (58,323 SF)
6. 12011 Venice Boulevard	Fast-food restaurant w/drive-thru	1,623 SF
7. 11611 Washington Place	Senior day care facility (less existing furniture manufacturing)	20 DU (9,970 SF)
8. 4061 Grand View Boulevard	Assisted living facility	70 DU
9. 4055 Redwood Avenue	Office Mini-warehouse (less existing mini-warehouse)	22,000 SF 20,000 SF (42,000 SF)
10. 4141 Lincoln Boulevard	Retail/motorcycle/office Café Restaurant	42,270 SF 1,000 SF 8,200 SF
11. 4500 Via Marina	Apartment expansion	120 DU
12. N/W corner Princeton Drive/ Carter Avenue	Apartment (less existing light manufacturing) (less existing office) (less existing auto service/repair)	298 DU (24,000 SF) (21,600 SF) (40,000 SF)
13. 2100 Abbot Kinney Boulevard	Office	15,180 SF
14. 514-586 Washington Boulevard between Via Marina/Palawan Way (Parcel 97)	Retail (less existing retail)`	6,236 SF (5,750 SF)
15. South side of Washington Boulevard between Via Marina/Via Dolce (Parcel 95)	Retail Restaurant Drive-In Bank Office (less existing office) (less existing restaurant) (less existing drive-in bank)	15,250 SF 405 seats 4,250 SF 7,888 SF (9,180 SF) (165 seats) (7,500 SF)
16. Del Rey Shores (Parcels 100/101)[43]	Apartment (less existing apartment)	544 DU (202 DU)
17. 4333 Admiralty Way	Condominium	600 DU
18. East side of Via Marina (Parcels FF and 10R)	Apartment Boat dock slip (less existing apartment) (less existing boat dock)	526 DU 161 slips (136 DU) (184 slips)
19. East side of Via Marina between Panay Way/Marquesas Way (Parcels 12, 15)	Apartment Low income senior apartment Retail Commercial Boat dock slip	940 DU 82 DU 4,000 SF 6,000 SF 439 slips
20. North side of Panay Way (Parcel 20)	Apartment Commercial	100 DU 6,885 SF

[43] Traffic Impact Study for the Jamaica Bay Inn Project, prepared by LLG-Pasadena (revised January 17, 2007).

Table 7.1-1 Location and Description of Related Projects

Cumulative Project Location/Address	Land Use	Size
21. 13900 Panay Way (Parcel 18)	Apartment Congregate care facility	65 DU 75 DU
22. Northwest corner of Admiralty Way/Palawan Way (Parcel 140)	Apartment (less existing apartment)	179 DU (64 DU)
23. The Village at Playa Vista Project south of the intersection of Jefferson Boulevard/Westlawn Avenue	Office Apartment Retail Community-serving uses	175,000 SF 2,600 DU 150,000 SF 40,000 SF
24. Northeast corner Tahiti Way/Via Marina	Hotel Public park	288 rooms 2 acres
25. Jamaica Bay Inn[44]	Hotel expansion	69 rooms
26. 4445 Admiralty Way[45]	Congregate care facility Retail Marine commercial office (less existing health club)	114 DU 5,000 SF 6,000 SF (6,000 SF)
27. 13737 Fiji Way[45]	Hotel Restaurant Retail Office Boat dock slip (less existing retail/commercial) (less existing restaurant) (less existing boat dock slip)	132 rooms 1,230 seats 24,250 SF 5,200 SF 26 slips (12,984 SF) (16,149 SF) (17 slips)
28. Tract No. 67206 5550 Grosvenor Boulevard[46]	Apartment	218 DU
29. Villa Venetia 13900 Fiji Way[46]	Apartment	216 DU
30. 13953 Panay Way[46]	Yacht club	6,025 SF

These projects were also taken into consideration to assess impacts to infrastructure, services, and other environmental areas, as discussed in each topical section below. Cumulative impact conclusions are based on two key criteria:

1. Level of project specific impact. If the project specific impact is less than significant, there is no contribution to any cumulative impact.
2. Consideration of non-existing conditions and other cumulative projects. If there is a serious existing problem such that any additional amount of impact, when compared to the pre-existing conditions, would be significant, any significant amount of project impact would contribute to a cumulative impact.

[44] Traffic Impact Study for the Jamaica Bay Inn Project, prepared by LLG-Pasadena (revised January 17, 2007)

[45] Traffic Impact Study for the Neptune Marina Apartments and Anchorage/Woodfin Suites Hotel and Timeshare Resort Project, Administrative Draft EIR, prepared by Crain & Associates (July 2007)

[46] County of Los Angeles Department of Regional Planning

Environmental Issue/Topic	Project Specific Impact	Conclusion Regarding Cumulative Impacts
Aesthetics	Implementation of mitigation measures will reduce project impacts in all aesthetic areas, except for building bulk and mass. The proposed dry stack boat storage structure would be higher and larger than existing land uses in the immediate project area and would result in an unavoidable, significant environmental effect.	No cumulative impacts.
Air Quality	Implementation of the mitigation measures would result in additional reductions in PM_{10} and $PM_{2.5}$ construction emissions. Long-term emissions associated with the project are not expected to exceed the significance thresholds. The project will not result in a significant air quality impact, except for GHG emissions, which will be significant and unavoidable in the short-term and long-term.	The proposed project, in conjunction with growth and development within the SCAB, would hinder conformance with the regional AQMP. Because the SCAB has been classified as a non-attainment air basin for compliance with the federal Clean Air Act, the proposed project will have an incremental increase in air emissions. Specifically, the project will contribute greenhouse gasses to the environment. Even a small amount of greenhouse gasses can negatively impact the environment, and contribute to climate change. The project will result in cumulative air quality impacts.
Biological Resources	Project impacts from construction and operation of the project can be mitigated to a level of insignificance. Mitigation measures are required for temporary impacts to species resulting from turbidity; however, no long-term impacts were identified. No unavoidable significant impacts were identified for the project.	Cumulative effects associated with biological resources resulting from the proposed project involve the potential for short-term increase in turbidity due to project construction. If a number of projects are constructed at or around the same time, the construction impacts, taken together, could be cumulatively considerable.
Geology and Soils	The geotechnical investigation contains several recommendations pertaining to liquefaction and lateral spreading on-site. With incorporation of mitigation measures, the proposed structure will be safe against hazards from landslide, settlement or slippage and the proposed structure and grading will not adversely affect the geologic stability of property outside of the site. Project impacts will be less than significant.	No cumulative impacts.
Hazards and Hazardous Materials	Implementation of mitigation measures above would reduce the impacts from hazards and hazardous materials to a less than significant level.	No cumulative impacts.
Hydrology and Water Quality	The project has the potential to degrade water quality during project construction. Implementation of mitigation measures and project design features would reduce impacts to below a level of significance. Additionally, the addition of permeable surface to the site, and the inclusion of new water quality filtration devices, will provide a net benefit to water quality over the current condition.	No cumulative impacts.
Land Use and Planning	The project will require amendments to the Marina del Rey Specific Plan and LCP. The provision of additional boat storage capacity is a stated goal of the LCP. No mitigation is required, and project impacts will be less than significant.	No cumulative impacts.

Environmental Issue/Topic	Project Specific Impact	Conclusion Regarding Cumulative Impacts
Noise	Some short-term construction impacts are significant and unavoidable. Impacts include: Temporary increases in the ambient noise of more than 3 dB at commercial properties and in Area A; noise levels in excess of 60 dB(A) at Area A during construction, if construction occurs during nesting/breeding season. These impacts are temporary and will cease upon project completion. No long term significant and unavoidable impacts will occur with project implementation.	Temporary construction noise is cumulatively considerable.
Public Services	The project will require the relocation of the County office trailers from the site. County offices will be relocated to Parcel 49. No significant impacts will occur.	No cumulative impacts.
Recreation	No unavoidable significant recreation impacts are associated with the project. The project would increase opportunities for recreational boaters.	No cumulative impacts.
Transportation and Traffic	The proposed project is anticipated to generate approximately 125 daily trips, with 18 trips produced in the AM peak hour and 18 trips produced in the PM peak hour on a typical weekday. All six key study intersections in the County of Los Angeles and the City of Los Angeles are expected to continue to operate at LOS D or better during the AM and PM peak hours in year 2011. All project impacts will be mitigated to below a level of insignificance. Boat Storage Parking: The County requires 0.5 spaces per dry land storage space, but does not have parking standards for this specific type of facility. Using accepted industry standards, Linscott, Law & Greenspan estimated that project parking needs could be supported with 103 parking spaces (1 space per 4 storage spaces) or, in a conservative case, by 134 parking spaces (1 space per 3 storage spaces). Accordingly, providing 135 surface parking spaces will result in a surplus of 32 spaces using the design ratio and a surplus of 1 space using the conservative case ratio for a dry stack boat storage structure. However, a parking permit will be required to allow the proposed 0.36 parking ratio and a valet parking plan. Through implementation of mitigation measures, no significant impacts will occur. Temporary Parking: Parcel 52 is currently identified as Temporary Parking, and the site operates as a free parking lot. The project will displace this parking. Public parking is available in Fisherman's Village to the southwest and can also be accommodated in any of the other parking areas throughout the marina. The project will contribute to operational deficiencies at the Lincoln Boulevard intersections of Fiji Way, Mindanao Way, and Bali Way. Mitigation measures will reduce impacts to below a level of significance.	The project will result in an incremental increase in traffic and contribute to roadway operation deficiencies. Fair share contributions towards the project's cumulative impacts will reduce impacts to a level of insignificance.
Utilities and Service Systems	Implementation of the proposed project would not result in significant adverse impacts. Mitigation measures have been identified to ensure coordination with service providers and minimize potential disruption during construction.	No cumulative impacts.

The proposed project will produce incremental impacts, which taken with other projects, may be cumulatively considerable.

8. Growth-Inducing Impacts

CEQA requires the consideration of growth inducing impacts. Pursuant to CEQA Guidelines §15126.2(d), such impacts are ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects that would remove obstacles to growth. In addition, growth inducing impacts could be realized if the project would encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

Potential growth inducing impacts have been discussed throughout this Draft EIR, but are brought to focus under this section. Marina Del Rey is nearly built-out, but significant redevelopment projects are ongoing. Project impacts would be considered growth inducing if they result in one of the following.

- Extension of urban services or infrastructure into a previously unserved area;
- Removal of a major obstacle to development and growth
- Establishes precedent setting action

The proposed project site is located within an urban setting. The project will not extend utilities and/or infrastructure into a previously unserved area. Furthermore, the proposed project will not remove a major obstacle to development and growth. Marina del Rey is currently undergoing significant redevelopment, largely based on the County of Los Angeles's actions to lease the property within the marina for a variety of private and public uses.

The project may establish a precedent-setting action, inducing future growth or redevelopment trends. The project includes a unique development feature – an over-water component. The dry stack boat storage structure will extend over the bulkhead, and over the water into Basin H. The structure will extend 97 feet over the bulkhead on the western side of the structure, and 45 feet over the bulkhead on the eastern side of the structure, as shown on Exhibit 4.3-1 – Proposed Site Plan (page 4-11).

The over-water feature, specifically the extension of the non-habitable boat storage structure over the bulkhead, is permitted. Currently, there are no structures within the marina that extend over the bulkhead in the way that the boat storage structure is proposed. In addition, there are no structures that extend over the bulkhead nearly 100 feet into the water. However, there are several structures in the marina that extend over the bulkhead.

Existing over-water structures in the marina include a fuel facility, office-type facility, boater facilities, cranes, loading platforms, a conference facility, and a row house at the southwest corner of Basin H utilized by Loyola Marymount University.

The over-water feature includes three elements which should be examined to answer the question of whether the project is precedent-setting including:

1. The bridging of the structure over the seawall
2. The placement of the structure over the water
3. The scale of the structure (i.e., height and massing)

With respect to the bridging element, at least three structures in the marina currently bridge the seawall including boat repair lift ramps that bridge the southern seawall of Basin H. The longest of these ramps extends nearly 100 feet into the water. Similar to the proposed project, these existing structures bridge the seawall to facilitate the transfer of boats to and from the water. The proposed project would not be considered precedent setting with respect to the bridging element because there are at least three structures within the marina which already contain this feature.

Next, the placement of structures over the water is seen throughout the marina. Generally, these structures are marina support and or boating-related uses as described above and are habitable buildings, intended for human occupancy. These existing uses are to be distinguished from the dry stack boat storage structure, which is non-habitable. The proposed project would not be considered precedent setting with respect to the placement of a structure over the water, whether it is habitable or non-habitable, because several examples of this already existing within the marina.

In terms of building scale, while multi-story buildings are found throughout Marina del Rey, the dry stack boat storage structure averages over 70 feet in height and would be taller than other buildings in the immediate vicinity of the project site. While the height of the dry stack boat storage structure is consistent with the regulations contained within the Marina del Rey Specific Plan, the project would introduce a significant new visual feature into the area and would be the largest over-water structure in the marina, as discussed in detail in Section 5.1, Aesthetics, herein. It is the scale of the structure which may be considered a precedent setting action.

The approval of an over-water structure of this height and mass could encourage over-water development proposals for boat storage or other similar uses which represents a new design component within Marina del Rey. This is especially the case as technology improves, and efficiencies in land use and design are sought. Therefore, the proposed project may result in Growth Inducing Impacts as they pertain to the scale of the over-water component of the project. The proposed project will not result in any other Growth Inducing Impacts.

9. Inventory of Mitigation Measures

AE-1 Prior to issuance of building permits, a Final Landscape Plan for the project shall be approved by the County of Los Angeles Department of Regional Planning. The Final Landscape Plan shall include drought-tolerant species to the maximum extent feasible, and shall prohibit invasive species such as Mexican fan palms.

AE-2 After completion of the project and landscaping installation, the project applicant shall ensure that the landscaping/planting within the view corridors between the bulkhead and Fiji Way will be pruned on a regular basis for the life of the project to ensure that a view will remain between the vehicles and the trees in the parking lot.

AE-3 Prior to the issuance of a Certificate of Occupancy, the project applicant shall ensure that all exterior lighting in the parking lot shall be designed and located so that all direct rays are confined to the property. Lighting shall be designed to minimize visibility of light sources by directing lighting on-site and not illuminating areas outside property boundaries.

AQ-1 During construction, the Applicant shall ensure that standard construction practices as set forth in the SCAQMD Handbook shall be implemented.

AQ-2 During construction, the Applicant shall ensure that all construction equipment is properly serviced and maintained in good operating condition to reduce emissions. The SCAQMD requires that fuel injection timing be retarded two degrees from the manufacturer's recommendation and use high-pressure injectors.

AQ-3 During construction, the Applicant shall ensure that low emission mobile construction equipment is used (replace diesel-powered equipment with gasoline-powered equipment), where feasible, during the preparation, grading, excavation, and construction of the proposed project components.

AQ-4 During construction, the Applicant shall ensure that proposed project-specific sites are watered and that construction trucks pass through a shaker grate to remove excess dirt prior to exiting the site.

AQ-5 During construction, the Applicant shall ensure that when soil is transported the operator: 1) employs water to moisten earthen surface prior to disturbance and immediately after disturbance; 2) controls runoff so it does not saturate the surface of unpaved haul roads and cause track-off; and 3) employs watering as an emergency measure during high wind events to stabilize active dust surfaces including but not limited to soil piles, unpaved roads and unpaved parking areas.

AQ-6 During construction the Applicant shall ensure that water-wetting methods and soil-binders are used on exposed soil stockpiles, unpaved roads, and unpaved parking areas. Active grading areas shall be watered at least two times each workday, as needed, to prevent visible plumes from exiting the project site.

AQ-7 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, nontoxic chemical soil stabilizers such as Soil Sement® are applied, according to the manufacturer's specification, to all inactive construction areas, defined as previously graded areas, which are inactive for 96 hours or more.

AQ-8 During construction, the Applicant shall ensure that during site preparation, grading, excavation and construction, public streets are swept if silt is deposited on these roads from construction activities within the project site.

AQ-9 During construction, the Applicant shall ensure that site preparation, grading, excavation, and construction operations are suspended when wind speeds exceed 25 miles per hour.

AQ-10 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, low sulfur fuel is used for stationary construction equipment.

AQ-11 During construction, the Applicant shall ensure that during site preparation, grading, excavation, and construction, on-site power sources are used rather than temporary diesel or gasoline ICE generators when feasible.

AQ-12 During construction, the Applicant shall ensure that low VOC coatings, solvents, and asphalt be used where feasible.

AQ-13 During construction and operation, the Applicant shall ensure that idling of delivery trucks shall be kept to a minimum and, where feasible, should be limited to no longer than five minutes.

AQ-14 During operation, the facility operator shall ensure that idling of boats at the queuing dock shall be limited to no longer than five minutes.

BR-1 Prior to project initiation, the project applicant shall hire marine contractors that are professionally capable to employ the methods and materials necessary to contain contaminants within an aquatic work area, and to mitigate the potential escape of contamination to areas outside project boundaries.

BR-2 During landside construction, the site facilities manager shall ensure that contractors are prepared within one hour to distribute (stored) straw waddles around the work area in the event that unexpected runoff, construction debris, and contaminated flows occur.

BR-3 During project construction the site facilities manager shall ensure that debris and trash are disposed of in covered trash containers on land and on the

work barge and that the debris and trash are disposed of at the end of construction each day.

BR-4 During project construction the site facilities manager shall prohibit and preclude the discharge of any hazardous materials into Marina del Rey waters.

BR-5 During project construction, the site facilities manager shall deploy adequate silt curtains and booms around the work barge and pile removal and emplacement operations, to minimize the spread of turbid waters, sediments, and floating debris outside the project boundaries.

BR-6 During project construction, the site facilities manager shall ensure that placement and storage of construction materials, equipment, debris, and waste products will be at locations that are not subject to wave, wind, or rain erosion and runoff dispersion.

BR-7 After completion of construction, applicant shall ensure that any and all construction material shall be removed from the site within ten days and relocated to or disposed of at an appropriate off-site location.

BR-8 During project construction the site facilities manager shall ensure that placement or storage of machinery and construction materials not essential to making project improvements shall be prohibited at all times in subtidal and intertidal zones.

BR-9 During project construction the site facilities manager shall ensure that divers will be deployed to recover non-buoyant debris discharged into coastal/marina waters as soon as possible after the loss.

BR-10 Throughout all phases of the project, the site facilities manager shall ensure that sand bags will be placed landside around drainage inlets to prevent runoff and sediment transport into the surrounding harbor.

BR-11 Prior to commencement of project construction, the applicant shall ensure that at least one pre-construction meeting is held between the developer (or applicant's representative), the project's general contractor, and the ecological monitor. This meeting shall be held for the purposes of reviewing and agreeing to procedural guidelines and best management practices to protect biological resources.

BR-12 Throughout the construction process the site facilities manager shall dispose of all demolition and construction debris at an appropriate, off-site, and secure location.

BR-13 During construction, project applicant shall be required to comply with all conditions of the U.S. Army Corps of Engineers Section 404 permit related to fill of coastal waters.

BR-14 Throughout the construction process the site facilities manager shall maintain on-site an operational fitted and rigged outfit of silt curtains and booms to contain turbid conditions and construction-related floating debris.

BR-15 Throughout the construction process the site facilities manager shall ensure that floating booms will be used to contain debris discharged into coastal waters. Any debris discharged shall be removed as soon as possible but no later than the end of each day of construction.

BR-16 Throughout the construction process the site facilities manager shall ensure that erosion control/sedimentation best management practices shall be used to control sedimentation impacts to coastal waters during construction. During construction, the site facilities manager shall ensure that sand bags are placed around drainage inlets to prevent runoff and sediment transport into Marina del Rey.

BR-17 Prior to construction, the project applicant shall ensure that a pre-construction eelgrass survey is conducted. Upon project completion, the project applicant shall ensure that a post-construction eelgrass survey is conducted. The project applicant shall ensure that the surveys include the project area for the purpose of determining whether eelgrass is present. Those that conduct the surveys shall ensure that the surveys are consistent with the Southern California Eelgrass Mitigation Policy (SCEMP) and that reports are submitted to the appropriate resource agencies.

BR-18 Prior to project construction, the project applicant shall ensure that a pre-construction *Caulerpa taxifolia* survey is conducted 30 to 90 days prior to construction efforts. After project completion, the project applicant shall ensure that a post-construction *Caulerpa taxifolia* survey is conducted within 30 to 90 days after project completion. Those who conduct the surveys shall ensure that the surveys are consistent with the Southern California Eelgrass Mitigation Policy.

G-1 Prior to construction, the project manager shall ensure that an indicator pile program will be performed prior to proceeding with pile installation and casting of the production piles.

G-2 Prior to construction, the project manager shall ensure that measurements shall be made during the indicator pile program to quantify the magnitude of the vibration and to permit changes in the pile driving procedures before the start of the production pile installation.

G-3 Prior to construction, the project manager shall ensure that vibration measurements are made during the indicator pile program and that those measurements are made initially from piles installed near the center of the site or at the greatest distances from the existing structures.

G-4 Prior to construction, the project manager shall ensure that vibration measurements made during the indicator pile program are taken using a

portable seismometer connected to triaxial geophones placed on the ground surface. The geophones should be spaced at 50-foot intervals at distances between 50 and 200 feet from the pile being driven.

G-5 During construction, the project manager shall ensure that vibrations from the pile driving be compared to the specified damage criteria (0.2 inches per second). If the measurements exceed the allowable criteria, the project manager shall ensure that measures are taken to reduce distress (measures could include the use of hydraulic hammers in lieu of diesel hammers and pre-drilling the pile locations).

G-6 During construction, the project manager shall ensure that measurements are taken during the pile driving to monitor the effects on the existing structures.

G-7 During construction, the project manager shall ensure that, during pile driving, vibration measurements are taken adjacent to the existing buildings during pile driving to confirm the procedures established during the indicator pile program.

G-8 During construction, the project manager shall ensure that, in the event old oil wells are encountered, they will be reported to the State of California, Division of Oil and Gas (CDOG) and properly abandoned in accordance with the current CDOG requirements.

G-9 During construction, the project manager shall ensure that the liquefaction and lateral spreading potential is addressed by: a) construction of a supplemental supporting system within the soils behind the sea wall to confine the soils from potential lateral movement, or b) improving the supporting characteristics of the liquefaction-susceptible soils with a ground modification technique.

G-10 During construction, the project manager shall ensure that foundations extend through the fill and estuary deposits and into the underlying dense sand and gravel on-site, and floor slabs on grade will need to be structurally supported.

G-11 During construction, the project manager shall ensure that the boatwright/lifeguard building is supported on pile foundations and that the foundation-level of the building consists of a continuously reinforced mat foundation supported on piles.

G-12 During construction, the project manager shall ensure that soil-cement columns are installed between the existing sea wall and the dry stack boat storage structure.

G-13 During construction, the project manager shall ensure that the soil-cement columns are installed through the liquefiable deposits and into the dense sand and gravel.

G-14 During construction, the project manager shall ensure that foundations for the proposed boat storage structure extend through the existing fill and estuary deposits and into the underlying dense sand and gravel.

G-15 During construction, the project manager shall ensure that a field representative from Van Beveren and Butelo (or another qualified geotechnical firm) observe the condition of the final subgrade soils immediately prior to slab-on-grade construction, and, if necessary, perform further density and moisture content tests to determine the suitability of the final prepared subgrade.

G-16 During construction, the project manager shall ensure that retaining walls are designed to resist hydrostatic pressures or are provided with a drain pipe or weep holes. The drain could consist of a 4-inch-diameter perforated pipe placed with perforations down at the base of the wall. The pipe should be sloped at least 2 inches in 100 feet and surrounded by filter gravel.

During construction, the project manager shall ensure that the filter gravel meets the requirements of Class 2 Permeable Material as defined in the current State of California, Department of Transportation, Standard Specifications. If Class 2 Permeable Material is not available, ¾-inch crushed rock or gravel separated from the on-site soils by an appropriate filter fabric can be used. The crushed rock or gravel should have less than 5% passing a No. 200 sieve.

G-17 During construction, the project manager shall ensure that cantilevered retaining walls are built to withstand the recommended earth pressure and resist any applicable surcharges due to storage traffic loads.

Additionally, during construction the project manager shall ensure that walls adjacent to streets or other areas subject to vehicular traffic are designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal vehicular traffic.

During construction, the project manger shall ensure that retaining walls more than 12 feet high should be designed to support a seismic active pressure.

G-18 During construction, the project manager shall ensure that the base course conforms to requirements of Section 26 of State of California Department of Transportation Standard Specifications (Caltrans), latest edition, or meets the specifications for untreated base as defined in Section 200-2 of the latest edition of the Standard Specifications for Public Works Construction (Green Book). During project construction the project manager shall ensure that the base course is compacted to at least 95%.

G-19 During construction, the project manager shall ensure that the existing fill soils are excavated and replaced as properly compacted fill and that all

required fill is uniformly well compacted and observed and tested during placement.

G-20 During site preparation, the project manager shall ensure that after the site is cleared and any existing fill soils are excavated as recommended, the exposed natural soils are carefully observed for the removal of all unsuitable deposits. During site preparation, the project manager shall also ensure that exposed soils are scarified to a depth of 6 inches, brought to near-optimum moisture content, and rolled with heavy compaction equipment.

During site preparation, the project manager shall ensure that at least the upper 6 inches of the exposed soils are compacted to at least 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction.

G-21 During construction, the project manager shall ensure that excavations deeper than about 2 feet are sloped back at 1:1 (horizontal to vertical) or shored for safety. Unshored excavations shall not extend below a plane drawn at 1½:1 extending downward from adjacent existing footings.

During project construction, the project manager shall ensure that excavations are observed by personnel of Van Beveren and Butelo (or another qualified geotechnical firm) so that any necessary modifications based on variations in the soil conditions can be made. The project manger shall ensure that during construction all applicable safety requirements and regulations, including OSHA regulations, are met.

G-22 During construction, the project manager shall ensure that any required fill is placed in loose lifts not more than 8 inches thick and compacted to at least 90% of the maximum density as determined by the ASTM D1557 method of compaction. During project construction, the project manager shall ensure that moisture content of the on-site soils at the time of compaction varies by no more than 2% below or above optimum moisture content.

G-23 During site preparation, the project manager shall ensure that all required basement and retaining wall backfill is mechanically compacted in layers and that flooding is not be permitted and that exterior grades be sloped to drain away from the foundations to prevent ponding of water.

G-24 During site preparation, the project manager shall ensure that any utilities supported within the backfill are designed to accept differential settlement, particularly at the points of entry to the structure and that provision is made for some settlement of concrete walks supported on backfill.

G-25 During site preparation, the project manager shall ensure that cobbles larger than 4 inches in diameter are not used in the fill. The project manager shall ensure that any required import material consists of relatively non-expansive soils with an expansion index of less than 35 and that imported materials

contain sufficient fines (binder material) so as to be relatively impermeable and result in a stable subgrade when compacted.

Additionally, during site preparation, the project manager shall ensure that all proposed import materials are approved by personnel from Van Beveren and Butelo (or another qualified geotechnical firm) prior to being placed at the site.

- Observe installation of the soil-cement columns.
- Observe the exposed subgrade in areas to receive fill to check that the desired excavation has been achieved and that suitable soils are exposed.
- Observe the fill for uniformity during placement.
- Test the compacted fill for field density and compaction to determine the percentage of compaction achieved during backfill placement.
- Observe the indicator pile installation, the performing of pile load tests and the installation of the production piles.

G-27 Prior to commencement of grading of the site, the project manager shall ensure that the governmental agencies having jurisdiction over the project are notified prior to commencement of grading so that the necessary grading permits can be obtained and arrangements can be made for required inspection(s). Additionally, prior to commencement of site grading, the contractor shall be familiar with the inspection requirements of the reviewing agencies and the content of the Geotechnical Investigation by Van Beveren and Butelo.

HH-1 Prior to issuance of building permit, applicant shall submit for review and approval to the Los Angeles County Fire Department, plans for an on-site automated fire suppression system for the dry stack boat storage structure.

HH-2 Prior to construction of a fuel tank facility, the project applicant shall obtain clearance from all relevant agencies for the placement and installation of the fuel tank, including RWQCB, the Department of Public Works, and the County Fire Department.

HH-3 Prior to demolition of existing buildings on the site, the project applicant shall ensure that an inspection is performed by a qualified asbestos inspector. If asbestos is present, the applicant shall be required to ensure safe removal and disposal of such materials to a designated disposal site.

HH-4 During project construction and operation, the project applicant shall ensure that best management practices (BMPs) will be implemented to reduce the project's impact on the environment, to prevent the leakage of any fuel and to reduce the potential occurrence of upset or accident.

HH-5 During operation the project applicant shall ensure that the storage and disposal of any hazardous materials related to the operation of the indoor

boat repair facility (such as paint, lubricants, cleaners and similar maintenance products) is in accordance with the County of Los Angeles Health Hazardous Materials Division and the Los Angeles County Department of Public Works/Waste Management requirements.

HH-6 During operation the Sheriff's Department shall ensure that the storage and disposal of any hazardous materials related to its operations (such as paint, lubricants, cleaners and similar maintenance products) is in accordance with the County of Los Angeles Health Hazardous Materials Division and the Los Angeles County Department of Public Works/Waste Management requirements.

HH-7 Prior to operation of the facility, the project applicant shall verify that the project site has been fully remediated by the County of Los Angeles.

HH-8 During project operation, the site facilities manager shall ensure that the fuel pump shall be accessed by trained personnel only, and not the general public.

WQ-1 After project completion the site facilities manager shall be responsible for operation and maintenance activities associated with vegetated swales on-site.

WQ-2 After project completion the site facilities manager shall be responsible for monthly (or more frequently as needed) visual facility inspections of vegetated swales.

WQ-3 After project completion the site facilities manager shall be responsible for the monthly (or more frequently as needed) removal of trash, debris, and sediment from vegetated swales.

WQ-4 After project completion the site facilities manager shall be responsible for integrated pest/plant management and minor vegetation removal and thinning of vegetation within the vegetated swales. This shall occur on a monthly (or more frequently as needed) basis.

WQ-5 After project completion the site facilities manager shall be responsible for major vegetation removal/planting and major sediment removal as required (annually or less frequently) within the vegetated swales.

WQ-6 During construction the site facilities manager shall ensure that erosion is controlled via physical stabilization through hydraulic mulch, soil binders, straw mulch, bonded fiber matrices, and erosion control blankets (i.e., rolled erosion control products).

WQ-7 During construction the site facilities manager shall ensure that erosion is controlled by ensuring that the area and duration of exposure of disturbed soils is limited.

WQ-8 During construction the site facilities manager shall ensure that erosion is controlled via soil roughening of graded areas (through track walking,

scarifying, sheepsfoot rolling, or imprinting) to slow runoff, enhance infiltration, and reduce erosion.

WQ-9 During construction the site facilities manager shall ensure that erosion is controlled by stabilizing vegetation through temporary seeding to establish interim vegetation

WQ-10 During construction the site facilities manager shall ensure that wind erosion (dust) is controlled through the application of water or other dust palliatives as necessary to prevent and alleviate dust nuisance.

WQ-11 During construction the site facilities manager shall ensure that a soil monitoring plan is prepared and implemented.

WQ-12 During construction the site facilities manager shall ensure that sediment is controlled through the use of silt fences, fiber rolls, gravel bag berms, sand bag barriers, and straw bale barriers, which will provide perimeter protection and will prevent discharges.

WQ-13 During construction the site facilities manager shall ensure that storm drain inlets are protected to control sediment.

WQ-14 During construction the site facilities manager shall ensure that silt fences, fiber rolls, gravel bag berms, sand bag barriers, and straw bale barriers are used on-site.

WQ-15 During construction the site facilities manager shall ensure the use of sediment traps, protection of storm drain inlets, and sediment basins, to capture and control sediment.

WQ-16 During construction the site facilities manager shall ensure that sediment velocity is reduced through the use of check dams, sediment basins, and outlet protection/velocity dissipation devices.

WQ-17 During construction the site facilities manager shall ensure that the construction entrance/exit is stabilized, that the construction road is stabilized and that there is a tire wash at the entrance/exit, which will reduce off-site sediment tracking.

WQ-18 During construction the site facilities manager shall manage solid, sanitary, concrete, hazardous, and equipment-related wastes.

WQ-19 During construction the site facilities manager shall ensure that soil stockpiles are protected through covers, the application of water or soil binders, and perimeter control measures.

WQ-20 During construction the site facilities manager shall implement good housekeeping practices to reduce or limit pollutants at their source before they are exposed to storm water, including such measures as: water conservation practices, vehicle and equipment cleaning and fueling practices.

WQ-21 During construction the site facilities manager shall ensure that Best Management Practices (BMPs) are implemented to reduce or eliminate the discharge of sediment or other pollutants due to construction activities within and adjacent to the waterway including: BMPs for pile driving operations; BMPs for managing materials and equipment over water; and BMPs for managing demolition adjacent to waterways.

WQ-22 During construction the site facilities manager shall ensure the training of individuals responsible for Storm Water Pollution Prevention Plan (SWPPP) preparation, implementation, and permit compliance, including contractors and subcontractors.

WQ-23 During construction the site facilities manager shall ensure that signage (bilingual, if appropriate) is present on-site to address SWPPP-related issues (such as site cleanup policies, BMP protection, washout locations, etcetera).

WQ-24 During construction the site facilities manager shall perform routine site inspections and inspections before, during (for storm events greater than 24 hours), and after storm events.

WQ-25 During construction the site facilities manager shall implement maintenance and repairs of Best Management Practices as indicated by routine and storm event inspections.

WQ-26 During construction the site facilities manager shall ensure that a Sampling and Analysis Plan for non-visible pollutants is prepared and implemented.

WQ-27 During development the project applicant shall ensure that the project complies with adopted regulatory requirements, including: MS4 Permit and SUSMP requirements; Construction General Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan water quality objectives, California Toxics Rule (CTR) criteria, and Total Maximum Daily Loads (TMDLs).

WQ-28 Prior to the commencement of the project, the project applicant shall ensure that an Army Corps of Engineers (ACOE) Section 404 Permit has been obtained and that permit requirements are adhered to.

WQ-29 Prior to the commencement of the project, the project applicant shall ensure that Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification is obtained and that requirements are adhered to.

N-1 During the construction phase, applicant shall ensure that all construction activities shall be limited to the hours and days permitted by the Los Angeles County Code.

N-2 During the construction phase, applicant shall ensure that all construction and demolition equipment shall be fitted with properly sized mufflers.

N-3 During construction, applicant shall ensure that all noise generating equipment shall be located as far as practicable from the surrounding properties.

N-4 During construction, applicant shall ensure that poured-in-place piles shall be used where feasible. A qualified geotechnical engineer shall review the feasibility of this method, including assessing the necessary depth of the holes to ensure piles are supported in bedrock or sufficiently dense soils.

N-5 Prior to construction, applicant shall ensure that an acoustical study shall be performed based on the final construction methodology to investigate alternative means of reducing noise impacts from impact pile driving or vibratory pile driving.

N-6 Prior to construction, applicant shall ensure that a qualified structural and/or geotechnical engineer shall review the proposed construction methodologies to ensure that vibration from drilling and other activities does not pose a risk of building damage, particularly due to dynamic soil settlement.

N-7 Prior to construction, applicant shall ensure that an indicator pile program as outlined in the December 10, 2008 letter report by Van Beveren and Butelo will be performed prior to proceeding with pile installation.

N-8 During construction, applicant shall ensure that a qualified structural and/or geotechnical engineer shall be on-site to perform tests and observations to ensure the structural stability of the structures in the vicinity of the construction area. Such observations may include vibration velocity measurements inside and/or outside of potentially affected buildings.

T-1 Prior to the issuance of building permits, the project applicant shall pay Transportation Improvement Program fees based on the PM peak hour trips generated by the project in the amount of $102,420.

T-2 Prior to commencement of construction, the applicant, in coordination with the County Department of Beaches & Harbors, shall prepare an interim parking plan providing 63 public parking spaces in the same general geographic location, which shall remain available until permanent parking is provided.

T-3 Prior to the issuance of building permits, the project applicant shall, in coordination with the County of Los Angeles, prepare a construction management plan that addresses, at a minimum, the recommendations contained in the Traffic Impact Analysis Section 15.3, Construction Management Plan Criteria.

U-1 Prior to the issuance of a grading permit, the project developer shall coordinate with Los Angeles County Waterworks District #29 and Los Angeles County Department of Public Works to determine the exact location of all existing underground water supply facilities and take action to prevent damage to these facilities to be left on the project site or interfere with their

operation. The project developer shall pay its fair share required fees for the necessary facilities to accommodate project-related water supplies.

U-2 Prior to the issuance of a grading permit, the project developer shall coordinate with the Los Angeles County Sewer Maintenance District and the Marina del Rey Sewer Maintenance District to determine the exact location of all existing underground wastewater supply facilities and take action to prevent damage to these facilities to remain on the project site. The project developer shall pay their fair share fees for the necessary facilities to accommodate project-related wastewater facilities.

U-3 Prior to the issuance of a grading permit, the project developer shall coordinate with Southern California Edison to determine the exact location of all overhead and underground electrical facilities. All electrical lines and associated structures to be left on the project site shall be protected from damage.

U-4 Prior to the issuance of a grading permit, the project developer shall coordinate with Southern California Gas to determine the exact location of all underground natural gas facilities. All gas lines and associated structures to be left on the project site shall be protected from damage.

U-5 Prior to the issuance of a grading permit, the project developer shall coordinate with Verizon to determine the exact location of all overhead and underground telephone facilities. All telephone lines and associated structures to be left on the project site shall be protected from damage.

U-6 Prior to the issuance of a grading permit, the project developer shall ensure that grading plans reflect the undergrounding of utility lines serving the proposed project.

10. Inventory of Unavoidable Adverse Impacts

Aesthetics – Building height, massing, and scale

Air Quality – Contribution of greenhouse gas emissions, impact on global climate change

Noise – Short-term construction impacts

11. Organizations Affiliated with the Project

The County of Los Angeles is the Lead Agency for the Boat Central project. Contact persons for the project are:

County of Los Angeles

Department of Regional Planning
320 West Temple Street, Room 1362
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Project Applicants

MDR Boat Central, LLP
3416 Via Lido, Suite G
Newport Beach, CA 92663
(949) 673-6310

County of Los Angeles Department of Beaches & Harbors
13837 Fiji Way
Marina del Rey, CA 90292
(310) 305-9503

Other Organizations Affiliated with the Project

Air Quality

KPC Environmental, Inc.
21380 Loquat Street
Wildomar, CA 92595
(951) 294-0822

Architect

AC Martin Partners, Inc.
444 S. Flower Street, #1200
Los Angeles, CA 90071
(213) 683-1900

Jamie B. Myer Architects, Inc.
6406 W. 83rd Street
Los Angeles, CA 90045-2846
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Biological Resources

Dr. Jeffrey B. Froke (J.B. Froke, Ph.D.)
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Pebble Beach, CA 93953
(831) 224-8595

Rick Ware
Coastal Resources Management, Inc.
3334 E. Coast Highway, PMB 327
Corona del Mar, CA 92625
(949) 412-9446

Robert Hamilton
7203 Stearns Street
Long Beach, CA 90815
(562) 477-2182

Geotechnical Evaluation

Van Beveren and Butelo, Inc.
706 W. Broadway, Suite 201
Glendale, CA 91204
(818) 543-4560

Hydrology and Water Quality

Geosyntec Consultants
55 SW Yamhill, Suite 200
Portland, OR 97204
(503) 222-9518

Noise

Wieland Acoustics, Inc.
2691 Richter Avenue, Suite 114
Irvine, CA 92606
(949) 474-1222

Phase I Site Assessment

Methane Specialists
621 Via Alondra, Suite 611
Camarillo, CA 93012
(805) 987-3968

Traffic

Linscott, Law & Greenspan, Engineers
1580 Corporate Drive, Suite 122
Costa Mesa, CA 92626
(714) 641-1587

12. Organizations and Persons Consulted

Ballona Wetlands Website:
http://resources.ca.gov/ballona_wetlands/ballona_wetlands_summaries.pdf

County of Los Angeles
Michael Tripp

County of Los Angeles Fire Department
Captain Tom Brady

County of Los Angeles Sewer Maintenance Division
Nick Agbobu

County of Los Angeles Waterworks Division
Greg Even

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame

Gabrielino Tongva Nation
Sam Dunlap

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales

Los Angeles County Sheriff's Department
Lieutenant Reginald Gautt

Native American Heritage Commission

Southern California Edison
Gabrielle de Gange and Marcus Bland

Southern California Gas Company
Mike Grimm and Ramone Torres

Ti'At Society, Cindi Alvitre

Verizon California, Inc.
Zack Feingold and Michael Maresca

Waste Management, Inc.
Vince Sabotin

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