PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

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APPLICATION FOR PERMIT
Dana Point Harbor Maintenance Dredging and
Beach Nourishment Project Five-Year Renewal

Public Notice/Application No.: SPL-2013-00525-RRS
Project: Dana Point Harbor Maintenance Dredging and Beach Nourishment Project
Comment Period: December 11, 2014 through January 12, 2015
Project Manager: Robert Smith; 760-602-4831; Robert.R.Smith@usace.army.mil

Applicant
OC Dana Point Harbor/County of Orange
David L. Rocha, P.E.
24650 Dana Point Harbor Drive
Dana Point, California 92629
(949) 923-3794

Contact
Chambers Group, Inc.
Noel Davis
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Santa Ana, California 92707
(949) 261-5414

Location

The proposed work would take place within Dana Point Harbor, in the city of Dana Point, Orange County, California (dredging site: latitude: 33.45926, longitude: 117.69534), as well as separate beach nourishment sites, Capistrano County Beach and Baby Beach, in the city of Dana Point, Orange County, California and the off-shore ocean disposal site, LA-3 (Figures 1-3).

Activity

Specifically, the applicant proposes to dredge approximately 136,000 cubic yards (CY) of material including depths from -8 feet Mean Lower Low Water (MLLW) to -15 feet MLLW per attached table (preliminary dredge volumes) with up to 2 feet of over-dredging and 25% contingency from various portions of Dana Point Harbor (Harbor) with a proposed pipeline route. The areas to be dredged include the Main Channel adjacent to the Entrance channel, Main Channel adjacent to the West Breakwater, the West Anchorage, the Pilgrim Moorage/Cove Pier, the Sailing Center Docks, the East Basin, and the Boat Launch Ramp Basin (north and south). Please see attached figures outlining dredging areas. Suitable material dredged would be discharged for the purpose of beach nourishment at Baby Beach within the Harbor and at Capistrano Beach County Park adjacent to the Harbor. In addition, 34,000 CY of dredged material suitable for ocean disposal would be discharged at the LA-3 Ocean Dredged Material Disposal Site (ODMDS) and 3,000 CY of unsuitable material would be disposed at an upland landfill. For more information, see page 7 of this notice and attached drawings.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act (MPRSA).

Comments should be mailed to:

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ATTN: Robert Smith
Carlsbad Field Office
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Alternatively, comments can be sent electronically to: Robert.R.Smith@usace.army.mil

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable waters and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect

the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made that an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board – San Diego Region (CRWQCB). Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- The applicant has certified that the proposed activity would comply with and would be conducted in a manner that is consistent with the approved State Coastal Zone Management Program. For those projects in or affecting the coastal zone, the Federal Coastal Zone Management Act requires that prior to issuing the Corps authorization for the project, the applicant must obtain concurrence from the California Coastal Commission that the project is consistent with the State's Coastal Zone Management Plan. The District Engineer hereby requests the California Coastal Commission's concurrence or non-concurrence.

Essential Fish Habitat (EFH)/Grunion- The Corps of Engineers preliminary determination indicates that the proposed activity may adversely affect EFH. Pursuant to Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Los Angeles District hereby requests initiation of EFH consultation for the proposed project. This notice supplements the the EFH consultation requirements of the Act and the Corps has initiated EFH consultation with NMFS via email dated November 10, 2014. In order to comply with the Magnuson-Stevens Fishery Conservation and Management Act (MSA), pursuant to 50 CFR 600.920(e)(3), I am providing, enclosing, or otherwise identifying the following information:

1. Description of the proposed action: See project description on page 7 of this public notice.

2. On site inspection information: See baseline information on page 7 of this public notice.

3. Analysis of the potential adverse effects on EFH: The Corps initiated EFH consultation with the National Marine Fisheries Service (NMFS) on November10, 2014 and requests NMFS' conservation recommendations and/or EFH determination.

4. Proposed minimization, conservation, or mitigation measures: To minimize the spread and introduction of this species and other potentially invasive species, the permittee shall comply with the current *Caulerpa Control Protocol* (Version adopted in 2008) as modified in the future with Corps review and approval. Note that *Caulerpa taxifolia* has not been found in Dana Point Harbor. Also, eelgrass surveys were submitted in 2010 and eelgrass has been found near Baby Beach and the applicant may avoid impacts. Also the applicant shall comply with the Southern California Eelgrass Mitigation Policy (SCEMP) if impacts do occur based on the pre-construction survey. The project should avoid placement of dredge material or other beach impacting activities within the grunion spawning zone between March 15 and August 31 to avoid adversely affecting grunion spawning success. Pre-project surveys involving beach disposal should be conducted to evaluate beach suitability for grunion activity if project activities will occur between the months of March and August. No monitoring is required for grunion if there is no suitable habitat identified. If surveys indicate that beach conditions are found to be suitable for grunion spawning activity or grunion spawning activity is detected at any time within the project footprint, the immediate area will be avoided for any disposal/reuse activities. If it is necessary to conduct activities within the grunion spawning zone during the predicted grunion spawning period, impacts should be avoided by monitoring the beach for spawning activity prior to the anticipated construction work. If grunion have spawned, no beach impacting activities within the spawning zone should occur until the eggs have hatched and no subsequent spawning occurs.

5. Conclusions regarding effects of the proposed project on EFH: Based on the project description and EFH assessment provided by the applicant, the proposed project would result in disturbance of approximately 10 acres of substrate from dredging and 7.06 acres from beach nourishment. Furthermore, the affected substrate would likely consist of soft bottom and hard bottom substrate, intertidal and shallow subtidal riprap, kelp, low relief reefs, and lower zones of high relief reefs.

Therefore, it is my initial determination the proposed activity may adversely affect EFH or federally managed fisheries in California waters. My final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NOAA Fisheries.

Cultural Resources- The latest version of the National Register of Historic Places has been consulted and this site is not listed. This review constitutes the extent of cultural resources investigations by the District Engineer, and she is otherwise unaware of the presence of such resources.

Endangered Species- Preliminary determinations indicate that the proposed activity would not affect federally listed endangered or threatened species, or their critical habitat. The harbor and beach areas where dredging and disposal activities would take place do not support any native terrestrial vegetation, and therefore no sensitive plants would be expected to occur. After a literature review, including a search of the California Natural Diversity Database (CDFW 2013) and a consideration of the habitat types that may be affected by the Dana Point Harbor Dredging Project, it was determined

that eight federally listed animal species have the potential to occur within the general project area. Each of the sensitive wildlife species was evaluated for its potential occurrence on the project site. Of these eight species, two were considered to have a moderate to high potential to occur on or adjacent to the project site. Those species with potential to occur in the project area include western snowy plover (WSP*; Charadrius alexandrinus nivosus*), and California least tern (CLT; *Sterna antillarum browni*).The permittee shall not perform in-water work during the CLT nesting season and shall avoid impacts to CLT. If dredged material is reused and placed directly on the beach, a biological monitor will be present in the project area and will conduct surveys for WSP prior to placement operations. If WSP are found, construction activities will cease and avoid the immediate areas where the WSP occur until the birds have vacated the area.

In the late 1970s and 1980s, reported black abalone densities in the area between Corona Del Mar and Dana Point were relatively low at less than one per square meter (NMFS 2011b). Black abalone that was monitored at a site in Laguna Beach went extinct in 1986 (Butler et al 2009; NMFS 2011b). Surveys at four rocky intertidal sites in south Orange County have recorded no black abalone since 2005 (NMFS 2011b). A black abalone was reported from a Dana Point tidepool in 2010, but the abalone could not be relocated and the identification confirmed (NMFS 2011b). No black abalones have been observed in recent diver surveys along the pipeline route or project area (Chambers Group 2008; MBC 2009). Two species of pinniped federally designated as threatened and six species of whales federally listed as endangered have a potential to occur in the nearshore waters off Dana Point Harbor and Capistrano Beach. The threatened pinnipeds are the Guadalupe fur seal (*Arctocephalus townsendi*) and the Stellar sea lion (*Eumetopias jubatus*). The endangered whales are blue whale (*Balaenoptera musculus*), sei whale (*B. borealis*), fin whale (*B. physalus*), humpback whale (*Megaptera novaeangliae*), northern right whale (*Balaena glacialis*), and sperm whale (*Physeter macrocephalus*). Although any of these species potentially could occur in project area waters, their presence would be unlikely. Four species of federally listed sea turtles have the potential to occur in project area waters. These species are the federally listed as threatened loggerhead sea turtle (*Caretta caretta*), the federally listed as threatened Pacific Ridley sea turtle (*Lepidochelys olivacea*), the federally listed as threatened green sea turtle (*Chelonian mydas*), and the federally listed as endangered leatherback sea turtle (*Dermochelys coriacea*). All of these turtles have the centers of their populations elsewhere but are seen occasionally off the southern California coast. Green turtles have been seen off Dana Point Harbor, but the only places in southern California where they are common are near power plants at the southern part of San Diego Bay,the San Gabriel River mouth, and Alamitos Bay (USN 2000; Aspen 2005; RBF and MBC 2003). Leatherback sea turtles are the most common sea turtle in United States waters north of Mexico. NMFS recently designated Critical Habitat for leatherback sea turtles (NMFS 2012). The Orange County coast is not within the designated Critical Habitat. Based on our review to date our preliminary determination is that formal consultation under Section 7 of the Endangered Species Act does not appear to be required at this time but we welcome comments and may re-evaluate our compliance with ESA after receipt of comments. The dredged material beach disposal sites and ocean disposal and upland disposal sites are not located within any designated critical habitat for

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the

applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). The basic project purpose for the proposed project is dredging and beach nourishment. The project is water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to perform maintenance dredging and beach nourishment with suitable dredged material in portions of Dana Point Harbor and nearby beaches and/or the ocean, in Orange County, California.

Additional Project Information

Baseline information- The County of Orange is proposing to dredge approximately 136,000 CYs of material from Dana Point Harbor. Dredge material will be disposed of within the Harbor at Baby Beach, at the LA-3 Dredged Material Ocean Disposal Site offshore Newport Beach, at San Juan Capistrano County Beach (Capistrano Beach) and at an upland landfill for material not suitable for beach or ocean disposal. The Biological Assessment of the Dana Point Harbor Maintenance Dredging Project dated February, 2014 prepared by Chambers Group, Inc. discusses the biological resources within Dana Point Harbor, along the pipeline route to Capistrano Beach, and at the Capistrano Beach disposal site. The report also addresses potential impacts to those resources from dredging and dredged material disposal.

Dana Point Harbor is a recreational boat harbor located in the City of Dana Point along the southern coastline of Orange County, approximately halfway between Los Angeles and San Diego (Figure 1). Capistrano Beach is approximately 1.2 miles south of Dana Point Harbor. The Corps has received a biological assessment based on recent surveys and biological reports of Dana Point Harbor (Merkel & Associates 2005; Chambers Group 2004, 2005, 2008; RBF and MBC 2003; MBC 2008, 2009; Coastal Resources Management 2010) and Capistrano Beach (Coastal Resources Management 2000).

The Corps and EPA via the Southern California Dredged Material Management Team (SC-DMMT) analyzed the project in compliance with the Inland Testing Manual (ITM) and the Ocean Disposal Manual when it was first presented to the SC-DMMT on July 24, 2013. The SC-DMMT requested changes, primarily related to the sediment samples compositing approach. A revised SAP was submitted and approved at the September 25, 2013 SC-DMMT meeting. Sampling was conducted in October 2013. The SAP results report was presented at the March 26, 2014 SC-DMMT meeting. The SC-DMMT meeting minutes reflected that the agencies agreed the results supported the suitability determinations of the proposed disposal/reuse locations for the dredged material disposal.

Figure 1 shows the project location and Figure 2 shows Dana Point Harbor. Figure 3 shows a map of these areas and the dredge design depths for each area. The design depths range from -8 feet MLLW at the Sailing Center Docks to -15 feet MLLW in the Main Channel. The total maximum quantity of dredge material includes an allowance for two feet of possible overdredge depth beyond the design depth and a 25% contingency to account for additional sediment deposition that will likely occur between the 2013 condition survey and dredging as well as for incidental sloughing of dredge cut side slopes. This total amount is estimated to be 136,000 CYs. Channel deepening in the Pilgrim Moorage area (just south of the Fishing Pier) is proposed to accommodate larger Ocean Institute or other visiting historic / tall ship vessels. The proposed change is to deepen the area from -10 feet MLLW to

-14 feet MLLW (i.e., for a new authorized design depth of -14 feet MLLW). This design depth is consistent with the currently authorized -14 feet MLLW depth for the adjacent area alongside the current Pilgrim moorage docks (i.e., the proposed change is to expand the -14 feet MLLW design depth for the entire Pilgrim / Historic Vessels Moorage area south of the Fishing Pier).

In February 2008, prior to the last dredging episode, Chambers Group performed a biological survey of the proposed pipeline route area (Chambers Group 2008). The survey used a combination of sonar, underwater video, and SCUBA diving to characterize the area. Most of the route was sand with scattered low relief. The rocks were generally bare of organisms, with the exception of red algae. The lack of growth indicated that low-relief rocks in the area are likely subjected to sand scour and periodic burial. The proposed pipeline route crossed the existing sewer line, which is covered by ballast rocks that support a lush growth of gorgonians (*Muricea californica* and *M. fruticosa*). A few areas of high relief, which supported gorgonians, bladder chain kelp (*Cystoseira osmundacea*), and palm kelp (*Eisenia arborea*), were observed in the potential pipeline route area. It was recommended that the pipeline route avoid those features.

MBC performed a pre-dredging survey of the pipeline route in August 2008 and a post-dredging survey in February 2009. Most of the pipeline area was scattered rock and cobble amongst sand bottom; but several reefs, some as high as six feet above the sand bottom, were observed within and adjacent to the corridor. In addition, the pipeline crossed the SERRA outfall, which, as observed in the Chambers Group survey, is covered by riprap. Growth on the rocks included gorgonians, bladder chain kelp, feather boa kelp (*Egregia menziesii*), southern sea palm, coralline algae, and red algae turf. Surfgrass (*Phyllospadix torreyi*) was observed at several sites along the pipeline route. Fishes observed along the pipeline corridor included señorita, horn shark (*Heterodontus francisci*), black perch, garibaldi, kelp bass, and barred sand bass.

Marine mammals common in nearshore waters off Capistrano Beach include California grey whale, bottlenose dolphin, common dolphin, Pacific white-sided dolphin, California sea lion, and harbor seal (Coastal Resources Management 2000; RBF and MBC 2003). Common seabirds in nearshore waters include western gulls (*Larus occidentalis*), cormorants, surf scoters, California brown pelicans, and western grebes (*Aechmophorus occidentalis*) (Coastal Resources Management 2000). The Corps is requesting from NMFS that they provide any other needed conditions or measures needed to avoid impacts under the Marine Mammal Protection Act as well as Federally listed marine mammals.

The proposed material disposal / re-use sites are:

- Capistrano County Beach
- Baby Beach
- EPA-approved LA-3 (ODMDS)
- Upland landfill (likely Prima Deshecha Landfill in San Juan Capistrano, or Olinda Alpha Landfill in Brea)

Figure 4 shows the beach placement sites and Figure 5 shows the LA-3 Ocean Dredged Material Disposal Site (ODMDS). Based on sediment sampling from the previous dredging cycles in Dana Point Harbor, it is anticipated that the material from the Main Channel adjacent to the West Breakwater and West Anchorage areas will be sandy material and can be used for beach nourishment at Capistrano County Beach and Baby Beach. The material from the Pilgrim Moorage/Cove Pier, Sailing Center Docks, Boat Launch Ramp Basin and East Basin areas are likely

to be finer silty, clayey material. With the exception of the material immediately adjacent to the 60-inch storm drain outfall, this finer material is proposed for disposal at the LA-3 ODMDS. The material immediately adjacent to the 60-inch outfall is likely to not be suitable for open ocean disposal and will require disposal at an upland landfill.

Harbor dredging will most likely occur via clamshell dredge or cutter/suction head dredge or a combination of both. The sandy material will most likely be removed using a cutter/suction head dredge and hydraulically pumped via pipeline from Dana Point Harbor to Capistrano Beach, using the same pipeline corridor as from the previously approved project. A booster pump along the length of pipeline may be needed. The sandy slurried material will be placed into temporary fill dikes constructed on Capistrano Beach and final beach grading will be performed using bulldozers.

A small amount of coarse sandy material will be placed on Baby Beach to maintain a +9-foot MLLW beach berm elevation. If the clamshell dredge is used for the sand removal, then the sand will be loaded onto scows, transported to an unloading dock, and then taken via truck to Baby Beach. If the cutter/suction head method is used, the sand will be pumped through a pipe directly onto Baby Beach from the dredge barge. The material within the harbor channels designated for disposal at LA-3 will be removed using clamshell dredge equipment, loaded onto bottom-dump scows, and transported to the LA-3 site for disposal there. If any upland disposal is required, this material will be removed using clamshell dredge equipment, transported to an unloading dock, loaded onto trucks, and then taken to an appropriate upland landfill disposal site (such as the Prima Deshecha or Olinda Alpha Landfills). Estimates of construction durations are as follows: a) two to four weeks for mobilization of construction equipment, b) six to eight weeks for dredging and disposal assuming that both the fine and coarse sediment dredging operations occur simultaneously, and c) two weeks for demobilization of construction equipment. Some boat slips may need to be closed during dredging and the boats will be moved to temporary slips. Several measures will be taken to reduce water quality impacts during dredging and material placement at the beach sites. These and any additional requirements will be addressed in the plan specifications.

Sediment deposition in the Harbor occurs from littoral sediment transport, which enters the harbor through the entrance channel and the permeable breakwater, and from storm drain discharges. To maintain the harbor, the County of Orange needs to periodically remove this accumulated sediment. The County of Orange has carried out previous Harbor maintenance dredging in the navigation channels, anchorages, and areas under docks that have become shoaled due to sediment build up. The most recent previous dredging cycle occurred in 2008/2009 in which approximately 78,300 CYs of sediment were dredged. Of this total volume, approximately 48,400 CYs of sandy material were placed on Capistrano County Beach for beach nourishment, 5,700 CYs of sandy material were placed on Baby Beach, and the remaining 24,200 CYs of fine silty and clayey material were deposited at the LA-3 Ocean Dredged Material Disposal Site. The 1999/2000 dredging cycle removed approximately 50,500 CYs of material from the harbor and that material was also reused/placed at Capistrano Beach and Baby Beach, and deposited at LA-3.

Facilities within the harbor immediately adjacent to the water include the East and West Marinas containing approximately 2,400 slips and 50 guest slips, a fuel dock, bait barge, boat launch ramps, commercial fishing docks, a boatyard, guest docks, boat rental docks, yacht clubs, the youth and group facility, an interior swim beach known as “Baby Beach,” a fishing pier, and the Ocean Institute docks for tall ships and research vessels.

The proposed project would not substantially degrade water quality in the Harbor. The only impacts to water quality that could occur would be during the construction of the project. Turbidity from

construction activities, such as dredging and beach nourishment activities, may potentially impact water quality temporarily through the re-suspension of sediments. Sediment deposition in the harbor occurs from littoral sediment transport, which enters the harbor through the entrance channel, permeable breakwater, and storm drain discharges. This results in navigational hazards due to shoaling. A small amount of coarse sandy material will be placed on Baby Beach to maintain a +9-foot MLLW beach berm elevation. If the clamshell dredge is used for the sand removal, then the sand will be loaded onto scows, transported to an unloading dock, and then taken via truck to Baby Beach. If the cutter/suction head method is used, the sand will be pumped through a pipe directly onto Baby Beach from the dredge barge.

The material within the harbor channels designated for disposal at LA-3 will be removed using clamshell dredge equipment, loaded onto bottom-dump scows, and transported to the LA-3 site for disposal there. If any upland disposal is required, this material will be removed using clamshell dredge equipment, transported to an unloading dock, loaded onto trucks, and then taken to an appropriate upland landfill disposal site (such as the Prima Deshecha or Olinda Alpha Landfills).

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b) (1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: The proposed project is a renewal of an expired maintenance dredging and beach nourishment permit and any impacts to eelgrass shall be mitigated per the SCEMP. The areas to be dredged have been dredged previously in and are largely clean sands and the beach nourishment and disposal of dredged material shall comply with the ITM. Per Regulatory Guidance Letter 93-02, the Corps should vary the analysis to reflect the seriousness of the potential for adverse impacts on the aquatic ecosystems posed by specific dredged or fill material discharge activities. The Corps has previously completed a Section 404(b)(1) alternatives analysis for the expired permit and has completed a compliance review of the previous work.

Since no aquatic sites are to be impacted (eelgrass impacts are to be mitigated per SCEMP) and the action is largely a routine maintenance dredging and beach nourishment action with similar historic permitted dredging and beach nourishment impacts the Corps is proposing not to require a strenuous Section 404(b)(1) alternatives analysis. The Corps welcomes comments on our sequencing approach for the alternatives analysis. Impacts to the State beaches where dredged material was placed have helped restore the shoreline with beneficial sand deposits with no adverse down-coast or up-coast erosion and no impacts to any hard reef structures or marine vegetation impacts.

Minimization: The Corps performed compliance inspections under the previous Corps permits for each dredging and beach nourishment event and the work was compliant with the Corps permit requirements. The applicant included minimization measures such as a monitoring program for every dredging event. The monitoring program has minimized impacts to eelgrass, wetlands, turbidity, bacterial pollution, endangered species, and marine aquatic resources. Turbidity will be controlled during dredging so that it does not increase turbidity in the harbor more than 20 percent above ambient. Construction BMPs will be implemented to minimize the potential for water quality impacts.

Compensation: The impacts to biological resources of the dredging of Dana Point Harbor and disposal of beach-compatible sediments on Capistrano Beach and Baby Beach would be expected to result in temporary disruption of marine communities in the vicinity of the dredging and disposal

operations. Affected communities are expected to return to pre-project conditions in less than two years. For dredging offshore Baby Beach and disposal at Baby Beach, a pre-dredging survey to map eelgrass would be required. All patches of eelgrass shall be marked, and dredging and disposal operations should avoid eelgrass to the extent possible. A post-dredging eelgrass survey shall be done. If any eelgrass is lost, it shall be replaced by transplanting eelgrass at a ratio of 1.2:1, as requested in the SCEMP.

For disposal on Capistrano Beach, if sediment placement occurs during the grunion spawning season of March to September, a qualified biologist should monitor all predicted grunion runs. If grunions spawn in the vicinity of sediment placement operations, the spawning area should be marked and avoided by all operations until the next spring high tide series. A qualified biologist should monitor snowy plovers during beach placement operations. All operations should avoid areas where snowy plovers occur until the birds have vacated the area.

Proposed Special Conditions

No special conditions are proposed at this time.

For additional information please call Robert Smith of my staff at 760-602-4831 or via e-mail at Robert.R.Smith@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.

Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY
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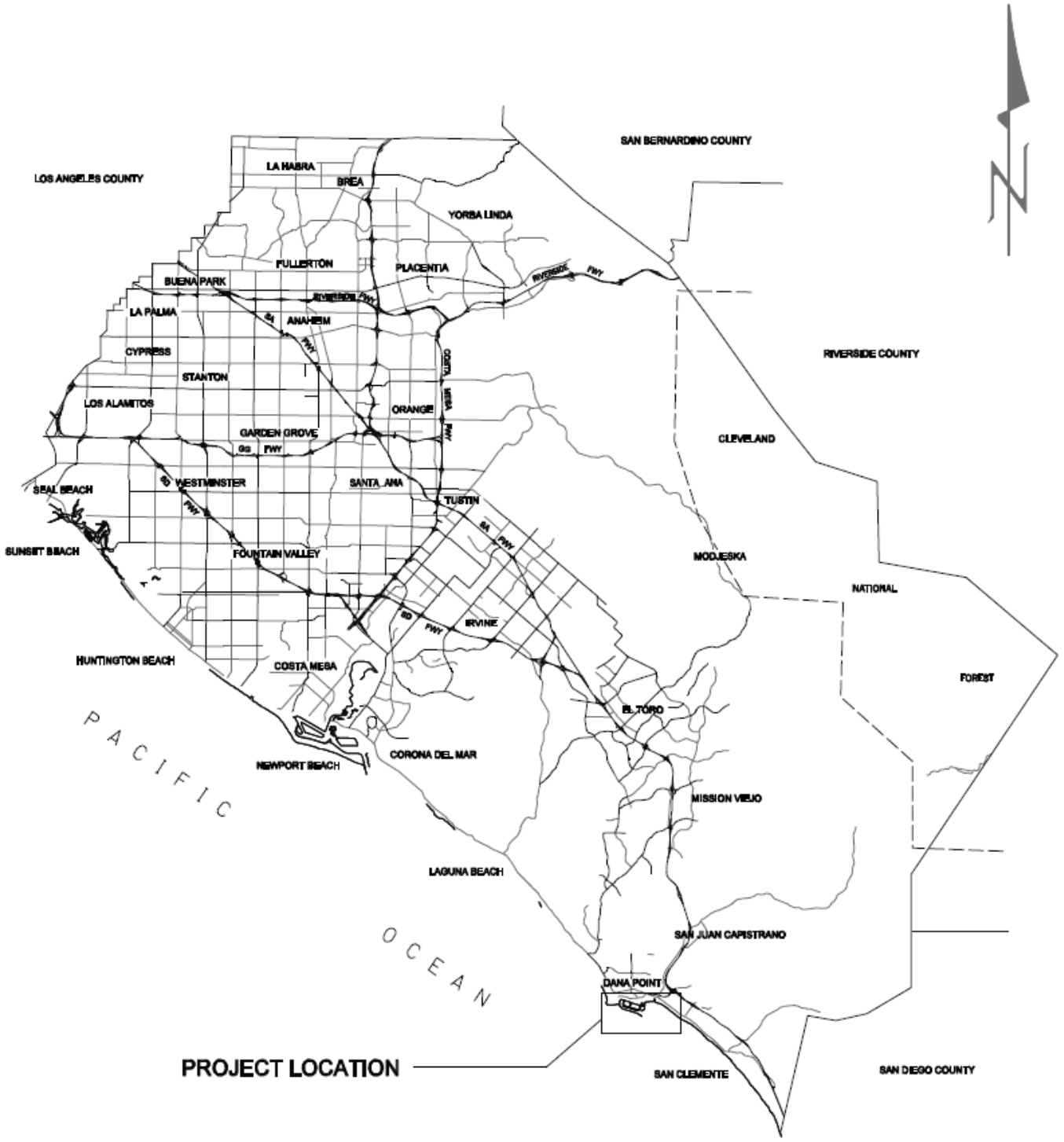


Figure 1 - Project Location

Figure 2 - Dana Point Harbor

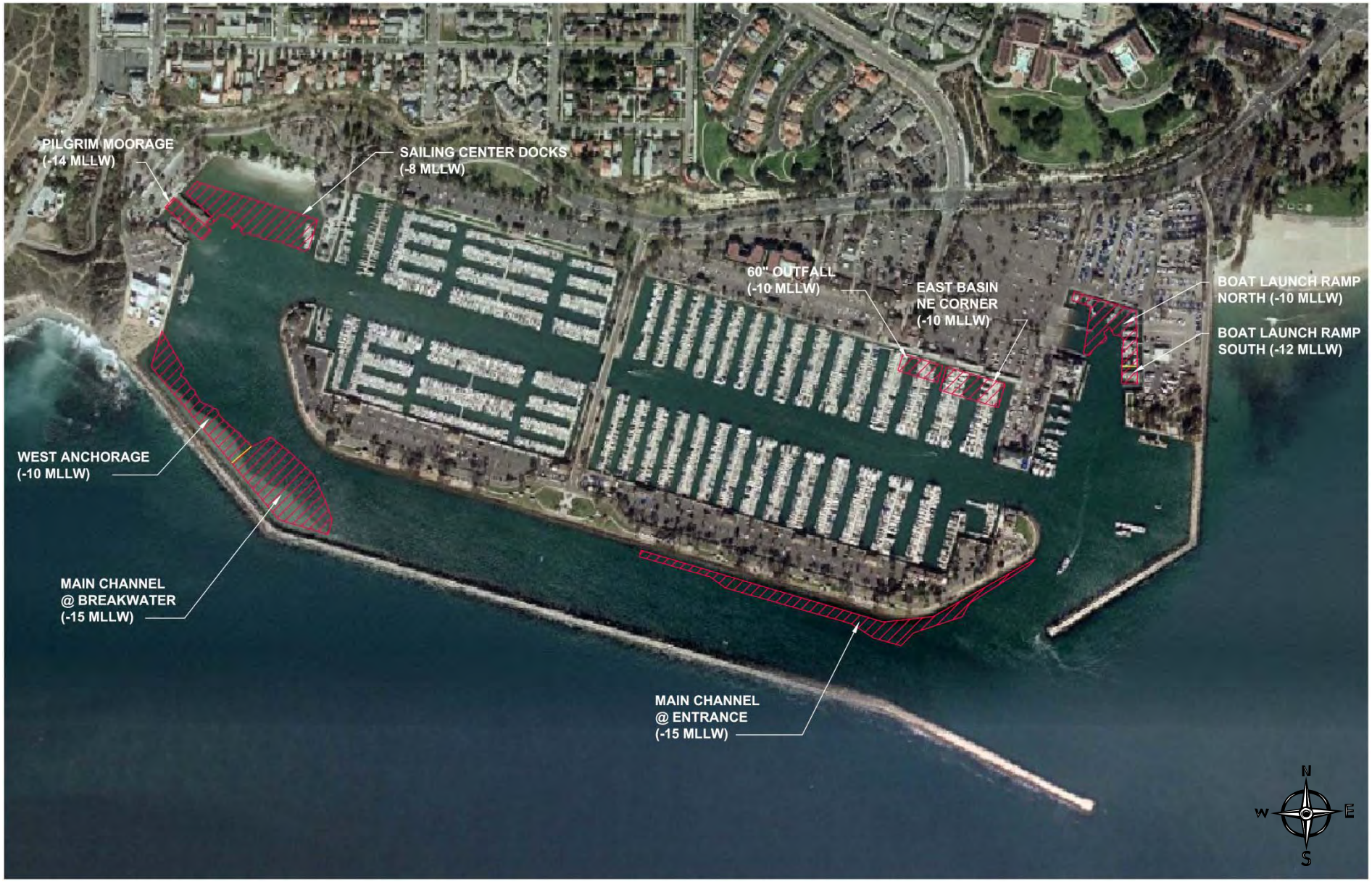


Figure 3 - Dredging Areas

Legend

Pipeline

N

0 1,000 2,000 4,000

Feet

Dana Point Harbor Dredging Project
Pipeline Location & Placement Site Map
Figure 4

Name: 20604 Pipeline Location Map.Mxd
Print Date: 2/25/2014, Author: stondre

CHAMBERS GROUP

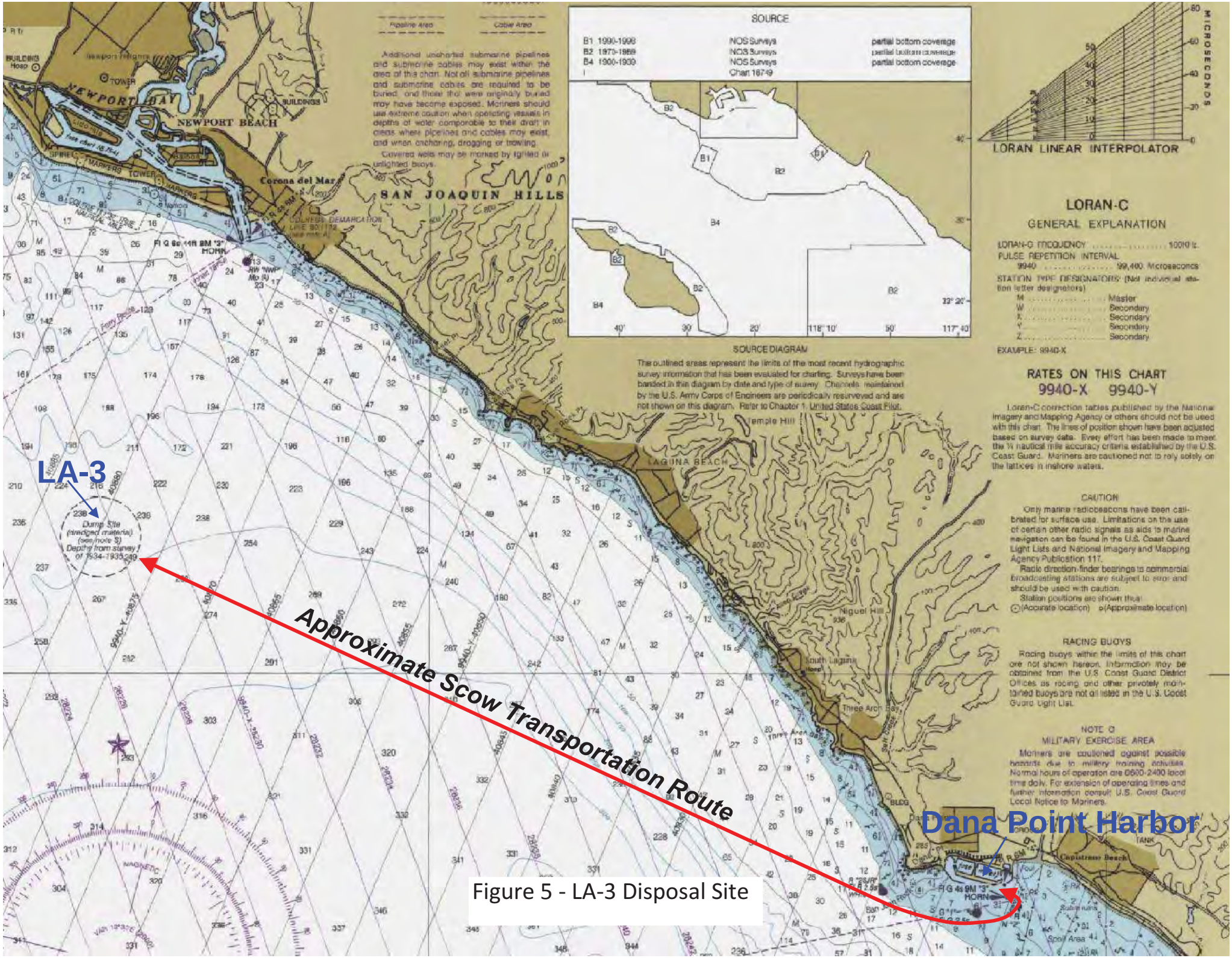
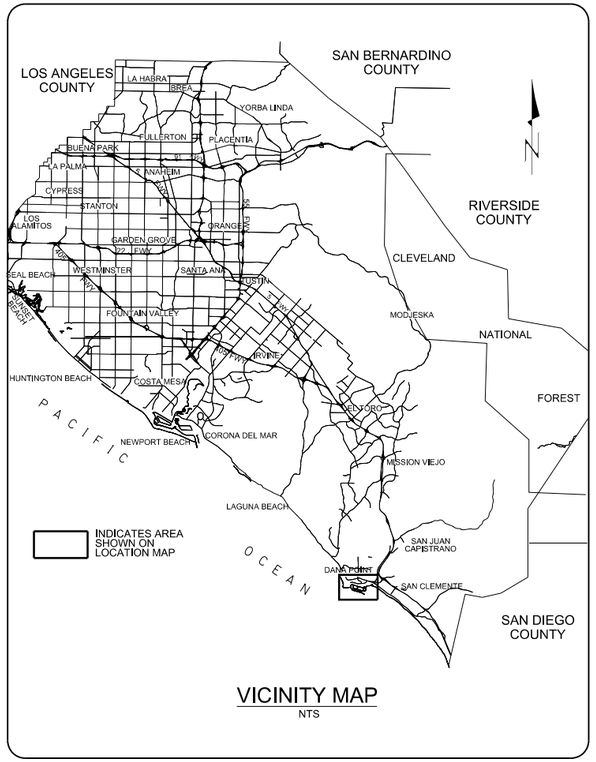


Figure 5 - LA-3 Disposal Site

PROJECT PLANS - INCLUDES EAST ANCHORAGE DREDGING AREA THAT HAS BEEN REMOVED FROM PROJECT BASED ON



VICINITY MAP
NTS

County of Orange

OC Public Works

SANTA ANA, CALIFORNIA

IGNACIO G. OCHOA, INTERIM DIRECTOR

PLANS FOR MAINTENANCE DREDGING OF

DANA POINT HARBOR

JULY 2013

MAINTENANCE DREDGING FUNDED AND MAINTAINED BY:

COUNTY OF ORANGE

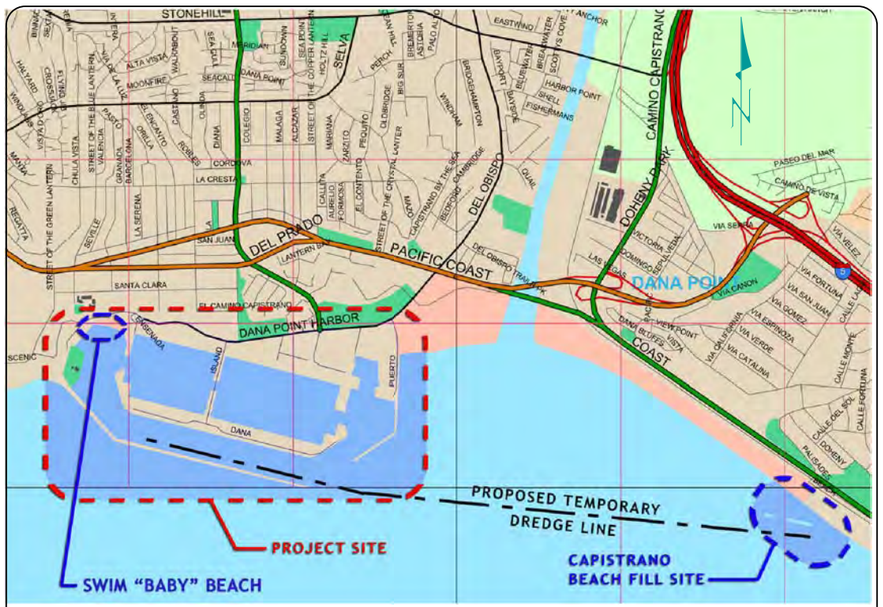
OC DANA POINT HARBOR

30% SUBMITTAL

INDEX OF SHEETS

ABBREVIATIONS

APPROX	APPROXIMATE	O.C.S.	ORANGE COUNTY SURVEYOR
BEG	BEGIN	OD	OUTSIDE DIAMETER
BLDG	BUILDING	ORIG	ORIGINAL
BM	BENCH MARK	R	RADIUS
B/W	BETWEEN	RCE	REGISTERED CIVIL ENGINEER
CL	CENTERLINE	RDMD	RESOURCES AND DEVELOPMENT MANAGEMENT DEPARTMENT
CEN	CENTER	SD	STORM DRAIN
COORD	COORDINATE	SPEC	SPECIFICATIONS
DIA	DIAMETER	STA	STATION
E	EAST	STD	STANDARD
ELEV, EL	ELEVATION	SW	SIDEWALK
ENG	ENGINEER, ENGINEERING	TOW	TOP OF WALL
EXIST, EX	EXISTING	TYP	TYPICAL
FS	FINISHED SURFACE	USA	UNDERGROUND SERVICE ALERT
FT	FOOT, FEET	VAR	VARIES
GPS	GLOBAL POSITIONING SYSTEM	VERT	VERTICAL
HOR	HORIZONTAL	X-SEC	CROSS SECTION
ID	INSIDE DIAMETER		
MAX	MAXIMUM		
MIN	MINIMUM		
MISC	MISCELLANEOUS		
MLLW	MEAN LOWER LOW WATER		
MON	MONUMENT		
N	NORTH		
NAVD	NORTH AMERICAN VERTICAL DATUM		
NGVD	NATIONAL GEODETIC VERTICAL DATUM		
NGS	NATIONAL GEODETIC SURVEY		
NO.	NUMBER		
O.C., OC	ON CENTER, ORANGE COUNTY		



LOCATION MAP
NTS

OC DANA POINT HARBOR

SUBMITTED: _____ DATE
DAVID ROCHA, P.E.,
ENGINEERING MANAGER

APPROVED: _____ DATE
BRAD GROSS, P.E.
DIRECTOR

PROJECT ADDRESS

COUNTY OF ORANGE
OC DANA POINT HARBOR
24650 DANA POINT HARBOR DR.
DANA POINT, CA. 92629
TEL. 949 923-3794

PREPARED BY

PREPARED UNDER RESPONSIBLE CHARGE OF:

moffatt & nichol

3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL. 562 426-9551
FAX 562 424-7489

ROBERT SHERWOOD, P.E., _____ DATE
MOFFATT & NICHOL

UTILITY OWNER / PHONE NO.

UTILITY OWNER	PHONE NO.
SAN DIEGO GAS & ELECTRIC	(800) 441-7343
SBC / AT&T	(714) 666-5503
COX COMMUNICATIONS	(949) 546-2810
SOUTH COAST WATER DISTRICT	(949) 499-4555
SC GAS / SEMPRA UTILITIES	(714) 634-3034

BENCH MARK:

DESCRIBED BY OCS 2003:
FOUND 3 1/4" USC & GS BRASS DISK STAMPED "NO.3 1972" ON TOP OF A 6 FT HIGH CONCRETE BULKHEAD,

ELEVATION = 7.201' NGVD 29
ADJUSTMENT=NGVD 29+2.72'
=9.92' MLLW

BASIS OF BEARINGS:

CCS 83 ZONE VI
EPOCH 1991.35
GPS #1228

NO.	DESCRIPTION	SHT.	APPROVED	DATE

REVISIONS

W.O. NO. DPXXXXX
DWG. NO. DPHXXXXX

SHEET 1 OF 15

DGN FILE:

HORIZONTAL DATUM

COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE 6, 1983 NORTH AMERICAN DATUM (1991.35 EPOCH, O.C.S. GPS ADJUSTMENT).

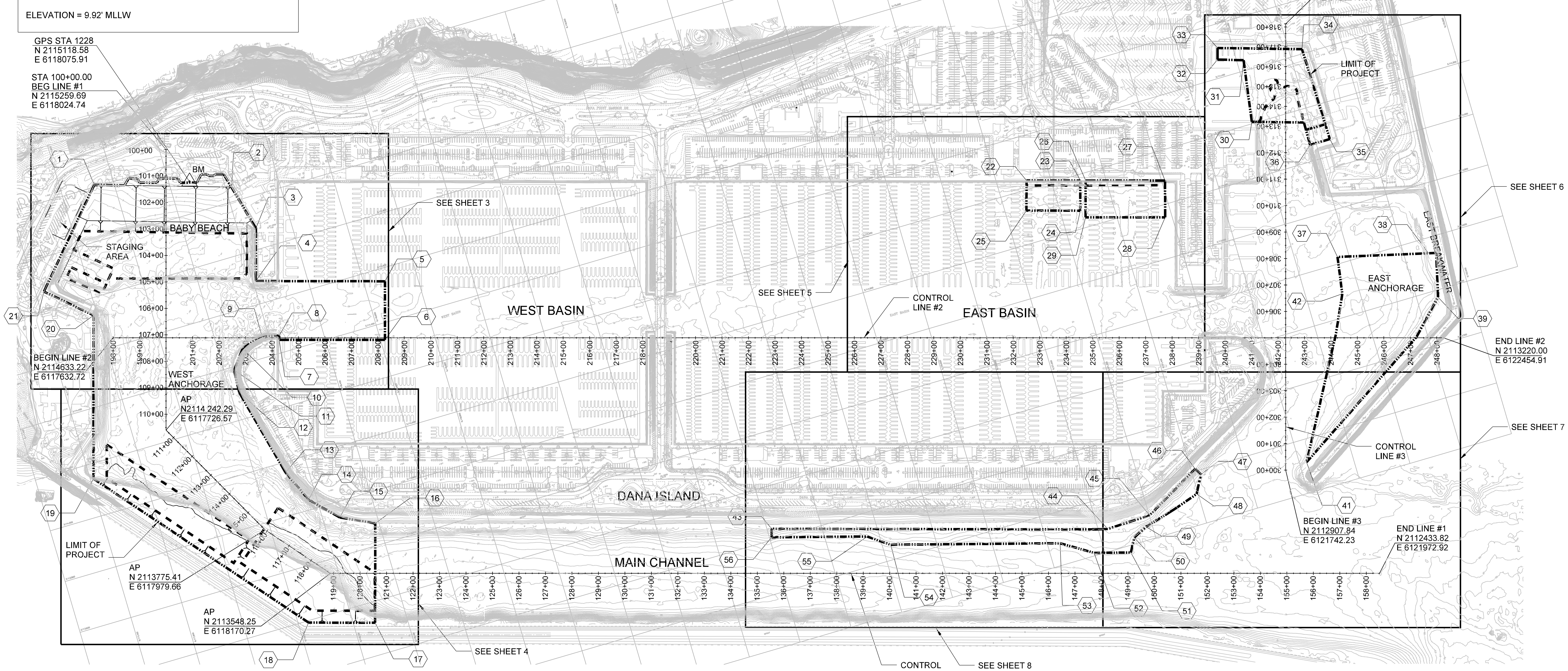
VERTICAL DATUM

POINT "NO3-72" BRASS DISK LOCATED BY THE SOUTH-WESTERLY END OF DANA POINT HARBOR DRIVE, SOUTHERLY FROM IT'S INTERSECTION WITH COVE ROAD, APPROXIMATELY 300 FEET NORTHERLY FROM THE CENTERLINE OF PIER ON THE TOP OF CONCRETE BULKHEAD.

ELEVATION = 9.92' MLLW

NOTES:

1. ALL ELEVATIONS ARE RELATIVE TO THE MLLW DATUM, IN FEET.
2. A PRECONSTRUCTION SURVEY WILL BE CONDUCTED BY THE COUNTY PRIOR TO DREDGING AND RESULTS WILL BE PROVIDED TO THE CONTRACTOR ELECTRONICALLY IN MICROSTATION (.DGN) FORMAT.
3. LIMITS AND EXTENT OF DREDGING ARE BASED ON CONDITIONS AT TIME OF SURVEY (APRIL 2013) AND MAY INCREASE OR DECREASE BASED ON PRECONSTRUCTION CONDITIONS.
4. SILT CURTAINS, OR OTHER APPROVED METHODS, SHALL BE USED IF TURBIDITY LIMITATIONS AS DETERMINED BY THE SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD ARE EXCEEDED.
5. DREDGING OPERATIONS SHALL NOT PREVENT NAVIGATION, UNLESS APPROVED BY THE COUNTY.



LIMIT OF PROJECT

	NORTHING	EASTING
1	2115207.91	6117726.90
2	2115054.64	6118223.14
3	2114878.81	6118266.88
4	2114687.66	6118210.26
5	2114549.65	6118678.37
6	2114337.20	6118616.11
7	2114449.52	6118232.87
8	2114464.38	6118237.23
9	2114482.80	6118174.36
10	2114456.68	6118091.17
11	2114388.02	6118037.41
12	2114300.99	6118032.01
13	2113962.07	6118114.63
14	2113838.08	6118169.41

LIMIT OF PROJECT

	NORTHING	EASTING
15	2113740.76	6118263.78
16	2113682.19	6118386.03
17	2113321.61	6118279.83
18	2113392.55	6118038.97
19	2114143.02	6117411.81
20	2114735.67	6117586.29
21	2114874.45	6117431.37
22	2114233.10	6121110.88
23	2114175.91	6121306.02
24	2114067.00	6121273.91
25	2114124.50	6121078.86
26	2114170.29	6121325.22
27	2114085.97	6121612.92
28	2113952.56	6121574.52

LIMIT OF PROJECT

	NORTHING	EASTING
29	2114037.25	6121285.99
30	2114207.10	6121990.02
31	2114439.25	6122025.62
32	2114469.36	6121931.99
33	2114511.38	6121944.25
34	2114417.29	6122248.98
35	2114061.74	6122254.52
36	2114061.75	6122176.62
37	2113625.95	6122156.89
38	2113542.69	6122490.76
39	2113373.08	6122478.56
40	2113252.68	6122359.13
41	2112914.40	6121826.66
42	2113487.38	6122135.20

LIMIT OF PROJECT

	NORTHING	EASTING
43	2113240.93	6119816.74
44	2112883.63	6121035.08
45	2112888.22	6121201.75
46	2113008.49	6121415.82
47	2112981.71	6121430.36
48	2112915.89	6121394.59
49	2112850.79	6121175.82
50	2112823.74	6121121.70
51	2112773.31	6121093.76
52	2112811.23	6120960.07
53	2112882.15	6120847.14
54	2113056.61	6120232.07
55	2113111.55	6120155.24
56	2113210.09	6119807.83

LEGEND

- LIMIT OF DREDGING
- LIMIT OF PROJECT
- STAGING AREA
- NAVIGATION BUOY
- (-8.0') DESIGN DEPTH
- BM BENCH MARK (3-72)
- 24 PROJECT CONTROL POINT

200' 0 200' 400'
SCALE = 1" = 200'

7/25/2013 1:6:02 PM P:\8032-Dana Point Harbor Dredging\7. Design Information\CADD\SHEETS\8032D0002.dgn

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
ROBERT SHERWOOD, P.E.
MOFFATT & NICHOL
DATE

DESIGNED BY: XX
DRAWN BY: XX
CHECKED BY: XX
DRAWING NUMBER: XX
W.O. NO.
FILE NAME: XX
PLOT DATE: XX
SCALE: XX

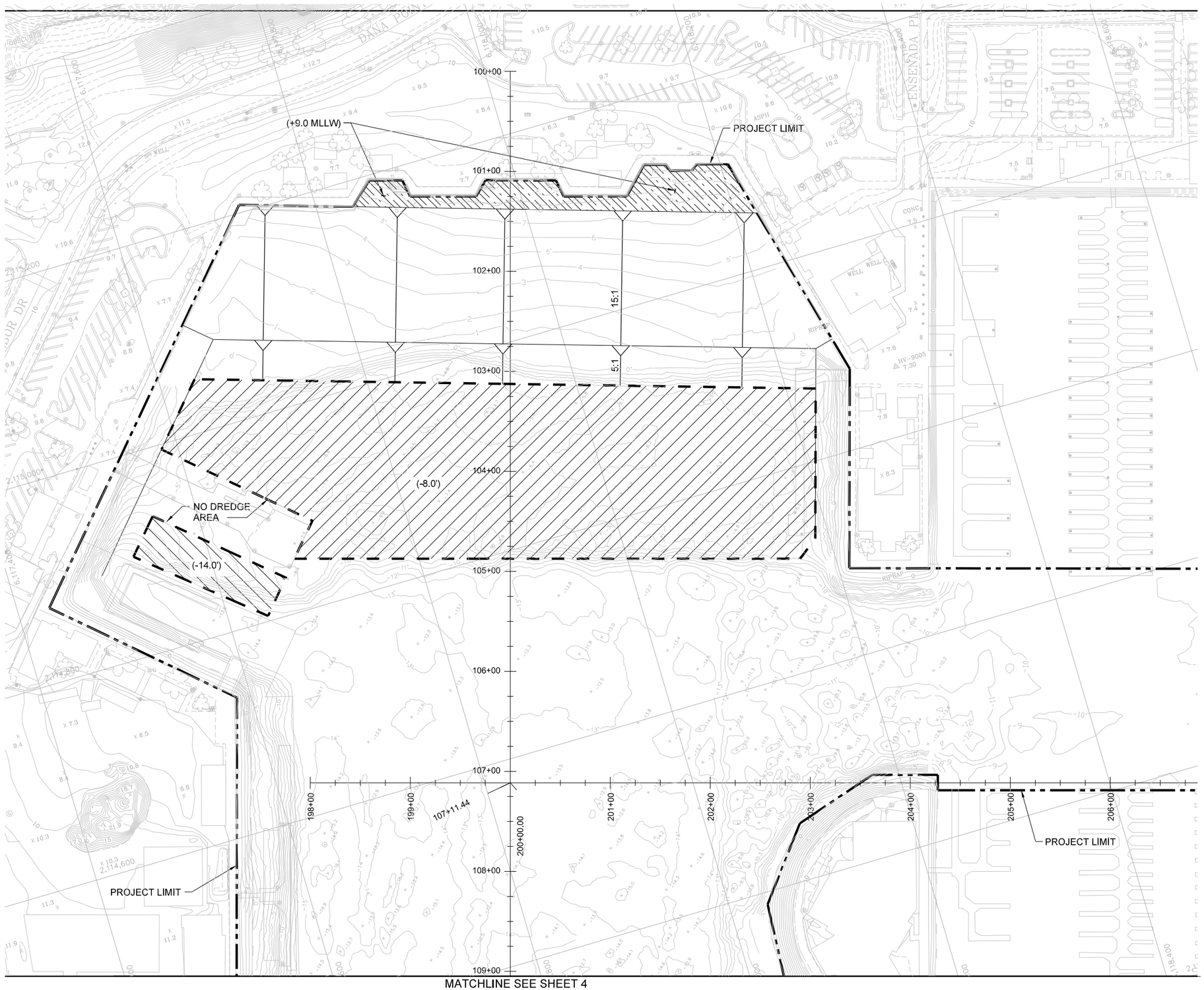
County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL 562 426-9551
FAX 562 424-7489

MAINTENANCE DREDGING OF DANA POINT HARBOR

PROJECT DATA AND SITE PLAN

SHEET
2
OF X



NOTES:

1. FOR PROJECT CONTROL POINTS SEE SHEET 2.
2. ALL ELEVATIONS ARE RELATIVE TO THE MLLW DATUM, IN FEET.
3. EXISTING SWIM BUOYS AND GROUND TACKLE TO BE MOVED BY COUNTY PRIOR TO WORK. CONTRACTOR SHALL NOTIFY COUNTY 5 DAYS PRIOR TO NEEDING SWIM BUOYS MOVED.
4. CONTRACTOR SHALL, AT A MINIMUM, PLACE TEMPORARY FENCE(S) AT OPENINGS TO THE BEACH TO PREVENT PUBLIC ACCESS TO THE BEACH. AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL PLACE AN OBSERVER AT THE BEACH TO PREVENT PUBLIC ACCESS.
5. UNLESS OTHERWISE SPECIFIED, DREDGE MATERIAL ON THIS SHEET SHALL BE DISPOSED OF AT LA-3 OCEAN DISPOSAL SITE.
6. HARD NATIVE MATERIAL HAS BEEN ENCOUNTERED WITHIN THE PAID OVERDEPTH PRISM. CONTRACTOR IS NOT REQUIRED TO DREDGE INTO HARD NATIVE MATERIAL AND THE EXISTENCE OF HARD NATIVE MATERIAL SHALL NOT BE THE BASIS OF A CLAIM BY THE CONTRACTOR. HARD MATERIALS WAS ENCOUNTERED IN PILGRIM MOORAGE AREA DURING LAST (2008/2009) DREDGE CYCLE.

LEGEND

- LIMIT OF PROJECT
- LIMIT OF DREDGING (TOE)
- (-8.0') DESIGN DEPTH
- AREA TO BE DREDGED TO -8' MLLW
- AREA TO BE DREDGED TO -14' MLLW SEE NOTE 6
- AREA TO BE FILLED TO +9' MLLW
- (16) PROJECT CONTROL POINT
- 5:1 HORIZONTAL : VERTICAL SLOPE

50' 0 50' 100'
SCALE = 1" = 50'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
ROBERT SHERWOOD, P.E.
NO. 61174, CIVIL
DATE

DESIGNED BY: RS/CP
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.:
FILE NAME: 8032000003
PLOT DATE: XX
SCALE: 1"=50'

County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 MLROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90808
TEL: 562 426-9551
FAX: 562 424-7689

MAINTENANCE DREDGING OF DANA POINT HARBOR

DREDGING PLAN

SHEET
3
OF X

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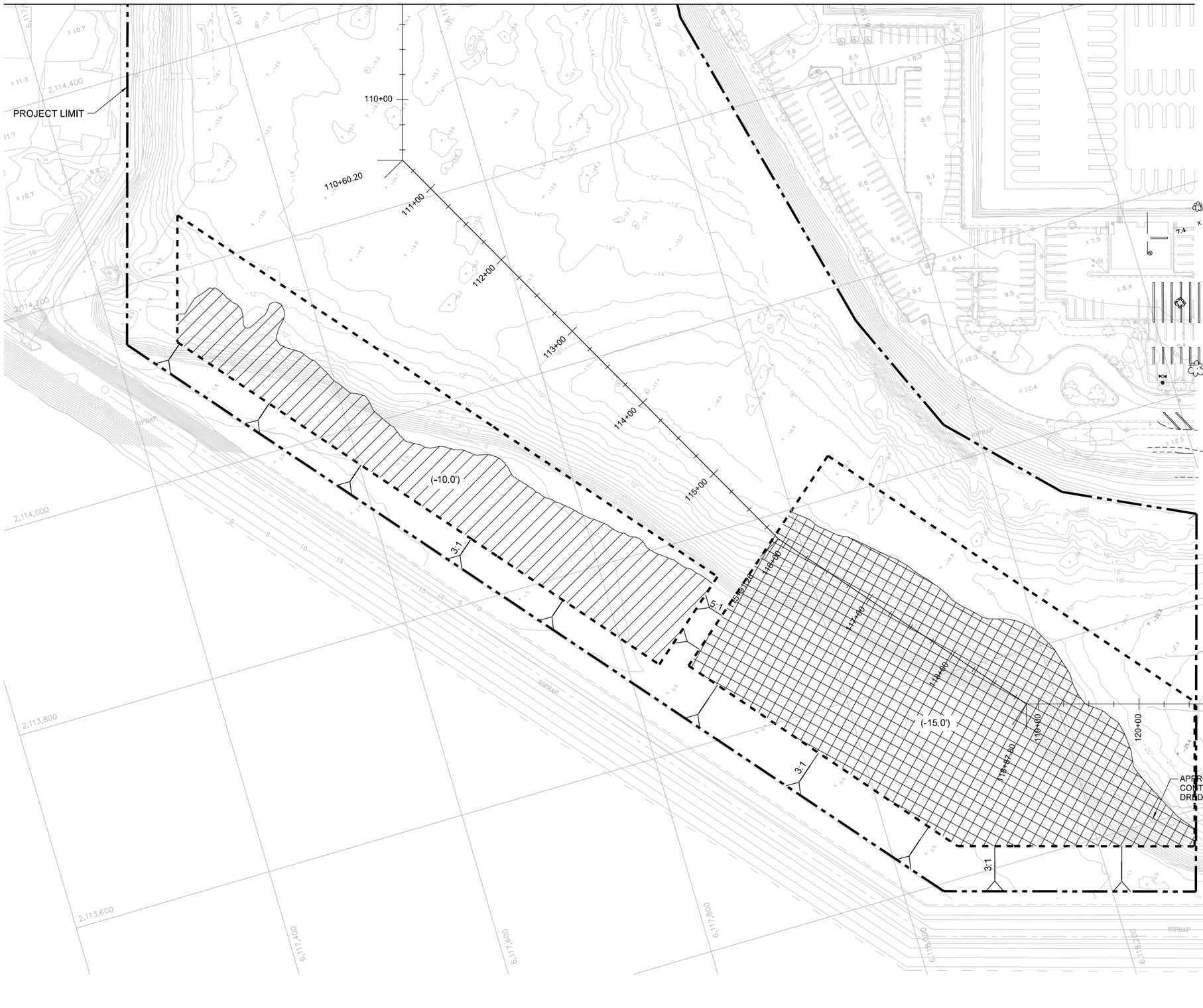
MATCHLINE SEE SHEET 3



50' 0 50' 100'
SCALE = 1" = 50'

NOTES:

1. FOR PROJECT CONTROL POINTS SEE SHEET 2
2. WATERSIDE ELEVATIONS WITHIN THE PROJECT LIMITS REFERENCE THE MLLW DATUM.
3. UNLESS OTHERWISE SPECIFIED DREDGE MATERIAL ON THIS SHEET SHALL BE USED FOR BEACH FILL.
4. DREDGE DISPOSAL PIPELINE SHALL BE SUBMERGED ON THE BOTTOM AND ALIGNMENT MARKED WITH BUOYS.
5. PRIOR TO DREDGING, CONTRACTOR SHALL PERFORM PRE-DREDGE DIVE SURVEY TO LOCATE POTENTIAL ARMOR STONE WITHIN DREDGING AREAS. DAMAGE TO THE CONTRACTOR'S EQUIPMENT AS A RESULT OF DREDGING IN THIS AREA SHALL NOT BE THE BASIS OF A CLAIM AGAINST THE COUNTY.
6. HARD NATIVE MATERIAL MAY BE WITHIN THE PAID OVERDEPTH PRISM. CONTRACTOR IS NOT REQUIRED TO DREDGE INTO HARD NATIVE MATERIAL AND THE EXISTENCE OF HARD NATIVE MATERIAL MAY NOT BETHE BASIS OF A CLAIM BY THE CONTRACTOR.

LEGEND

- LIMIT OF PROJECT
- LIMIT OF DREDGING
- (-8.0') DESIGN DEPTH
- AREA TO BE DREDGED TO -10' MLLW
- AREA TO BE DREDGED TO -15' MLLW
- 16 PROJECT CONTROL POINT
- 5:1 HORIZONTAL : VERTICAL SLOPE

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
MOFFATT & NICHOL

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.:
FILE NAME: 8032000004
SCALE: 1"=50'
PLOT DATE: XX

County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90909
TEL: 562.426-9551
FAX 562.426-9489

MAINTENANCE DREDGING OF DANA POINT HARBOR

DREDGING PLAN

SHEET
4
OF X

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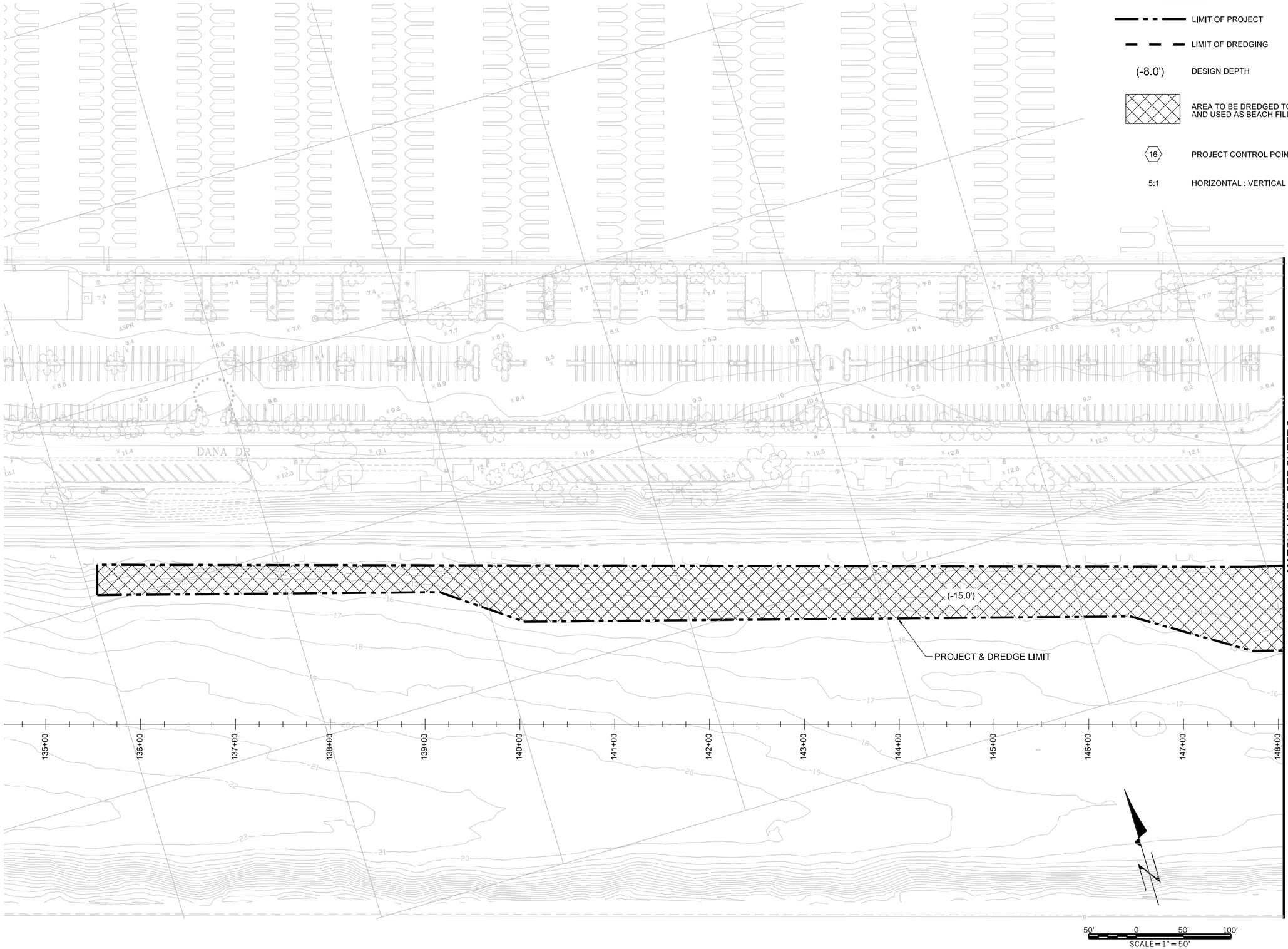

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
NO. 61134, CIVIL

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.
FILE NAME: 8032000D007
PLOT DATE: XX
SCALE: 1"=50'

County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL: 562 426-9551
FAX 562 424-1489

MAINTENANCE DREDGING OF DANA POINT HARBOR

DREDGING PLAN

SHEET
5
OF X

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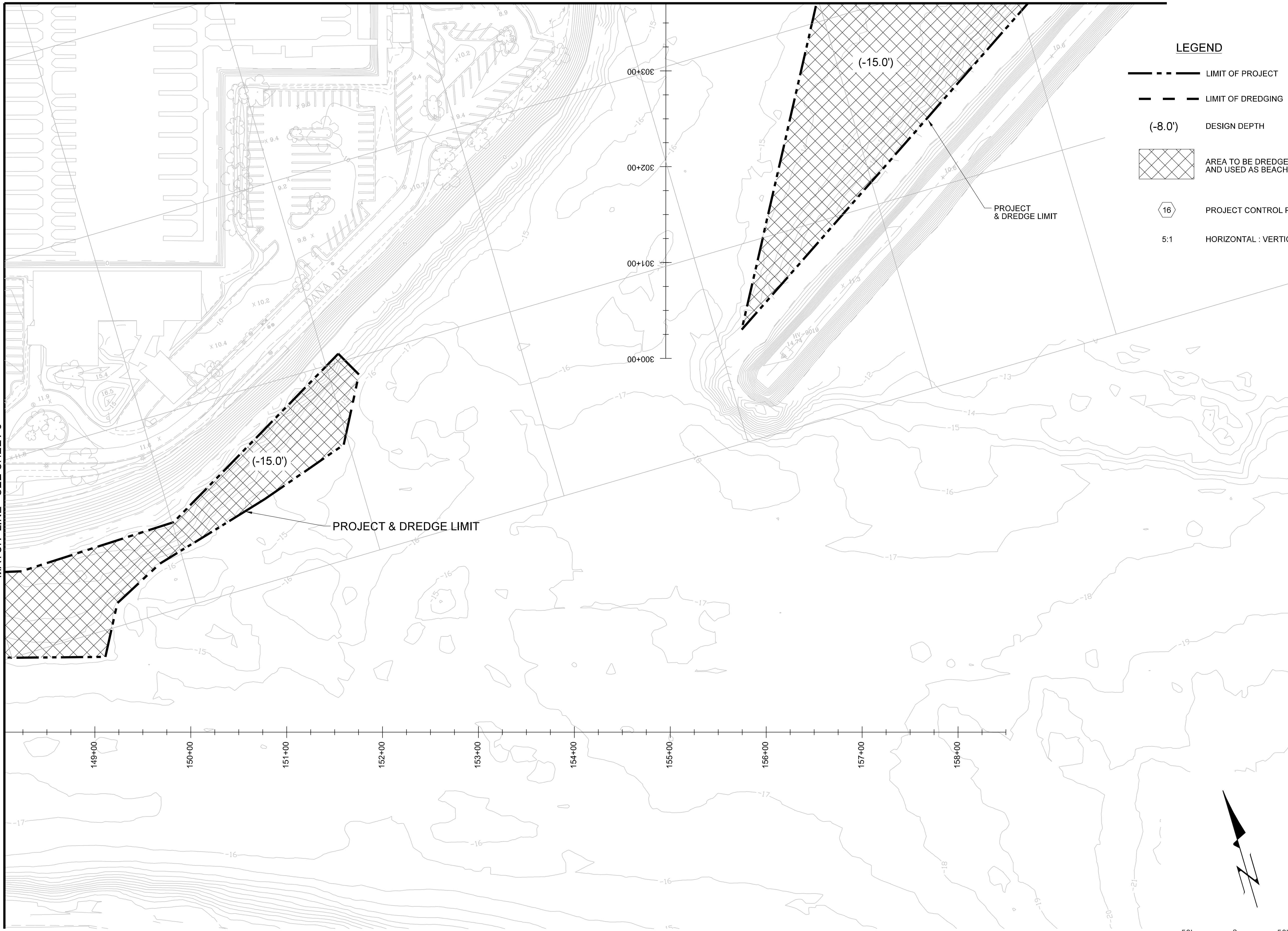
MATCH LINE - SEE SHEET 7



LEGEND

— · —	LIMIT OF PROJECT
— —	LIMIT OF DREDGING
(-8.0')	DESIGN DEPTH
(cross-hatch)	AREA TO BE DREDGED TO -15 MLLW AND USED AS BEACH FILL
16	PROJECT CONTROL POINT
5:1	HORIZONTAL : VERTICAL SLOPE

50' 0 50' 100'
SCALE = 1" = 50'

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COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
MOFFATT & NICHOL

DATE

County of Orange
OC Public Works

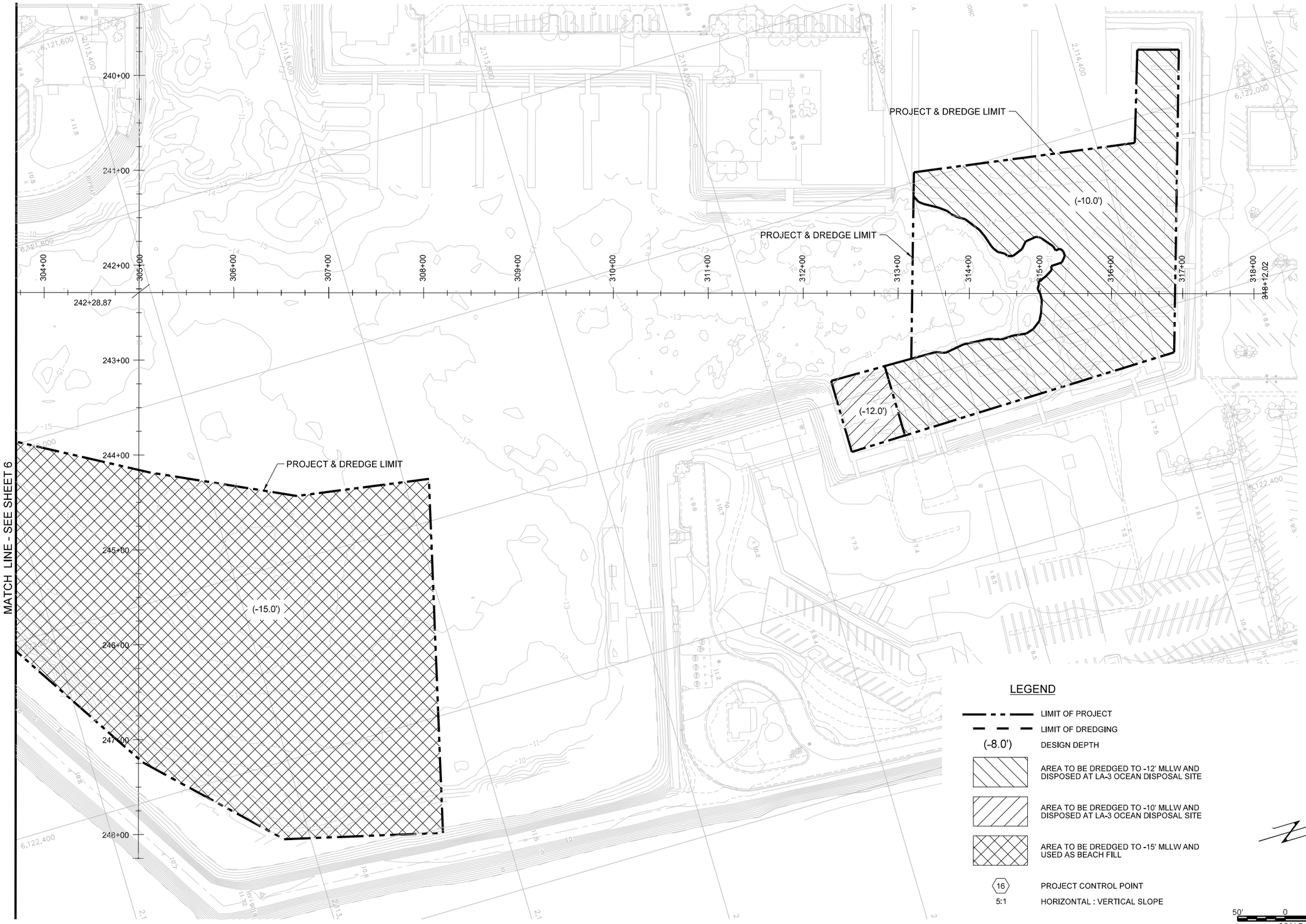
PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL. 562 426-9551
FAX 562 424-7489

DESIGNED BY: RS/CF	
DRAWN BY: GL	CHECKED BY: RB/KG
DRAWING NUMBER: XX	W.O. NO.
FILE NAME: 803200D007	
PLOT DATE: XX	SCALE: 1"=50'

MAINTENANCE DREDGING OF DANA POINT HARBOR

DREDGING PLAN

SHEET
6
OF X



MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
MOFFATT & NICHOL

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.: XX
FILE NAME: XX
PLOT DATE: XX
SCALE: 1"=50'

County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL: 562 426-9551
FAX: 562 -426-9559

MAINTENANCE DREDGING OF DANA POINT HARBOR

DREDGING PLAN

SHEET
7
OF X

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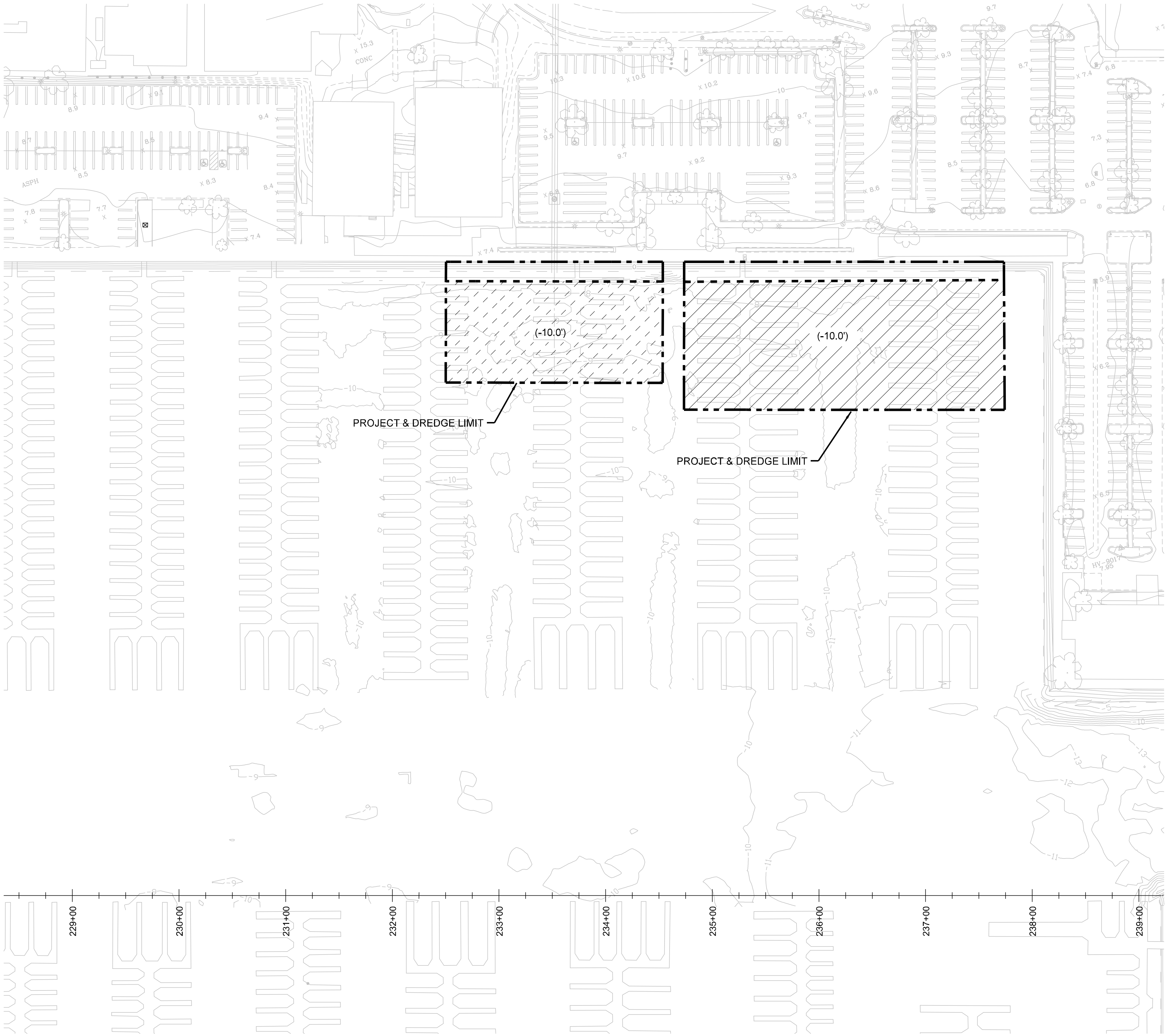

NOTES:

1. FOR PROJECT CONTROL POINTS SEE SHEET
2. ALL ELEVATIONS ARE RELATIVE TO THE MLLW DATUM, IN FEET.
3. UNLESS OTHERWISE SPECIFIED DREDGE MATERIAL ON THIS SHEET SHALL BE DISPOSED OF AT LA-3 OCEAN DISPOSAL SITE OR APPROVED UPLAND LANDFILL SITE.
4. HARD NATIVE MATERIAL MAY BE WITHIN THE PAID OVERDEPTH PRISM. CONTRACTOR IS NOT REQUIRED TO DREDGE INTO HARD NATIVE MATERIAL AND THE EXISTENCE OF HARD NATIVE MATERIAL MAY NOT BE THE BASIS OF A CLAIM BY THE CONTRACTOR.
5. REQUEST MOVEMENT OF MOORED BOATS IN DREDGING AREA A MINIMUM OF 5 WORKING DAYS PRIOR TO DREDGING. BOATS WILL BE MOVED BY OTHERS. THE MAXIMUM NUMBER OF BOATS THAT WILL BE MOVED AT ANY ONE TIME WILL BE 10.

LEGEND

- LIMIT OF PROJECT
- LIMIT OF DREDGING
- (-8.0') DESIGN DEPTH
- AREA TO BE DREDGED TO -10' MLLW AND DISPOSED AT LA-3 OCEAN DISPOSAL SITE
- AREA TO BE DREDGED TO -10' MLLW AND DISPOSED AT APPROVED UPLAND LANDFILL AREA

50' 0 50'

SCALE = 1" = 50'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
MOFFATT & NICHOL

DATE

County of Orange
OC Public Works

DESIGNED BY: RS/CP
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.
FILE NAME: 8032000005
PLOT DATE: XX
SCALE: 1"=50'

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL 562 426-9551
FAX 562 424-7489

MAINTENANCE DREDGING OF DANA POINT HARBOR

DREDGING PLAN

SHEET 8 OF X

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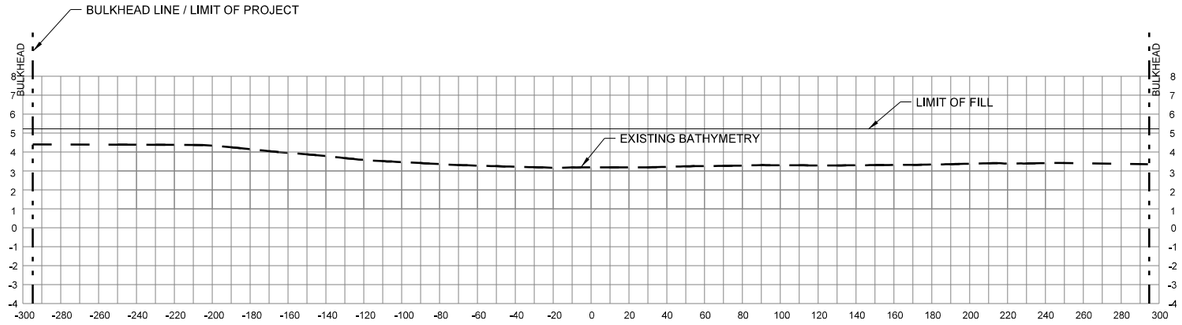
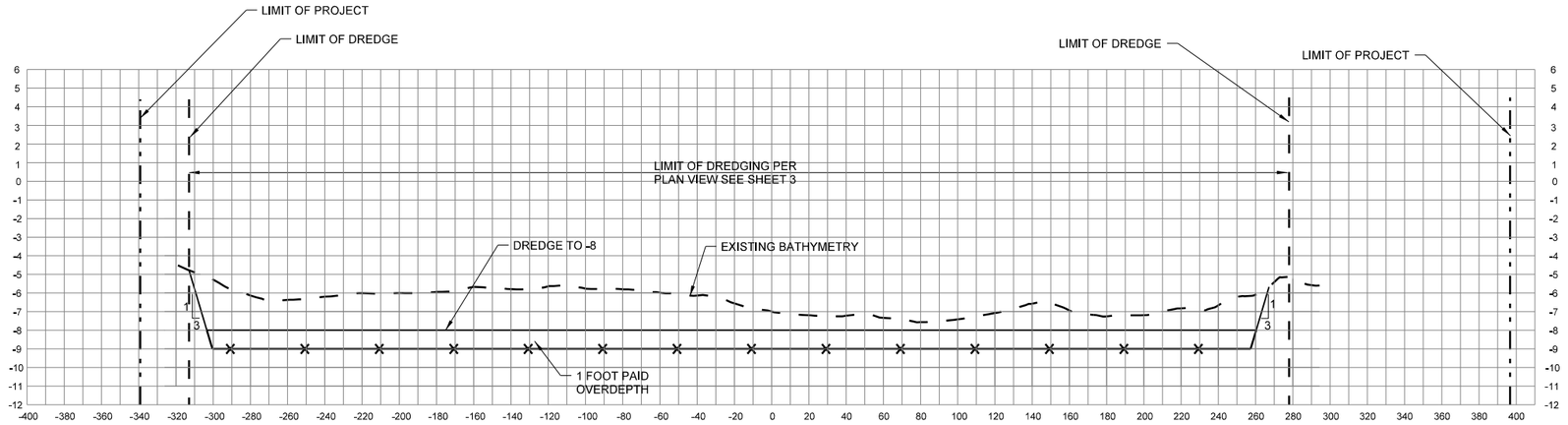
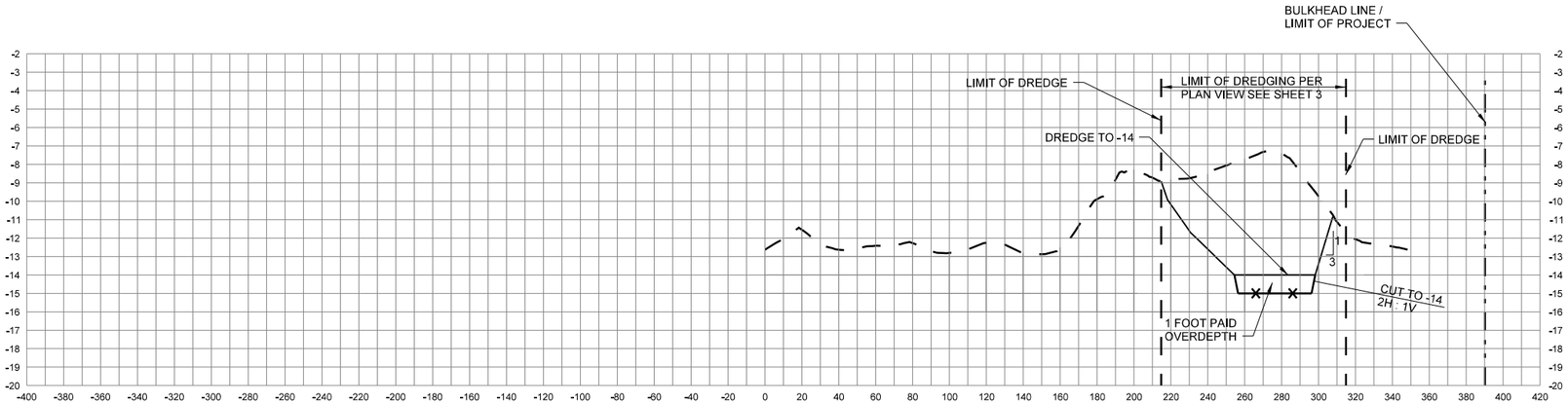


102+00
HORIZ= 1"=4'
VERT = 1"=40'



104+00
HORIZ= 1"=4'
VERT = 1"=40'



105+50
HORIZ= 1"=4'
VERT = 1"=40'

SCALE =1"=4'

SCALE =1"=40'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
NO. 61713 & EXPIRES

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.: XX
FILE NAME: 8032000004
SCALE: 1"=40'
PLOT DATE: XX

County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL: 562 426-9551
FAX 562 426-9559

MAINTENANCE DREDGING OF DANA POINT HARBOR

TYPICAL DREDGING CROSS SECTION-1

SHEET
9
OF X

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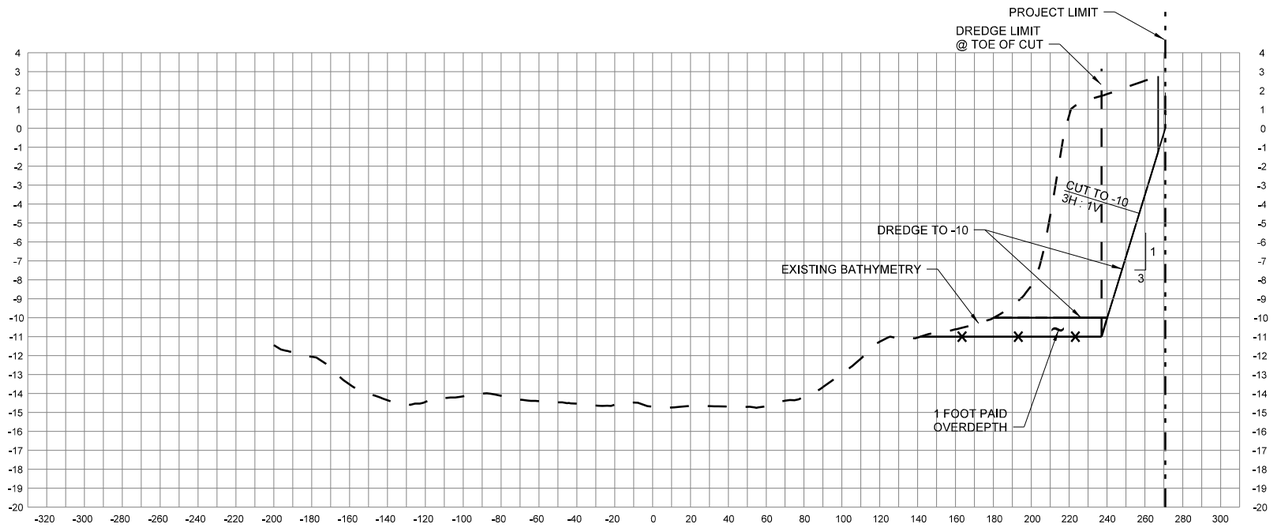
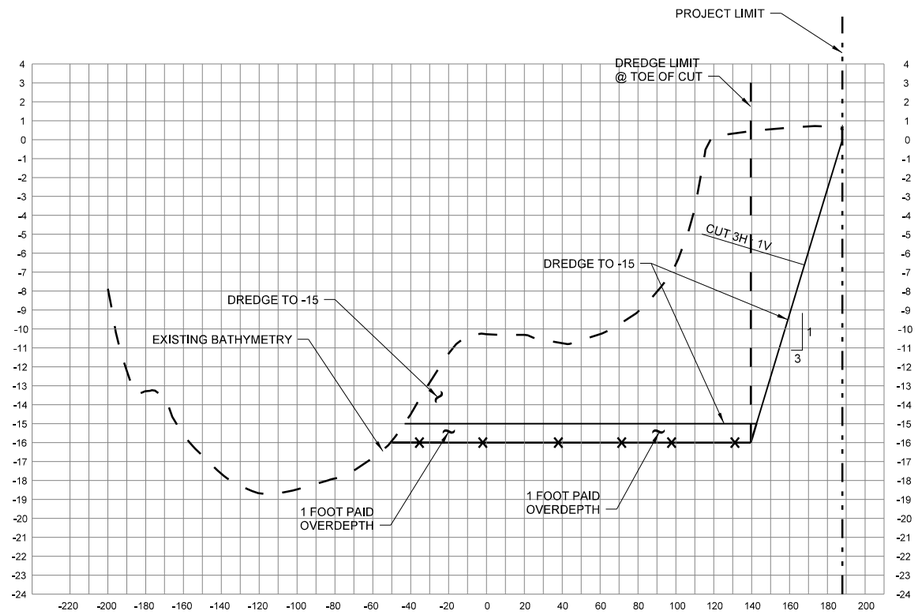
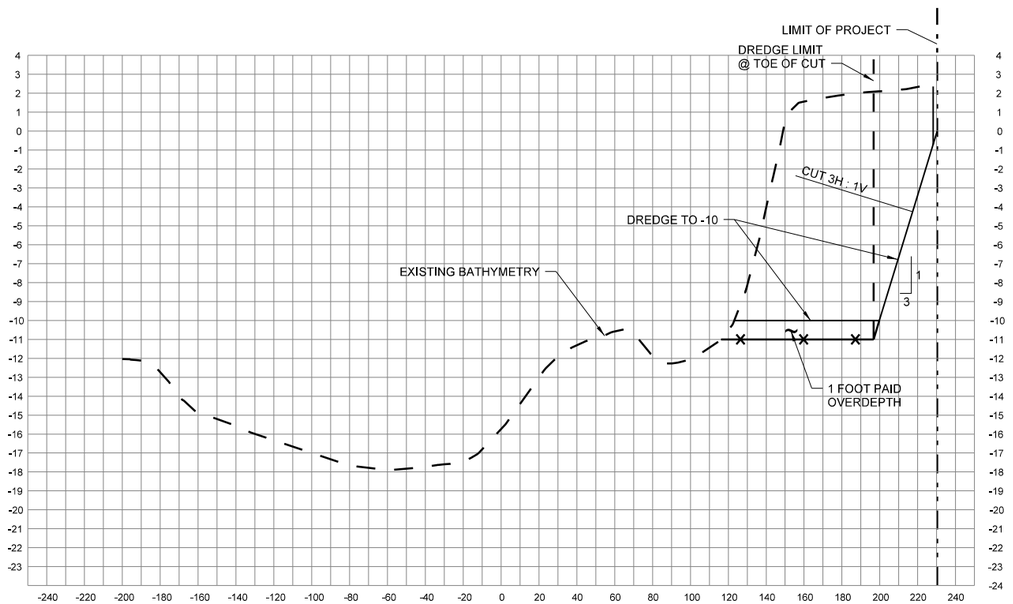


112+00
HORIZ= 1"=4'
VERT = 1"=40'



116+00
HORIZ= 1"=4'
VERT = 1"=40'



114+00
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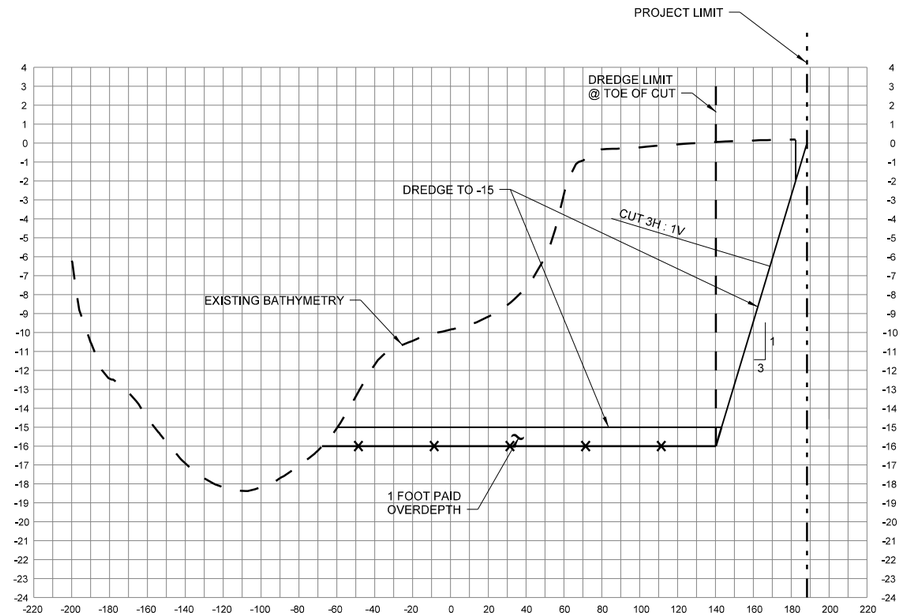
VERT = 1"=40'



118+00
HORIZ= 1"=4'
VERT = 1"=40'

4 0 4 8
SCALE =1"=4'

40 0 40 80
SCALE =1"=40'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
NO. 61134, CIVIL

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.: XX
FILE NAME: 803200D004
SCALE: 1"=50'
PLOT DATE: XX

County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90909
TEL: 562 426-9551
FAX: 562 426-9689

MAINTENANCE DREDGING OF DANA POINT HARBOR

TYPICAL DREDGING CROSS SECTION-2

SHEET
10
OF X

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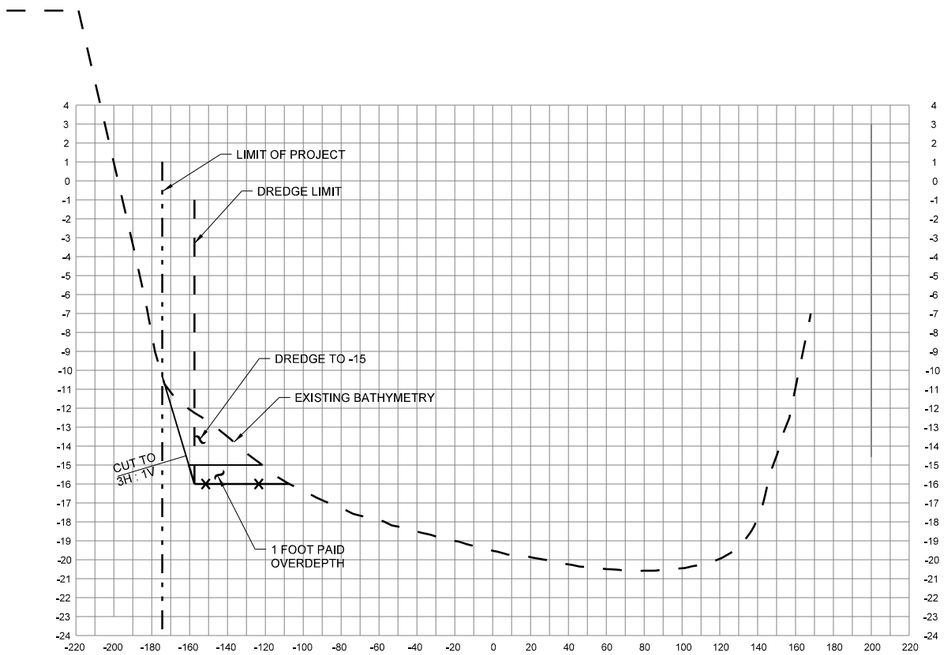

141+00
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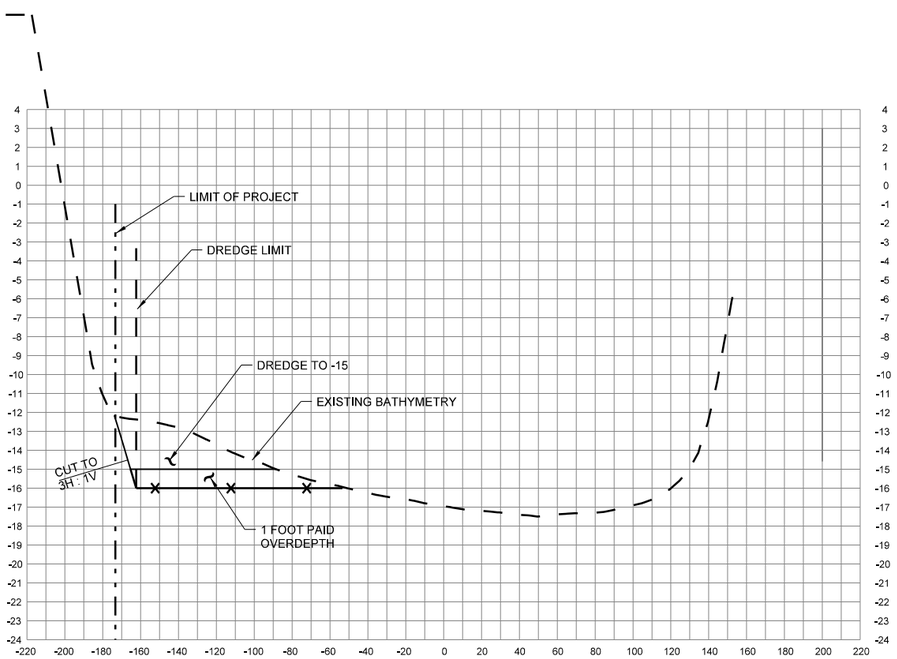
VERT = 1"=40'



148+00
HORIZ= 1"=4'
VERT = 1"=40'

4 0 4 8
SCALE =1"=4'

40 0 40 80
SCALE =1"=40'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
NO. 61134, CIVIL

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.:
FILE NAME: 803200D004
PLOT DATE: XX
SCALE: 1"=50'

County of Orange
OC Public Works

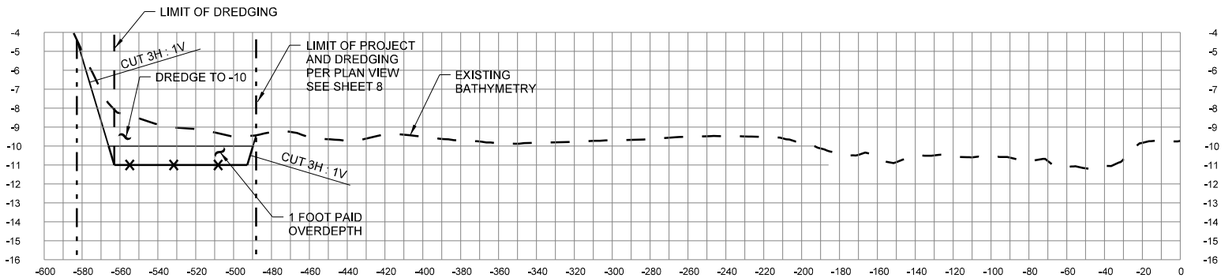
PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL 562.426-9551
FAX 562.424-1669

MAINTENANCE DREDGING OF DANA POINT HARBOR

TYPICAL DREDGING CROSS SECTION-3

SHEET
11
OF X

7/25/2013 1:54:46 PM P:\8032-Dana Point Harbor Dredging\7- Design_Information\CADD\SHEETS\803200D011.dgn



233+00
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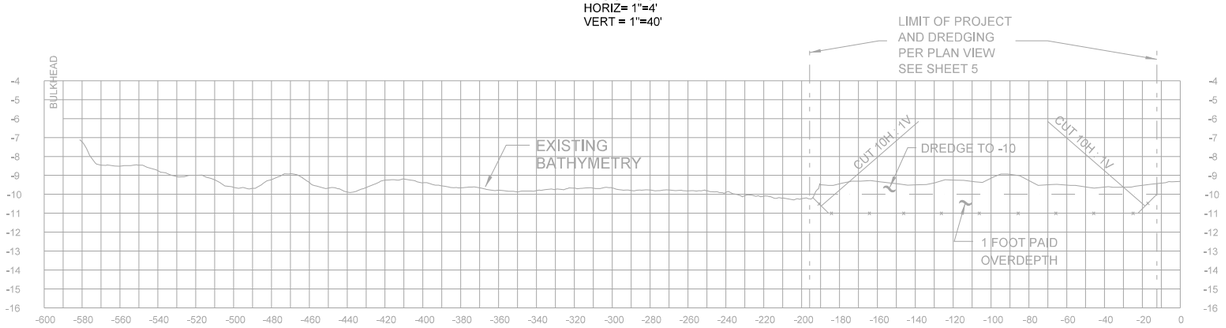
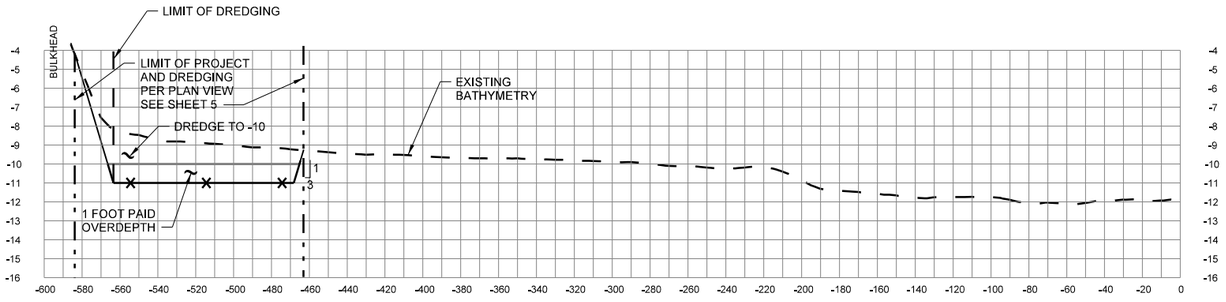
VERT = 1"=40'



233+62.47 @ CL OF SD



236+50
HORIZ= 1"=4'
VERT = 1"=40'

4 0 4 8
SCALE =1"=4'

40 0 40 80
SCALE =1"=40'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
NOT FOR BIDDING

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.
FILE NAME: 8032000004
SCALE: 1"=50'
PLOT DATE: XX

County of Orange
OC Public Works

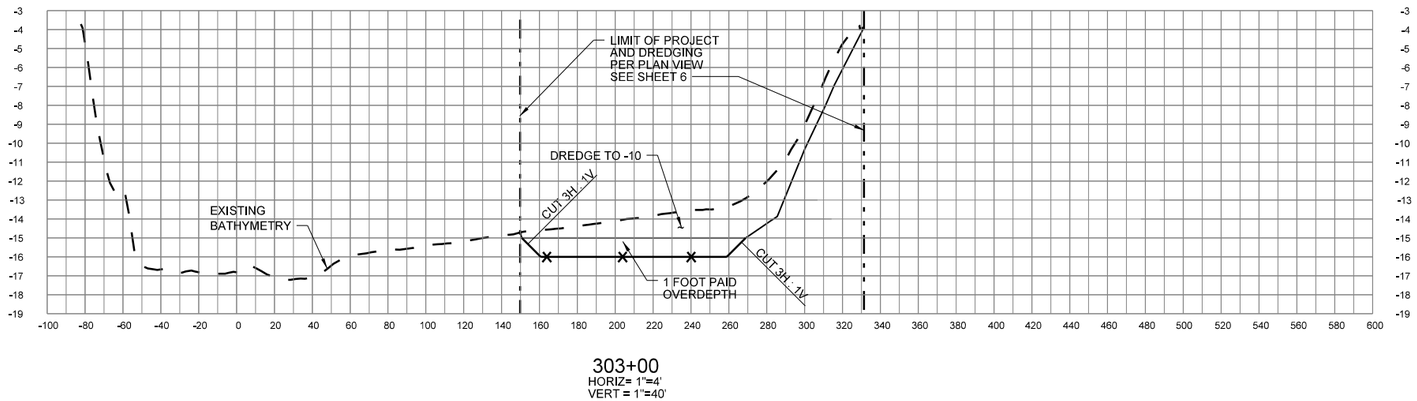
PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL: 562 426-9551
FAX 562 424-1489

MAINTENANCE DREDGING OF DANA POINT HARBOR

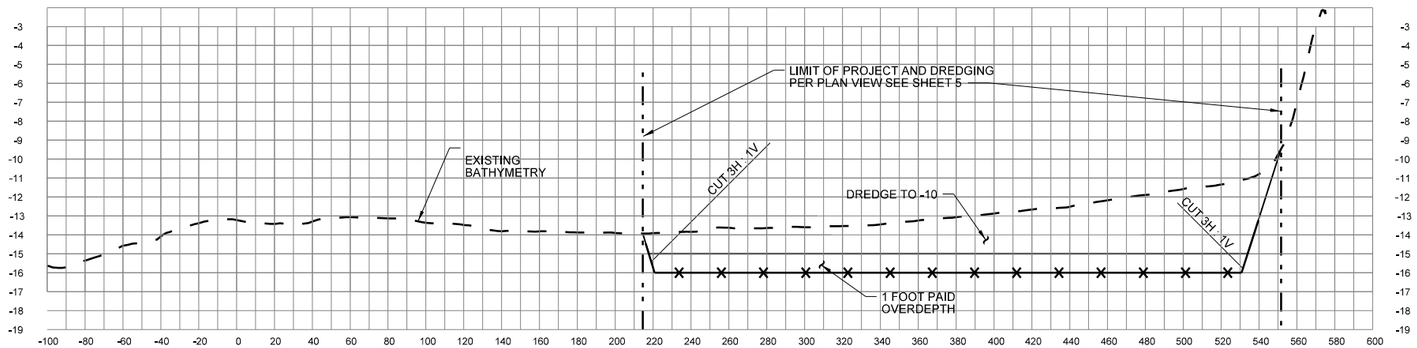
TYPICAL DREDGING CROSS SECTION-4

SHEET
12
OF X

7/25/2013 1:27:37 PM P:\8032-Dana Point Harbor Dredging\7_ Design_Information\CADD\SHEETS\8032000D012.dgn



303+00
HORIZ= 1"=4'
VERT = 1"=40'



307+50
HORIZ= 1"=4'
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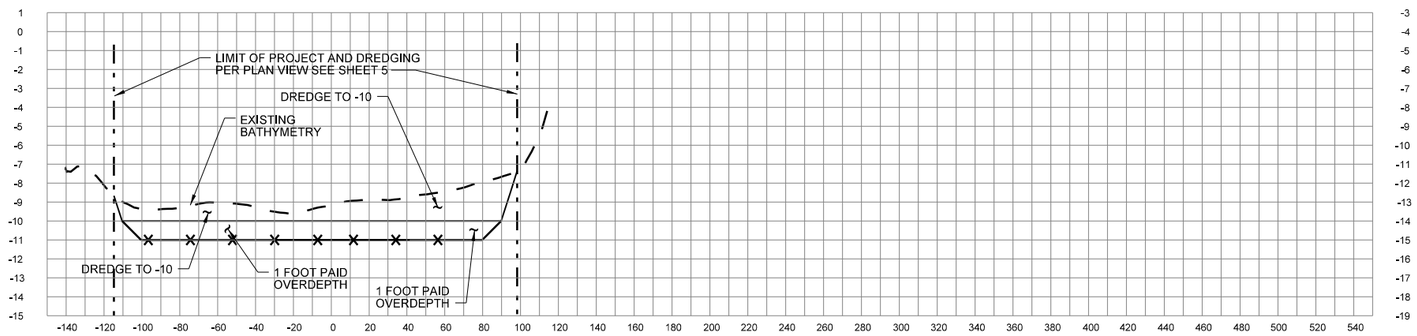


315+00
HORIZ= 1"=4'
VERT = 1"=40'

4 0 4 8
SCALE =1"=4'

40 0 40 80
SCALE =1"=40'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
NO. 61174, CIVIL

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
W.O. NO.:
DRAWING NUMBER: XX
FILE NAME: 803200D004
SCALE: 1"=40'
PLOT DATE: XX

County of Orange
OC Public Works

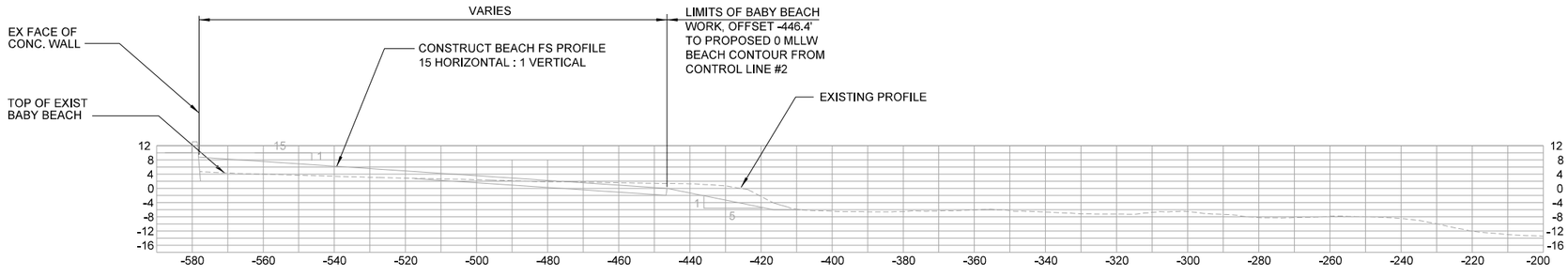
PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL: 562 426-9551
FAX: 562 426-9559

MAINTENANCE DREDGING OF DANA POINT HARBOR

TYPICAL DREDGING CROSS SECTION-5

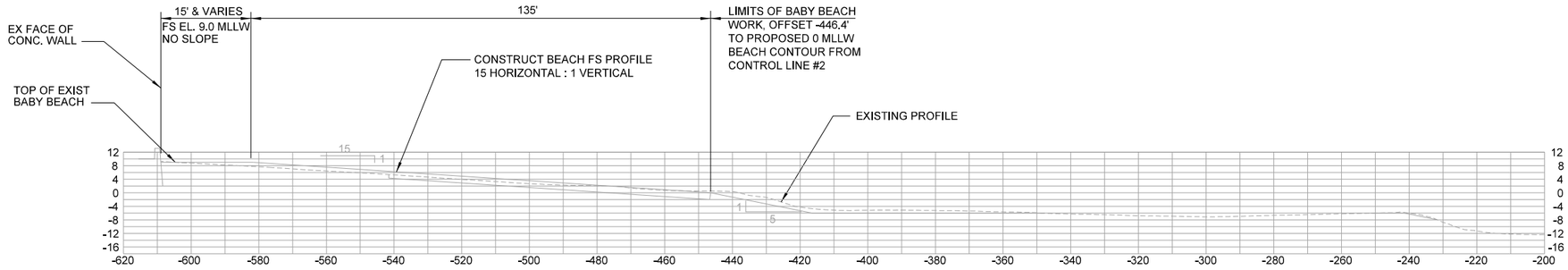
SHEET
13
OF X

7/25/2013 2:02:49 PM P:\8032-Dana Point Harbor Dredging\7_ Design_Information\CADD\SHEETS\803200D013.dgn



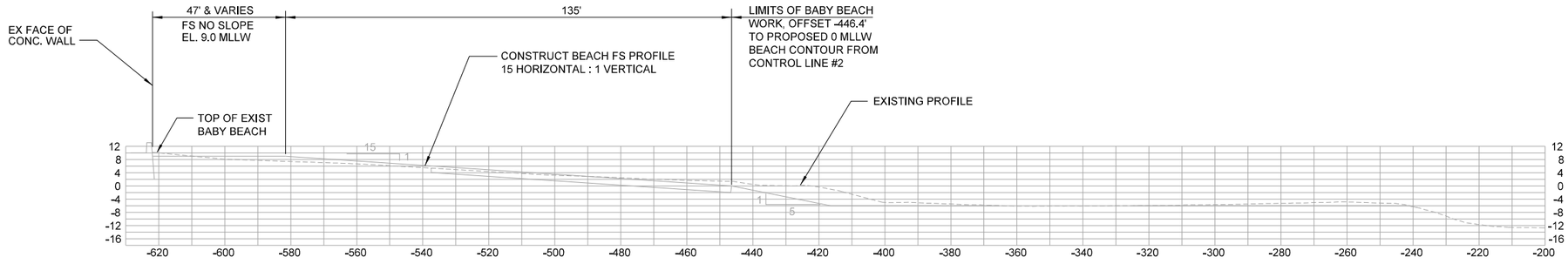
A 3 | 11 "BABY" BEACH PROFILE - STA 198+50

HORIZ= 1"=20'
VERT = 1"=20'



B 3 | 11 "BABY" BEACH PROFILE - STA 200+00

HORIZ= 1"=20'
VERT = 1"=20'



C 3 | 11 "BABY" BEACH PROFILE - STA 201+50

HORIZ= 1"=20'
VERT = 1"=20'

20 0 20 40
SCALE:1" = 20'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
NOTARY & SEAL

DATE

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
W.O. NO.:
DRAWING NUMBER: XX
FILE NAME: 803200P004
SCALE: 1"=20'
PLOT DATE: XX

County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL: 562 426-9551
FAX: 562 426-9559

MAINTENANCE DREDGING OF DANA POINT HARBOR

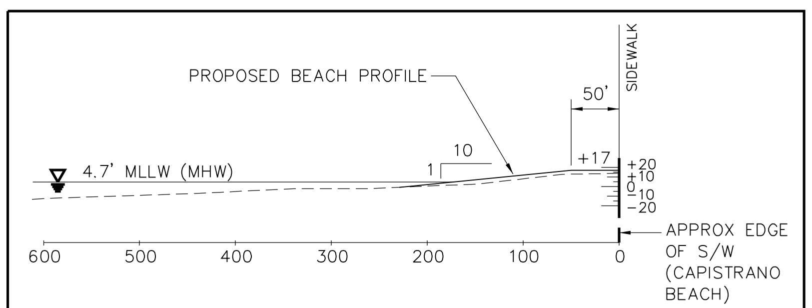
BABY BEACH FILL PROFILES

SHEET
14
OF X

7/25/2013 1:35:38 PM P:\8032-Dana Point Harbor Dredging\7_Design_Information\CADD\SHEETS\803200D014.dgn

PLAN

1"=200'



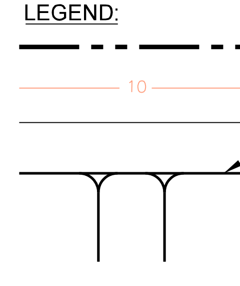
SECTION A

1"=100'

NOTE:

1. ELEVATIONS ARE APPROXIMATE AND REFERENCE MLLW.
2. A PRECONSTRUCTION SURVEY WILL BE CONDUCTED BY THE COUNTY PRIOR TO DREDGING AND RESULTS WILL BE PROVIDED TO THE CONTRACTOR ELECTRONICALLY IN MICROSTATION (.DGN) FORMAT.
3. DREDGE DISPOSAL PIPE DISCHARGE OUTLET SHALL REMAIN ABOVE WAVE ACTION AT ALL TIMES AND ABOVE ELEVATION 0' MLLW.
4. CONTRACTOR SHALL GRADE AND/OR ADJUST DISPOSAL PIPE TO OBTAIN A GENTLE BEACH CROSS-SECTION. ENGINEER WILL REQUIRE ADDITIONAL METHODS IF PARK STAFF ARE NOT SATISFIED WITH THE FINAL CROSS-SECTION.
5. DISPOSAL PIPE SHALL BE BURIED OR LOCATED TO PROVIDE UNOBSTRUCTED PUBLIC ACCESS TO AND FROM THE BEACH AS DIRECTED BY THE ENGINEER AND PARK STAFF.
6. CONTRACTOR SHALL PROVIDE A FLAGMAN ON THE BEACH AT ALL TIMES DURING DISCHARGE TO COORDINATE WITH PARK STAFF AND TO DIRECT THE PUBLIC AWAY FROM THE DISCHARGE LOCATION.
7. CONTRACTOR SHALL SUBMIT A DISCHARGE PLAN TO THE ENGINEER FOR APPROVAL. DISCHARGE PLAN SHALL, AT A MINIMUM, INCLUDE SIZE OF DISCHARGE PIPE, METHOD FOR PROVIDING UNOBSTRUCTED PUBLIC ACCESS TO AND FROM THE BEACH, AND METHOD FOR OBTAINING FINAL BEACH PROFILE.

LEGEND:



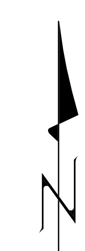
LIMIT OF PROJECT

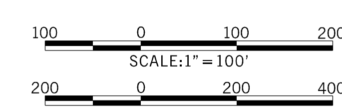
EXISTING CONTOUR

PROPOSED FILL DESIGN

TOP OF SLOPE

HORIZONTAL : VERTICAL SLOPE





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COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

ROBERT SHERWOOD, P.E.
MOFFATT & NICHOL

DATE

County of Orange
OC Public Works

PREPARED BY:
moffatt & nichol
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CALIFORNIA 90806
TEL. 562 426-9551
FAX 562 424-7489

DESIGNED BY: RS/CF
DRAWN BY: GL
CHECKED BY: RB/KG
DRAWING NUMBER: XX
W.O. NO.
FILE NAME: 803200D004
PLOT DATE: XX
SCALE: 1"=50'

MAINTENANCE DREDGING OF DANA POINT HARBOR

CAPISTRANO BEACH FILL PLAN (ALTERNATIVE A)

SHEET

15

OF X