NOTICE FOR FILING AGENCY PROTESTS
United States Coast Guard Ombudsman Program

It is the policy of the United States Coast Guard (USCG) to issue solicitations and make contract awards in a fair and timely manner. The Ombudsman Program for Agency Protests (OPAP) was established to investigate agency protest issues and resolve them without expensive and time-consuming litigation. OPAP is an independent reviewing authority that is empowered to grant a prevailing protester essentially the same relief as the Government Accountability Office (GAO).

Interested parties are encouraged to seek resolution of their concerns within the USCG as an Alternative Dispute Resolution (ADR) forum rather than filing a protest with the GAO or some external forum. Interested parties may seek resolution of their concerns informally or opt to file a formal agency protest with the Contracting Officer or Ombudsman.

Informal Forum with the Ombudsman. Interested parties who believe a specific USCG procurement is Unfair or otherwise defective should first direct their concerns to the applicable Contracting Officer. If The Contracting Officer is unable to satisfy their concerns, interested parties are encouraged to contact the U.S. Coast Guard Ombudsman for Agency Protests. Under this informal process the agency is not required to suspend contract award performance.Use of an informal forum does not suspend any time requirement for filing a protest with the agency or other forum. In order to ensure a timely response, interested parties should provide the following Information to the Ombudsman: solicitation/contract number, contracting office, Contracting Officer, and solicitation closing date (if applicable).

Formal Agency Protest with the Ombudsman. Prior to submitting a formal agency protest, protesters must first use their best efforts to resolve their concerns with the Contracting Officer through open and frank discussions. Ifthe protester's concerns are unresolved, an Independent Review is available by the Ombudsman. The protester may file a formal agency protest to either the Contracting Officer or as an alternative to that, the Ombudsman under the OPAP program. Contract award or performance will be suspended during the protest period unless contract award or performance is justified, in writing, for urgent and compelling reasons or is determined in writing to be in the best interest of the Government. The agency's goal is to resolve protests in less than 35 calendar days from the date of filing. Protests shall include the information set forth in FAR 33.l03(d)(2). If the protester fails to submit the required information, resolution of the protest may be delayed or the protest may be dismissed. To be timely protests must be filed within the period specified in FAR 33.103(e). Formal protests filed under the OPAP program should be submitted electronically to OPAP@uscg.mil and the Contracting Officer or by hand delivery to the Contracting Officer.

Election of Forum. After an interested party protests a Coast Guard procurement to the Contracting Officer or the Ombudsman, and while the protest is pending, the protester agrees not to file a protest with the GAO or other external forum. If the protest is filed with an external forum, the agency protest will be dismissed.

The Ombudsman Hotline telephone number is 202.372.3695.

U.S. Department of Homeland Security
United States Coast Guard

Commanding Officer
United States Coast Guard
Civil Engineering Unit Oakland

1301 Clay Street, Suite 700N
Oakland, CA 94612-5203
Staff Symbol: CN
Phone: (510) 637-5586
Fax: (510) 637-5728

4200
September 30, 2015

TO ALL PROSPECTIVE OFFERORS:

Subject: REQUEST FOR PROPOSAL, HSCG88-15-R-PQQ152, REPAIR INDUSTRIAL WHARF AT BASE LOS ANGELES/LONG BEACH, SAN PEDRO CALIFORNIA (PSN 5337223) UNDER THE REGIONAL MULTIPLE AWARD CONSTRUCTION CONTRACT FOR REGIONS 11 AND 13

Gentlemen/Madam:

Please furnish your price proposal for all labor, material, and equipment necessary to accomplish the project described in the enclosed specifications and drawings entitled:

REPAIR INDUSTRIAL WHARF AT BASE LOS ANGELES/LONG BEACH, SAN PEDRO CALIFORNIA (PSN 5337223)

1. Site Visit: A pre-proposal site visit is scheduled for ***10:00 AM on 15 October 2015*** at 1001 S. Seaside Ave, San Pedro, CA 90731. ****THIS IS A ONE TIME PRE-PROPOSAL SITE VISIT; NO OTHER TIME FOR A SITE VISIT WILL BE ALLOWED.**** It is encouraged that you visit the site prior to sending in your proposal, in order to ascertain the general and local conditions that might affect the work or its costs. If you plan on attending the site visit, be sure to provide company name, company address with phone number and name(s) of individuals that will be attending by ***13 October 2015***. The Coast Guard will not accept any requests after ***13 October 2015***. Send your information to Lt John Waters at john.t.waters@uscg.mil

2. Magnitude of construction: $1,000,000 to $5,000,000.

3. Bond Requirements:

A. Payment and Performance Bonds.

(1) Within 10 days of award of a delivery order the contractor shall provide good and sufficient surety or sureties acceptable to the Government as required by FAR 52.228-15, Performance and Payment Bonds-Construction (Jul 2000).

(2) The contractor is placed on notice that in accordance with FAR 52.228-15 (b) (3), the Government may secure additional protection by directing the Contractor to increase the penal sum of the existing bond or to obtain an additional bond.

B. In the Payment and Performance Bonds form, identify the task order number along with the contract number.

C. Although no bid guarantee is required, FAR 52.228-1, Bid Guarantee, Paragraph (d) and (e) are incorporated by reference.

4. Construction Wage Rate Determination: General Wage Decision No. CA150033 dated 09/04/2015 CA33, Los Angeles County, is applicable to this project. Davis-Bacon Act -- Price Adjustment (52.222.30) applies.

Harbor Workers Compensation Act applies to this procurement. In addition to other insurance coverage required, full insurance coverage is required in accordance with the U.S. Longshore and Harbor Workers Compensation Act, 33 USC 901 et seq.

5. Period of Performance: The period of performance is from the date of award to 31 March 2016. The Government anticipates awarding the task order by 15 November 2015. In-Water Work Window is from date of award to March 31, 2016. The period of performance will not be extended if Option CLIN 0005 and Unit Price Line Item 0006-0008 are exercised. Issuance of the task order constitutes notice to proceed for construction; however, no onsite construction work may begin until I receive and accept your Insurance Certificate, Performance and Payment bonds and draft Progress Schedule.

6. Schedule of Prices:

A. Contract Line Item Numbers (CLINs) covered by this solicitation are divided into three categories designated as Base CLIN, Option Line Item CLIN and Unit Price Line Item CLINs .

(1) CLIN 0001 is the Base CLIN. This is for conducting an eel grass survey prior to starting any in-water work, removing PVC pile wraps, clean pile, and inspect pile upon wrap removal at 23 pile locations, install Type 1-long post repair at 2 locations, install Type 2-epoxy jacket repair at 2 locations and remove existing failed mooring bollard and furnish and install replacement bollard at 1 location. This work is identified as Phase 1 work in the specifications and drawings. If there is an award, this CLIN will be awarded.

(2) CLINS 0002-0004 are Unit Price Line Item CLINs. The work for these CLINs is associated with Base CLIN 0001 ONLY. If there is an award, these CLINS will be awarded at the proposed price multiplied by the estimated quantities.

i. Unit Price Line Item: This is an item of work of such nature that definite need or amount cannot be determined until the Base CLIN work is accomplished.

ii. The unit price line item work will be paid for actual amounts ordered at the applicable unit prices, therefore, you must include the total price (material, labor, overhead, and profit) associated with unit price line items as no adjustments will be made later. Contract FAR clause 52.211-18 entitled “Variation in Estimated Quantity” applies if any adjustments to the estimated quantities are required.

(3) CLIN 0005 is an Option CLIN. This is for removing PVC pile wraps, clean pile, and inspect pile upon wrap removal at 28 pile locations, install Type 1-long post repair at 12 locations, install Type 2-epoxy jacket repair at 3 locations. This work is identified as

Phase 2 work in the specifications and drawings. The exercise and award of Option CLIN 0005 will be made within 60 days after the award of the Base CLIN. Award of Option CLIN 0005 will be dependent on the availability of funds.

(4) CLINS 0006-0008 are Unit Price Line Item CLINs. The work for these CLINs is associated with Option CLIN 0005 ONLY. If Option CLIN 0005 is exercised, these CLINS will be awarded at the proposed price multiplied by the estimated quantities.

i. Unit Price Line Item: This is an item of work of such nature that definite need or amount cannot be determined until Option CLIN 0005 work is accomplished.

ii. The unit price line item work will be paid for actual amounts ordered at the applicable unit prices, therefore, you must include the total price (material, labor, overhead, and profit) associated with unit price line items as no adjustments will be made later. Contract FAR clause 52.211-18 entitled "Variation in Estimated Quantity" applies if any adjustments to the estimated quantities are required.

B. If the Base CLIN is awarded then CLINs 0002, 0003 and 0004 will be awarded (These are unit price line items). If Option CLIN 0005 is exercised then CLINs 0006, 0007 and 0008 will be awarded (These are unit price line items).

C. Prices must be submitted on all Base, Option and Unit Priced Line Item CLINs. Failure to do so may result in rejection of the proposal.

D. The Contractor's proposal shall be all-inclusive to provide all labor, material, equipment, transportation, supervision, and all other necessary items for a complete and usable project.

7. Evaluation for Award:

A. EVALUATION PROCESS: Price will be evaluated on the basis of reasonableness and competitiveness. The price will be analyzed by comparing the price proposals received in response to the solicitation in accordance with FAR 15.404. Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interest, the Government will evaluate prices for award purposes by adding the total price for all CLINs including Base CLIN, Option CLIN, and Unit Price Item CLINS. The total price for the Option CLIN and the Unit Price Items will be determined by multiplying the estimated quantity by the unit price. Evaluation of Option will not obligate the Government to award the Option. Proposals containing conditions may be rejected.

B. FAR 52.217-5 -- EVALUATION OF OPTIONS (Jul 1990). Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

C. BASIS FOR AWARD OF TASK ORDER:

(1) The Government intends to award a task order to the responsive responsible offeror offering the lowest overall proposed price. The Government intends to evaluate proposals and award a task order without discussions. Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price standpoint. The Government reserves the right to negotiate if the Contracting Officer determines them to be necessary. By submission of its offer, the offeror accedes to the terms of this contract.

(2) The Contracting Officer has determined there is a high probability of adequate price competition in this acquisition. It is DHS Policy that pricing for competitive negotiations should be based on adequate competition. However, in the event only one responsible offeror is obtained as a result of this solicitation, that offeror may be required to submit either Certified Cost and Pricing Data (FAR 15.403-4) or Data Other Than Certified Cost and Pricing Data (FAR 15.403-3) to support price negotiations.

8. List of Enclosures:

a.	Schedule B / signature page for proposal submission	3 page
b.	Specifications	46 pages
c.	Drawings	12 sheets
d.	Wage Determination	27 pages
e.	Attachment 1 to specification	40 pages

9. Proposal Requirements:

A. Offeror needs to submit a signed Schedule of Prices and acknowledge any amendments, if applicable. ***Proposal is due by 30 October 2015*.** You may submit your proposal via email to jason.e.dugan@uscg.mil or via fax to 510-637-5728. All proposal sent by e-mail shall request a delivery receipt. The subject line of the e-mail shall state "Proposal for HSCG88-15-R-PQQ152/ Contractor Name." The body of the e-mail must include the following: project description, acknowledgement of all amendment, your firm's name, as well as proposal due date and time. Schedule B shall be completed, signed, and attached to the e-mail. If you have any questions, please contact Jason Dugan at (510) 637-5583.

B. If you are unable to or choose not to respond to this requirement, a NO RESPONSE letter must be submitted. All NO RESPONSES shall include a brief explanation as to why you elected not provide a proposal for this project. No Response letter may be transmitted to the Contracting Officer via fax, mail or e-mail.

C. All Requests for Information (RFIs) must be received by ***23 October 2015*.** We cannot guarantee an answer if RFIs are received after ***23 October 2015***.

10. Funds Are Not Presently Available For This Project: There will be no award until funds are available. The Government reserves the right to cancel this RFP either before or after the closing date.

All proposals must remain in effect for 120 days after the closing date.

Sincerely,

JEFFREY A. CROSS
Contracting Officer

DEPARTMENT OF HOMELAND SECURITY
UNITED STATES COAST GUARD

CIVIL ENGINEERING UNIT OAKLAND
OAKLAND, CALIFORNIA 94612-5203

PSN 5337223

SPECIFICATIONS

FOR

REPAIR INDUSTRIAL WHARF

AT

BASE LOS ANGELES/LONG BEACH

SAN PEDRO, CALIFORNIA

Civil Engineering Unit Oakland	Initial	Date
Adam White PROJECT MANAGER	AW	6/2/15
Joan Haberman SUPERVISOR, RE DESIGN TEAM B	JH	6/2/15
Richard J. Kowalski, Jr. TECHNICAL DIRECTOR	RJK	6/2/15

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DIVISION 01 – GENERAL REQUIREMENTS

01 10 00 – GENERAL PARAGRAPHS

PART 1 GENERAL

1.01 SCOPE OF WORK: Provide all labor, materials, and equipment necessary to repair Industrial Wharf at Base Los Angeles/Long Beach (BASE LA/LB). The work includes, but is not limited to, the following:

PHASE I - BASE ITEM (Shown as phase I on Drawings)

A. Work Includes:

1) Prior to the commencement of in-water work, conduct an eel grass survey in accordance with the California Eelgrass Mitigation Policy (CEMP) found in Attachment 1. The survey shall be completed prior to starting work. If the pre-construction survey demonstrates eelgrass presence within the project vicinity, a post-project survey shall be conducted and impacts to eelgrass mitigated in accordance with the CEMP;

2) Conduct a pre-construction survey of the project area for Caulerpa taxifolia (Caulerpa) in accordance with the Caulerpa Control Protocol found in Attachment 1. The pre-construction survey shall be conducted no earlier than 90 calendar days prior to planned construction and not later than 30 calendar days prior to construction. The results of the survey shall be furnished to regulatory agencies in accordance with the non-discretionary Special Conditions listed in the Department of The Army Nationwide permit Verification found in Attachment 1.

3) Silt curtains/turbidity reduction measures shall be installed per manufacturer standards for the duration of the sediment disturbing work in accordance with the Department of The Army Nationwide Permit Verification non-discretionary Special Conditions (17 August 2015) and the NOAA consultation (7 July 2015) found in Attachment 1.

4) Remove PVC pile wraps, clean pile, and inspect pile upon wrap removal at 23 pile locations, as shown on drawings;

5) Install Type 1-long post repair at 2 locations, as shown on drawings;

6) Install Type 2-epoxy jacket repair at 2 locations, as shown on drawings; and,

7) Remove existing failed mooring bollard and furnish and install replacement bollard at 1 location, as shown on drawings.

UNIT LINE ITEMS (Associated with BASE ITEM Only)

B. Install type 1-long post repair (EACH).

C. Install type 2-epoxy jacket repair (EACH).

D. Remove existing timber fender pile and furnish and install new fender pile (EACH).

OPTION LINE ITEM (Shown as phase II on Drawings)

E. Work Includes:

1) Remove PVC pile wraps, clean pile, and inspect pile upon wrap removal at 28 pile locations, as shown on drawings;

2) Install Type 1-long post repair at 12 locations, as shown on drawings; and,

3) Install Type 2-epoxy jacket repair at 3 locations, as shown on drawings.

UNIT LINE ITEMS (Associated with OPTION LINE ITEM Only)

F. Install type 1-long post repair (EACH).

G. Install type 2-epoxy jacket repair (EACH).

H. Remove existing timber fender pile and furnish and install new fender pile (EACH).

1.02 LOCATION: Project site is located at BASE LA/LB, 1001 S. Seaside Ave, San Pedro, CA 90731.

1.03 SITE INVESTIGATION: Investigate the site per FAR 52.236-3 to ascertain the general and local conditions which can affect the work or its cost. Contact LT Robert M Hunter BASE LA/LB Engineering at (310) 521-6011 to arrange site access.

1.04 CONTRACTOR SECURITY REQUIREMENTS: The Contractor shall provide a list of all on-site personnel, including sub-contractors (including second and third-tier subcontractors) and suppliers, to the Contracting Officer. The contractor shall update this list when changes occur. Contractor personnel not listed may be denied access to the Coast Guard facility. Contractor personnel will be restricted to designated working areas. Any personnel violating this policy may lose access to the Coast Guard facility. Contractor personnel shall have photo identification at all times while working on Coast Guard facilities.

Contractor and delivery personnel may be required to present personal photo identification to gain access to a Coast Guard installation. If identification does not indicate United States citizenship, Coast Guard Security may require proof of the legal right to work in the United States. Contractor and delivery personnel also may be subjected to an immigration status and outstanding criminal warrants check.

Contractors shall provide the Contracting Officer's Technical Representative with 24 hours of advance notice of every delivery to the site (e.g., concrete, lumber, parts, etc.) and provide the company name, delivery person, and phone number of the firm(s) making deliveries. All vehicle access to government property requires vehicle registration and proof of liability insurance. Otherwise access to the Coast Guard facility may be denied.

Base LA/LB employs the RAPIDGate Program for site access privileges. The contractor is encouraged to attain RAPIDGate credentials for employees to provide quicker entry onto Coast Guard facilities. All costs for registration in the RAPIDGate Program will be at no additional cost to the Government. RAPIDGate contact information 1-877-727-4342.

1.05 CONTINUITY OF FACILITIES OPERATION: Schedule work to minimize interference with the facilities normal operations. Notify the Contracting Officer and the site contact 3 business days in advance of any shutdowns. Perform all on-site work, including deliveries, between the hours of 7:00 AM and 5:00 PM, Monday through Friday (Federal Holidays excluded), unless otherwise approved by the Contracting Officer and the Unit Commanding Officer.

1.06 NOTIFICATION OF START AND COMPLETION OF WORK: The Contractor shall notify the Contracting Officer in writing five (5) business days in advance of the date he intends to commence work, and five (5) business days prior to the date that work will be ready for final inspection.

1.07 RECYCLING AND DISPOSAL OF REFUSE: Refuse, excess or waste materials resulting from construction operations shall become the property of the Contractor and shall be recycled and/or disposed of off Government property. All disposal shall be done in accordance with federal, state, and local laws and regulations.

1.08 REGIONAL MATERIALS: The contractor shall make all attempts to maximize the procurement of materials within a 500 mile radius of the project site.

1.09 SAFETY: During the execution of this contract, the Contractor shall conform to the rules and regulations as set forth by OSHA Safety and Health Standards, 29 CFR Part 1926 - Safety and Health Regulations for Construction and California Code of Regulations, Title 8, Div. 1, Ch 4, Subchapter 4 Construction Safety Orders.

When the standards differ, the more restrictive standard shall apply. The contractor shall provide barriers, temporary fencing, trench covers, etc. wherever work could cause injury to workers, visitors, Coast Guard personnel, or dependents. An Accident Prevention Plan shall be submitted in accordance with Section 01 35 29, paragraph 1.07.

1.10 TEMPORARY FACILITIES:

A. STORAGE: A staging area is shown on drawings. The Contractor shall be responsible for protecting materials stockpiled against weather, damage, theft, and other risks of loss. The Coast Guard assumes no responsibility for material or equipment left in the storage area.

B. SANITARY FACILITIES: There are no toilet facilities available for Contractor use at the job site. The Contractor shall provide his own facilities in accordance with 29 CFR 1926, Chapter XVII, Subpart D, paragraph 1926.51 (c) (1).

C. WATER AND ELECTRICITY: Water and electricity are available at no cost to the Contractor. Cost of these utility connections and disconnections shall be the responsibility of the Contractor. Personnel using extension cords to bring power from another location to construction, maintenance, remodeling, etc., shall employ portable ground fault circuit interrupters (gfcis), even if connecting to building wiring.

1.11 EXISTING UTILITIES: Utility locations shown are approximate. The Contractor shall field verify all utility locations. This shall include but not be limited to the use of sonic, electronic or magnetic detection devices, by noting pullbox and utility box locations at the surface, and by potholing. Contractor shall be responsible for repairing any utilities damaged during construction at no additional cost to the Government.

1.12 DRAWINGS: The work shall conform to the drawings listed below which form a part of these specifications.

Number	Title
G-001	Title Sheet
G-002	Project Notes
G-003	Existing Site Plan
C-001	Existing Wharf Plan
C-002	Existing Wharf Sections
C-003	Site Photographs
S-001	Phase 1 - Repair Plan
S-002	Phase 2 - Repair Plan
S-003	Wharf Removals
S-004	Type 1 - Long Post Repair

S-005 Type 2 - Epoxy Repair
S-006 Misc. Repair Details

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

01 33 00 – SUBMITTALS PROCEDURES

PART 1 GENERAL

1.01 GENERAL

A. Forward all submittals, except as stated elsewhere, to the Contracting Officer by email as indicated on the submittal register. Submittals shall be accompanied with the USCG furnished material submittal form in Microsoft Word Format. Unless noted otherwise, all submittals shall be provided in an electronic image format. Provide these submittal images to the Contracting Officer, the Construction Manager, and the Contracting Officer's Representative (COR) simultaneously. If the electronic image is insufficient to ascertain submittal acceptability, the Contracting Officer may request a hard copy submittal. The Contracting Officer will e-mail approval or disapproval of submittals, within 10 calendar days after receipt.

B. The Construction Manager will review all submittals for compliance with these specifications. Submittals shall have been approved by the Contracting Officer before any item is delivered to the job site.

C. Approval of submittals, and corrections or comments made during the review, do not relieve the Contractor from compliance with the requirements of the plans and specifications.

D. The schedule of submittals listed in the submittal register and in the individual sections are the submittals required for this contract. Unsolicited submittals may be returned to the Contractor without review.

1.02 CATALOG CUTS: Catalog cuts shall contain manufacturer's description, specifications and sketches of the material and equipment provided. The catalog cut shall contain sufficient information which can be used to determine compliance with these specifications.

1.03 CERTIFICATES OF COMPLIANCE: Certificates of compliance shall be signed by an authorized officer of the manufacturing company furnishing the material which states that the material being furnished meets all requirements of these specifications and referenced specifications.

1.04 SAMPLES: Samples shall be submitted as described in the referencing specification section.

1.05 SHOP DRAWINGS: Drawings shall indicate layouts, dimensions, materials, and other information required to fully describe the items being installed. In addition to shop drawings for approval submit one reproducible bond paper, full size, set of as-built

shop drawings at completion of contract work. If drawings are prepared using computer aided drafting, electronic files shall be compatible for use with AutoCAD 2012. Submit electronic files in addition to hard copy drawings.

1.06 STANDARD COMPLIANCE: When materials or equipment must conform to the standards of organizations such as the American Society for Testing and Materials (ASTM), and Underwriter's Laboratories (UL), proof of such conformance shall be submitted to the Contracting Officer for approval. If an organization uses a label or listing to indicate compliance with a particular standard, the label or listing will be acceptable evidence. In lieu of the label or listing, submit a certificate from an independent testing organization, which is competent to perform the test. The certificate shall state that the item has been tested in accordance with the specified organization's standard.

1.07 TEST RESULTS: Submit test results as described in the individual referencing specification section.

1.08 BAR CHART PROGRESS SCHEDULE: Within 10 calendar days after award, submit a bar chart progress schedule. On-site work shall not begin until a bar chart schedule has been approved. The bar chart shall show the complete sequence of construction by activity (including acquisition of materials and equipment). The chart shall identify the construction start date, the completion date, and all workdays through the duration of the project. If the project requires various delivery dates, dates will be indicated for each of the required deliverable elements (i.e., housing unit or specific building). The bar chart shall also identify the cost for the various activities which shall be used as the basis for the Contractor's periodic request for payments. Submission and approval of as-built drawings and O&M manuals shall each be separate line items (with associated costs) on the bar chart.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

CEU OAKLAND SUBMITTAL REGISTER	PSN: 5337223	CONTRACT NO.:
PROJECT TITLE AND LOCATION: REPAIR INDUSTRIAL WHARF BASE LA/LB, SAN PEDRO CA	CONTRACTOR NAME:	

	Submittal Reference Location				DATE REQUIRED	DATE SUBMITTED	ACTION DATE				
NO.	SPEC SECTION	PARA.	PAGE	DESCRIPTION OF SUBMITTAL	Days after award		APPROVED	APPROVED AS NOTED	DISAPPROVED	RESUBMITTAL APPROVED	REVIEWER
001	01 10 00	1.01A	1	PRE-CONSTRUCTION EELGRASS SURVEY	-						
002	01 10 00	1.01B	1	PRE-CONSTRUCTION CAULERPA SURVEY	-						
003	01 33 00	1.08	7	BAR CHART PROGRESS SCHEDULE	10						
004	01 35 29	1.07A	11	SOLID WASTE DISPOSAL PERMIT	120						
005	01 35 29	1.07B	11	HW MANIFESTS	120						
006	01 35 29	1.07C	12	HM/HW HANDLING PLAN	10						
007	01 35 29	1.07D	13	MATERIAL SAFETY DATA SHEETS	10						
008	01 35 29	1.07E	13	ACCIDENT PREVENTION PLAN (APP)	10						
009	01 35 29	1.07F	13	MOBILE EQUIPMENT OPERATOR LIST	10						
010	03 01 32	1.03A	21	WORK PLAN	30						
011	03 01 32	1.03B	21	SHOP DRAWINGS	30						
012	03 01 32	1.03C	21	PRODUCT DATA	30						
013	03 01 32	1.03D	21	INSPECTION SUMMARY REPORT	-						
014	05 12 00	1.03A	29	PRE-CONSTRUCTION SUBMITTALS	30						
015	05 12 00	1.03B	29	TEST REPORTS	30						
016	05 12 00	1.03C	30	CERTIFICATES	30						
017	05 30 00	1.03A	34	PRODUCT DATA	30						
018	05 30 00	1.03B	34	DESIGN DATA	30						
019	06 13 33	1.03A	38	SHOP DRAWINGS	30						
020	06 13 33	1.03B	39	TEST REPORTS	30						
021	31 62 19	1.03A	43	PRODUCT DATA - PILES	30						
022	31 62 19	1.03A	43	PILE DRIVING EQUIP.	30						
023	31 62 19	1.03A	43	CLOSEOUT DOCUMENTS	30						

01 35 29 – HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES: This section applies to steps taken by the contractor to comply with the health and safety requirements listed herein. The Contractor shall comply with all applicable federal, state, and local laws and regulations. The ultimate responsibility for identifying applicable requirements and protecting contractor employees or sub-contractors rests with the primary contractor.

1.02 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

A. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI):

Z359 Series	Fall Protection Code, Version 2 (Z359.0-2007, Z359.1-2007, Z359.2-2007, Z359.3-2007, Z359.4-2007, Z359.6-2009, Z359.12-2009, Z359.13-2009, Z359.14-2012, and historical Z359.1-1992 (R1999)

B. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGULATIONS:

40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 302.4	Designation of Hazardous Substances
40 CFR 763	Asbestos Hazards and Emergency Response Act (AHERA)

C. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 241	Standard for Safeguarding Construction, Alteration and Demolition Operations

D. U.S. Army Corps of Engineers (USACE):

EM 385-1-1	Safety and Health Requirements Manual

E. U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH

ADMINISTRATION (OSHA) REGULATIONS:

29 CFR 1926.59 Hazard Communication

29 CFR 1926.106 Working Over or Near Water

F. U. S. DEPARTMENT OF TRANSPORTATION REGULATIONS:

49 CFR 100-199 Hazardous Materials Transportation, Handling, and Storage Regulations

1.03 REFERENCE STATUTES: The statutes listed below form a part of this specification to the extent referenced.

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. §§ 136 to 139y)

Noise Control Act (NCA) (42 U.S.C. §§ 4901 to 4918)

Residential Lead-Based Paint Exposure Reduction Act (15 U.S.C. §§ 2681 to 2692)

1.04 HAZARDOUS MATERIAL TESTING:

A. No tests have been conducted on the materials expected to be encountered during this work. The contractor shall comply with the requirements of this specification in the event any materials are encountered which may pose a potential health hazard.

B. Creosote treated wood containing polycyclic aromatic hydrocarbons that are to be removed as part of this contract.

1.05 UNFORESEEN HAZARDOUS MATERIALS:

A. If, during the course of work, additional material is found that may be hazardous to human health upon disturbance during construction operations, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days, the Government will determine if the material is hazardous. If the material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If the material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a contract modification.

1.06 DEFINITIONS

A. Sediment: Soil and other debris that has been eroded and

transported by runoff water.

B. Solid Waste: Rubbish, debris and other discarded solid materials resulting from industrial, commercial, and agricultural operations, and from community activities. Solid waste may also include non-sewage liquids.

C. Rubbish: A variety of combustible and noncombustible wastes such as paper, boxes, glass, crockery, metal, lumber, cans, and bones.

D. Debris: Includes combustible and noncombustible wastes, such as ashes, waste materials that result from construction or maintenance and repair work, leaves, and tree trimmings.

E. Chemical Wastes: Includes salts, acids, alkalies, herbicides, pesticides, and organic chemicals.

F. Sanitary Wastes:

1) Sewage: Wastes characterized as domestic sanitary sewage.

2) Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

G. Asbestos and Asbestos Materials: Asbestos means actinolite, amosite, antophyllite, chrysotile, crocidolite, and tremolite. Asbestos material means asbestos or any material containing asbestos such as asbestos waste, scrap, debris bags, containers, equipment, and asbestos-contaminated clothing consigned for disposal. Friable asbestos material means any material that contains more than one percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure.

H. Oily Waste: Includes petroleum products and bituminous materials.

I. PCB (Polychlorinated Biphenyls): Toxic and non-biodegradable materials used extensively under trade names, such as Pyranol or Askarel, as insulating cooling fluids in capacitors and transformers.

J. Hazardous Material (HM): Chemicals defined by OSHA 29 CFR 1926.59 and under the U.S. Department of Transportation (DOT) regulations (Title 49 CFR Parts 100 through 199) which are determined by the Secretary of Transportation to present risks to safety, health, and property during

transportation. The DOT regulations include requirements for shipping papers, package marking, labeling, transport vehicle placarding, and training of personnel handling hazardous materials.

K. Hazardous Substance: Substances defined under the Clean Water Act and CERCLA as chemicals which are harmful to aquatic life or the environment and are regulated, if spilled or otherwise released to the environment. The EPA has designated "reportable quantities" for each hazardous substance (Table 40 CFR 302.4) under CERCLA. If an amount equal to or greater than the reportable quantity of a hazardous substance is released to the environment, that spill must be reported.

L. Hazardous Waste (HW): Substances which are hazardous and have been discarded are regulated as hazardous waste under RCRA or State Health and Safety Codes and their implementing regulations. A waste is hazardous if it meets certain levels of reactivity, ignitability, corrosivity, or toxicity, or is otherwise listed as a hazardous waste in Title 40 CFR Part 261 or in the respective State Health and Safety Code or Code of Regulations.

M. Lead Containing Paint: Paint or other similar surface coating material containing lead or lead compounds and in which the lead content is in excess of 0.06% by weight of the total nonvolatile content of the paint or the weight of the dried paint film. Abatement of paint containing even trace amounts of lead must meet the requirements of Federal and State laws for protection of employees (e.g., 29 CFR 1926.62 and 40 CFR 745 Subpart E).

1.07 SUBMITTALS: Submit the following in accordance with Section 01 33 00, "Submittal Procedures":

A. Solid Waste Disposal Permit: Upon disposal, provide copies of the acceptance receipts for the material, from the disposal site.

B. HW Manifests: Upon disposal of hazardous waste, submit a copy of the completed manifests within 5 calendar days of delivery of the wastes to the EPA approved treatment, storage and disposal facility.

C. HM/HW Handling Plan: Comply with all local, state, and federal laws and regulations when handling hazardous materials and disposing of and handling hazardous and other wastes. The Contractor shall have a compliance

program outlining how the contractor handles and disposes of hazardous materials, petroleum products, hazardous substances, and hazardous waste. The program shall include, but is not limited to, the following elements as appropriate: a general storage site plan, methods used to analyze whether generated material (blasting debris, paint waste, etc.) is hazardous, any hazardous waste licenses and permits, air district permits, and the identification of hazardous waste and material transportation and disposal contractors. The Coast Guard has the right to require removal from the contract performance of any subcontractor who fails to comply with these laws and regulations or who fails to provide appropriate evidence of compliance with them.

D. Materials Safety Data Sheets (MSDS's): Copies of all MSDS's for all hazardous materials (including petroleum products) shall be submitted along with a listing of quantities of these hazardous materials proposed to be stored on site.

E. ACCIDENT PREVENTION: Submit a copy of your "Accident Prevention" or "Injury and Illness Prevention" Plan as required under the submittal register. The work plan shall address the specific hazards on the job-site EM 385-1-1 Appendix A illustrates typical content for the Accident Prevention Plan (APP).

F. MOBILE EQUIPMENT OPERATOR LIST: A list of qualified operators for all mobile equipment that will be brought onto the job site with employee name(s), qualifications and specific equipment to be operated shall be provided to the Contracting Officer prior to equipment operation. (This includes forklifts, cranes, motorized lifting device, etc.)

1.08 DUST CONTROL: Keep dust down at all times, including non-working hours, weekends, and holidays. Sprinkle or treat with dust suppressors, and other areas disturbed by operations. No dry power brooming is permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing is permitted only for cleaning nonparticulate debris, such as steel reinforcing bars. No sandblasting is permitted unless dust is confined. Only wet cutting of concrete blocks, concrete, and asphalt is permitted. No unnecessary shaking of bags is permitted where bagged cement, concrete mortar, and plaster is used.

1.09 WORKING OVER OR NEAR WATER: When working over or near water, comply with 29 CFR 1926.106.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

01 35 43 – ENVIRONMENTAL PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES: This section applies to all necessary steps taken by the contractor to comply with the environmental protection requirements listed herein.

1.02 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

A. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGULATIONS:

40 CFR 122	National Pollution Discharge Elimination System
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 761	Polychlorinated Biphenyls (PCB) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions

B. U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS:

29 CFR 1910.120	Hazardous Waste Operations

C. U. S. DEPARTMENT OF TRANSPORTATION REGULATIONS:

49 CFR 100-199	Hazardous Materials Transportation, Handling, and Storage Regulations

1.03 REFERENCE STATUTES: The statutes listed below form a part of this specification to the extent referenced.

Clean Air Act (CAA) (42 U.S.C. §§ 7401 to 7642)

Clean Water Act (33 U.S.C. §§ 1251 to 1387)

Comprehensive Environmental Response, Compensation, and

Liability Act (CERCLA) (42 U.S.C. §§ 9601 to 9675)

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. §§ 136 to 139y)

Federal Water Pollution Control Act (CWA) (33 U.S.C. §§ 1251)

Toxic Substance Control Act (TSCA) (15 U.S.C. §§ 2601 to 2654)

Resource Conservation and Recovery Act (RCRA) (42 U.S.C. §§ 6901 to 6991i)

1.04 ENVIRONMENTAL PROTECTION REQUIREMENTS:

A. Provide and maintain environmental protection during the life of the Contract to control pollution or to correct conditions that develop during construction. Comply with all Federal, State, and local laws and regulations pertaining to water, air, soil, and noise pollution.

B. The Contractor shall comply with all requirements set forth in permits, plans, protocols and consultations found in Attachment 1.

C. The Contractor shall have a copy of the Department of The Army Nationwide Permit Verification (U.S. Army Corps of Engineers, dated 17 August 2015) available onsite upon request. The Contractor shall notify the Corps Regulatory Division of commencement of operations not less than 14 calendar days prior to commencing work, and shall notify the Corps of the date of completion of operations at least five calendar days prior to such completion.

D. Silt curtains/turbidity reduction measures shall be installed per manufacturer standards for the duration of sediment disturbing work in accordance with the Department of The Army Nationwide Permit Verification non-discretionary Special Conditions (17 August 2015) and the NOAA consultation (7 July 2015) found in Attachment 1.

1.05 PROTECTION OF NATURAL RESOURCES

A. Preserve the natural resources within the project boundaries and outside the limits of permanent work performed under this Contract in their existing condition or restore to an equivalent or improved condition upon completion of the work. Repair or restore to original condition all trees or other landscape features scarred or

damaged by equipment or operations. Obtain Contracting Officer's approval before repair or restoration. Confine construction activities to areas defined by the work schedule, drawings, and specifications. Federal Acquisition Regulation clause 52.236-9 applies.

B. Except in areas indicated to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without special written permission from the Contracting Officer. Protect existing trees which may be damaged by construction operations.

C. Construction equipment is to be kept in good repair, without leaks of hydraulic or lubricating fluids. If such leaks or drips do occur, they shall be cleaned up immediately. Drip pans shall be utilized when vehicles are parked. Confine equipment maintenance and/or repair to one location. Control runoff in this area to prevent contamination of soils and water.

D. At or before Contract completion, obliterate all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, and all other vestiges of construction. Temporary roads, parking areas, staging areas, and similar temporary use areas where excavation has been accomplished shall be graded in conformance with surrounding areas. Restore all disturbed areas to their original condition.

E. For all work in or over water habitats, provide a debris boom approved by the Contracting Officer. Take precautions to preclude construction materials from entering the water and immediately remove any material that enters the water in the work area. Report spills of any liquids into the water habitat and take steps to preclude spread or dissipation of spilled liquids.

1.06 CONTROL AND DISPOSAL OF WASTES: With the exception of materials specifically indicated or specified to be salvaged for reuse in construction, or turned over to the Government, all wastes and demolished materials become the contractor's property and shall be removed from the job site daily.

1.07 HAZARDOUS WASTE DISPOSAL: Any hazardous or regulated waste generated by work under this contract is the responsibility of the Contractor and shall be disposed of in accordance with all applicable federal, state, and local regulatory requirements. The facility is the

generator of record and will provide the EPA ID number and manage manifests. The site environmental manager must approve and sign all manifests. The contractor may leave wastes on site pending analysis for disposal. The wastes will be accumulated at a location designated by the POC. The facility address will be used on each manifest. CEU Oakland shall not appear on any manifest. The Contractor shall arrange and be responsible for the transportation and final disposal of any hazardous waste. Comply with applicable parts of 40 CFR 262. Any manifest of hazardous waste shall be signed by the Government Hazardous Materials/Hazardous Waste Coordinator at the work site (hereinafter "HM/HW Coordinator"). The Contractor shall contact the HM/HW Coordinator for disposal of any hazardous waste. No contractor or subcontractor shall have the authority to sign a hazardous waste manifest using the facility's EPA generator ID number. Only the HM/HW Coordinator may sign a manifest for hazardous waste.

A. HM/HW Spill Response: Store chemical waste in corrosion resistant containers labeled to identify type of waste and date filled. Comply with 49 CFR 178. Remove containers from Government property and dispose of in accordance with Federal, State, and local regulations. Submit a certified copy of the acceptance receipts for these materials, indicating quantities. For oil and hazardous material spills which may be large enough to violate Federal, State, and local regulations, notify the Contracting Officer immediately.

B. Dispose of petroleum products and petroleum contaminated soil and water in accordance with procedures meeting Federal, State, and local regulations. Comply with 40 CFR 761 for removal and disposal of PCB containing articles.

C. Comply with 40 CFR 262 and 263, 29 CFR 1910.120, and state regulations for removal, transportation and disposal of hazardous waste as discussed in the Contractor's HM/HW Handling Plan.

D. Coordinate use of sanitary, odor, and pest control systems with COR. The Contractor is responsible for compliance with FIFRA at the work site.

1) Herbicides: Any herbicides shall be applied in strict compliance with the product's EPA or State of California registered labeling. All manufacturer's instructions and recommendations for the preparation and application of herbicides shall be strictly followed. In addition, the Contractor shall comply

with all other applicable federal, state or local laws and regulations concerning the application, storage and disposal of such chemicals.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

DIVISION 03 – CONCRETE

03 01 32 – PILE REPAIRS AND PILE JACKETS

PART 1 GENERAL

PART 1 GENERAL

1.01 SECTION INCLUDES: This section applies to all work required for cementitious and epoxy grout pile repair requirements as shown on the Contract Drawings and specified herein.

1.02 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

A. ASTM INTERNATIONAL (ASTM)

ASTM C109/C109M(2013)	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or (50-mm) Cube Specimens)
ASTM C1107/C1107M(2013)	Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink)
ASTM C307(2012)	Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacings
ASTM C413(2012)	Absorption of Chemical-Resistant Mortars, Grouts, and Monolithic Surfacings and Polymer Concretes
ASTM C469/C469M(2010)	Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression
ASTM C531(2012)	Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, and Monolithic Surfacings, and Polymer Concretes
ASTM C579(2012)	Compressive Strength of Chemical-

	Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes
ASTM C580(2012)	Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes
ASTM C882/C882M (2013a)	Bond Strength of Epoxy-Resin Systems Used with Concrete by Slant Shear

1.03 SUBMITTALS: Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

A. Work Plan: Submit a written Work Plan outlining how the work is to be accomplished. As a minimum, the Work Plan shall include: personnel and procedures for removal of existing wraps, marine growth, inspection procedures and protocols, a description of pile jacket materials, and methods for support, injecting inlets and vents, identification of the materials to be used for pile repair, the quality control plan for mixing and testing repair materials on site, means and methods to be used for placement of repair materials, and means and methods for preventing contamination of the adjacent marine habitat. Work plan shall also outline means and methods for supporting formwork to ensure a consistent clear cover is provided throughout the length of the repair jacket, including use of spacers and supports.

B. Shop Drawings: Provide shop drawings detailing the pile repairs, indicated sizes, spacing, and material property of the formwork, connection hardware, and steel connection hardware. Shop drawings shall clearly indicate size, location, and spacing of pump ports.

C. Product Data

1) Non-shrink Underwater Grout

2) Epoxy Grout

3) Trowel Grade Mortar

4) Formwork

D. Inspection Summary Report: Provide results of inspection including field measurements and photos to document section loss of piles. Report shall be stamped and signed

by engineer of record.

1.04 QUALITY ASSURANCE

A. Contractor Qualifications. The contractor performing the structural pile repair work shall have successfully installed pile jacket repairs on piles on a minimum of four projects of similar scope and structural configuration in the last five years

B. Use skilled personnel and divers who are thoroughly trained and experienced in the necessary crafts, and who are completely familiar with the specified requirements and methods needed for proper performance of the work of this section.

C. Inspection: Comply with the provisions of PART 3 of this specification section.

1.05 PRODUCT HANDLING: Provide and maintain one set of current MSDS sheets for each material being used on site. Comply with MSDS and manufacturer's requirements for product handling, storage, and mixture.

PART 2 PRODUCTS

2.01 STRUCTURAL REPAIR GROUT

A. Non-Shrink Underwater Grout: Material to be used for filling annulus at pile splice for Type 1-Long Post repairs. The cementitious non-metalic structural repair material shall be flowable, and shrinkage compensated and specially formulated for underwater construction repair. It should be a blend of Portland cement, aggregates, corrosion inhibitors, and polymers to form a cohesive non-segregating material that is capable of being pumped through water. The plastic mix characteristics shall be suitable for injecting the concrete into formed, confined areas underwater and shall not require an additional bonding agent to achieve adequate bond to the prepared, hardened pile surface. The material may be either a proprietary material or a Contractor selected mix design that has been used in at least three separate and similar projects in the past five years. The mix and result history data shall be submitted to the Contracting Officer for approval.

B. Performance Data

1) Grout shall meet the requirements of ASTM C1107/C1107M.

The following minimum performance data shall apply to the hardened cementitious repair grout

Characteristic	Test Method	Minimum Performance
Compressive Strength at 28-days	ASTM C109/C109M	7,000 psi
Modulus of Elasticity at 28-days	ASTM C469/C469M	5,200 ksi

2.02 MULTI-PURPOSE MARINE EPOXY GROUT

A. Material to be used for filling annulus of Type 2-Epoxy Jacket repairs. Epoxy grout shall be moisture insensitive, 100% solids epoxy grout. It shall be specifically formulated to cure underwater. It shall exhibit good flow, high strengths, and low absorption. It shall be pumpable into the void created between the existing pile and jacket.

B. Performance Data

Compressive Strength (ASTM C579)	7 days - 9,000 psi
Flexural Strength (ASTM C580)	7 days - 3,000 psi
Tensile Strength, Grout (ASTM C307)	7 days - 2,000 psi
Tensile Bond Strength (ASTM C882/C882M)	345 psi
Shrinkage (ASTM C531)	-0.02%
Absorption (ASTM C413)	0.08%

2.03 TROWEL GRADE MORTAR

A. Material to be used for Type 2 repair pile topping. Trowl grade epoxy shall be a 100% solids, moisture insensitive, non-sag epoxy adhesive. It shall be formulated for repairs of vertical or overhead surfaces. It shall meet the requirements of ASTM C 881 to ASTM C 891, Types I, II, and V, Grade 3, Class "B" and "C".

B. Performance Data

Tensile Strength @ 72°F	6,000 psi (ASTM D 638)
Linear Coefficient of Shrinkage on cure	0.005 (ASTM D 2566)

Compressive Strength (ASTM D 695)	7 days - 9,000 psi
Compressive Modulus	200,000
Bond Strength (Slant Shear) (ASTM C 882-99)	7 days - 1,500 psi
Bond Strength (Slant Shear)	2 day moist cure - 1,000 psi
Bond Strength (Slant Shear)	14 day moist cure - 1,500 psi

2.04 PILE JACKET FORMWORK

A. The pile jackets shall be selected by the Contractor and submitted to the Contracting Officer for approval prior to use at the jobsite. All stay-in-place pile jackets shall be fabricated of non-corrosive materials. Contractor shall pre-measure existing timber piles prior to ordering materials to ensure proper clear cover will be provided in conformance with Contract Drawings.

B. The jackets shall be fabricated from fiberglass and polymer resins and shall be a minimum thickness of 1/8 inch. The inside face of the jacket shall be textured similar to a sandblasted surface and shall have no bond-inhibiting agents in contact with the grouts. The jackets shall be provided with non-corrosive standoffs, which will maintain the jackets in the required positions. The jacket shall be capable of being opened, placed around a pile, and then returned to its original shape without damaging the jacket. The product shall meet the following properties:

1) Water Absorption (ASTM D-570) 1% maximum

2) Ultimate Tensile Strength (ASTM D-638)

3) Longitudinal, transverse, and diagonal 14,500 psi minimum

4) Flexural Modulus of Elasticity (ASTM D-790) 700,000 psi minimum

5) Barcol Hardness (ASTM D-2583) 35 minimum

C. The pile jacket construction and stiffness shall provide for a neat material placement in conformance with the lines and dimensions on the drawings. The required injecting pressures shall be considered in the stiffness design. The Contractor shall indicate how the form is

fastened to the pile to support the weight of the form and material during placement.

D. Provide spacers or guides to maintain the specified clear cover depicted on the Contract Drawings. The materials used for spacers and guides shall not create a chemical or electrochemical deterioration of the pile, the reinforcing, or of the repair. Provide a positive means of sealing the form against the pile to prevent leakage when subjected to all probable injecting pressures. Injecting ports shall be located around the perimeter of the form and at elevations in the form suitable for injecting all materials without segregation or compromise to adequate compaction. Pump ports shall be spaced no greater than 10 feet on-center vertically. Indicate how the material is to be injected into the forms, how the water is vented, and how excess material is handled as the form is filled.

PART 3 EXECUTION

3.01 PILE REPAIR PROCEDURE

A. Pile Preparation

1) Remove existing PVC pile wrap in it's entirety. This may require excavation of existing mudline, temporary removal of riprap, or concrete debris. All material excavated to complete the work shall be reused to backfill excavation at the completion of the work.

2) High pressure water blast the surface area to be jacketed to remove surface contamination such as marine organisms, silt, and loose material.

B. Pile Inspection

1) Upon completion of the pile preparation work, the piles shall be inspected and loss of original cross section shall be quantified.

2) The inspection shall be overseen by a Professional Engineer licensed in the State of California. The Contractor shall submit to the Contracting Officer, an inspection summary report depicting the maximum section loss on each pile.

3) Piles with greater than or equal to 30 percent loss of original cross section shall be scheduled for a Type 1-Long Post Repair.

4) Piles with less than 30 percent loss of original cross

section shall be scheduled for Type 2-Epoxy Jacket repair.

5) The Contractor shall clearly illustrate in the inspection summary report which piles are scheduled for Type 1 repairs and which piles are scheduled for Type 2. No work shall proceed until Contracting Officer has provided direction, in writing, following submission of inspection report.

C. Pile Demolition

1) The Contractor shall not perform any pile demolition work until the inspection summary report has been approved, in writing, by the Contracting Officer.

2) Once approval is obtained, piles scheduled for Type 1 repairs shall be removed as depicted in the Contract Drawings. The existing pile shall be cut at 1 foot above the existing mudline. If the timber pile at this section has greater than or equal to 30 percent loss of original cross section, the Contractor shall notify the Contracting Officer and wait for direction until proceeding with further work on that particular pile.

D. Repair Material Mixing

1) Contractor selected proprietary mixes shall be ready-mixed in accordance with ASTM C 94.

2) Mix proprietary materials in approved mixing equipment, in accordance with manufacturer's recommendations.

E. Forming

1) Jacket shall be held in place with clamps and/or strap spaced no greater than 2 feet on-center.

2) Do not drill or cut into the existing piles.

3) Provide standoffs in the Jacket to maintain the required clearances evenly around the perimeter of the pile. Standoffs shall be made of non-corrosive material.

4) Support devices shall be left in place for no less than 48-hours after placement of the repair material.

F. Material Placement

1) The repair material shall be placed by injecting from

the bottom of the form only. Placement by tremie will not be allowed.

2) Continue to inject until material has reached the top of the formwork and formwork is completely filled as depicted in the Contract Drawings.

3) Hand pack trowel-grade mortar at the top of the Type 2 repair form to a 45-degree slope at the top as shown on the Drawings.

3.02 EQUIPMENT

A. Pile Cleaning Equipment: Pile cleaning equipment shall be high-pressure hydrojets capable of preparing the surface to the specified standard, or other equipment approved by the Contracting Officer.

B. Injecting Equipment: Injecting equipment shall be of sufficient size and capacity to inject the repair material from the bottom of the form to the full height of the longest jacket without causing segregation.

3.03 INSPECTION

A. Prior to placement of jackets, the Contracting Officer may randomly inspect the surface preparation for removal of marine growth, silt, and surface preparation.

B. The pile repair will be visually inspected by the Contracting Officers Representative for dimensions, to determine whether the jacket repair meets the intent of these Specifications and the Drawings.

END OF SECTION

DIVISION 05 – METALS

05 12 00 – STRUCTURAL STEEL

PART 1 GENERAL

1.01 SECTION INCLUDES: This section applies to all work required for the structural steel and fasteners as shown on the Contract Drawings and specified herein.

1.02 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC 325	(2011) Steel Construction Manual
AISC 326	(2009) Detailing for Steel Construction
AISC 360	(2010) Specification for Structural Steel Buildings

B. ASTM INTERNATIONAL (ASTM)

ASTM A143/A143M	(2007) Standard Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement
ASTM A153/A153M	(2009) Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A307	(2012) Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength
ASTM A36/A36M	(2012) Standard Specification for Carbon Structural Steel
ASTM A490	(2012) Standard Specification for Structural Bolts, Alloy Steel, Heat Treated, 150 ksi Minimum Tensile Strength
ASTM A563	(2007a) Standard Specification for

	Carbon and Alloy Steel Nuts
ASTM A780/A780M	(2009) Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
ASTM F2329	(2013) Zinc Coating, Hot-Dip, Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners
ASTM F436	(2011) Hardened Steel Washers

C. U.S. DEPARTMENT OF DEFENSE (DOD)

UFC 3-301-01	(2013) Structural Engineering

1.03 SUBMITTALS: Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

A. Preconstruction Submittals

1) Erection Drawings: Submit for record purposes. Indicate the sequence of erection, temporary shoring and bracing.

2) Fabrication Drawings: Submit fabrication drawings for approval prior to fabrication. Prepare in accordance with AISC 326 and AISC 325. Fabrication drawings must not be reproductions of contract drawings. Sign and seal fabrication drawings by a registered professional engineer. Include complete information for the fabrication and erection of the structure's components, including the location, type, and size of bolts, member sizes and lengths, connection details, blocks, copes, and cuts. Shoring and temporary bracing must be designed and sealed by a registered professional engineer and submitted for record purposes, with calculations, as part of the drawings. Any deviations from the details shown on the contract drawings must be clearly highlighted on the fabrication drawings. Explain the reasons for any deviations from the contract drawings.

3) Shop Drawings: Shop drawings shall include a description of connections.

B. Test Reports

1) Bolts, nuts, and washers

2) Embrittlement Test Reports

C. Certificates

1) Steel

2) Bolts, nuts, and washers as specified in Section 2.03

3) Galvanizing

PART 2 PRODUCTS

2.01 SYSTEM DESCRIPTION

A. Provide the structural steel system complete and ready for use. Structural steel systems including design, materials, installation, workmanship, fabrication, assembly, erection, inspection, quality control, and testing must be provided in accordance with UFC 3-301-01 except as modified in this contract.

2.02 STEEL

A. Structural Steel: Angles, Channels and Plates, ASTM A36/A36M. Size as indicated on drawings.

2.03 BOLTS, NUTS, AND WASHERS: Submit the certified manufacturer's mill reports which clearly show the applicable ASTM mechanical and chemical requirements together with the actual test results for the supplied fasteners.

A. Bolt Connections

1) Bolts: ASTM A307, Grade or ASTM A490, Type 1.

2) Nuts: ASTM A563, Grade and Style as specified in the applicable ASTM bolt standard.

3) Washers: ASTM F436, plain carbon steel.

2.04 GALVANIZING: ASTM F2329 for threaded parts or ASTM A153/A153M for structural steel members, as applicable; unless specified otherwise, galvanize after fabrication where practicable.

2.05 FABRICATION:

A. Fabrication shall be in accordance with the applicable provisions of AISC 325. Fabrication and assembly must be done in the shop to the greatest extent possible. Punch,

subpunch and ream, or drill bolt holes perpendicular to the surface of the member.

B. Shop splices of members between field splices will be permitted only where indicated on the Contract Drawings. Splices not indicated require the approval of the Contracting Officer.

C. Markings: Prior to erection, members must be identified by a painted erection mark. Connecting parts assembled in the shop for reaming holes in field connections must be match marked with scratch and notch marks. Do not locate match markings in areas that will decrease member strength or cause stress concentrations.

PART 3 EXECUTION

3.01 ERECTION

A. Erection of structural steel must be in accordance with the applicable provisions of AISC 325.

B. After final positioning of steel members, provide full bearing as shown on the Contract Drawings.

3.02 STORAGE

A. Material must be stored out of contact with the ground in such manner and location as will minimize deterioration.

3.03 CONNECTIONS

A. Except as modified in this section, connections not detailed must be designed in accordance with AISC 360. Build connections into existing work.

B. Bolts: Bolts must be installed in connection holes and brought to a snug tight fit.

3.04 GAS CUTTING

A. Use of gas-cutting torch in the field for correcting fabrication errors will not be permitted on any major member in the structural framing.

3.05 GALVANIZING REPAIR

A. Repair damage to galvanized coatings using ASTM A780/A780M zinc rich paint for galvanizing damaged by handling, transporting, cutting, welding, or bolting. Do not heat surfaces to which repair paint has been applied.

3.06 FIELD QUALITY CONTROL

A. Perform field tests, and provide labor, equipment, and incidentals required for testing. The Contracting Officer must be notified in writing of defective bolts, nuts, and washers within 7 working days of the date of the inspection.

B. Bolts

1) Inspection: Inspection procedures must be in accordance with AISC 360. Confirm and report to the Contracting Officer that the materials meet the project specification and that they are properly stored. Confirm that the faying surfaces have been properly prepared before the connections are assembled. Observe the specified job site testing and calibration, and confirm that the procedure to be used provides the required tension. Monitor the work to ensure the testing procedures are routinely followed on joints that are specified to be fully tensioned.

2) Testing for Embrittlement: ASTM A143/A143M for steel products hot-dip galvanized after fabrication. Submit embrittlement test reports.

END OF SECTION

05 30 00 – MOORING HARDWARE

PART 1 GENERAL

1.01 SECTION INCLUDES: This section applies to all work required for supply and installation of the 50-ton single bitt bollard as shown on the drawings. Installation includes bolting of mooring hardware, filling hardware with grout, filling of bolt holes, and coating the bollard.

1.02 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

A. ASTM INTERNATIONAL (ASTM)

ASTM A 153/A 153M	(2009) Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A 123/A 123M	(2009) Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A 536	(1984; R 2009) Standard Specification for Ductile Iron Castings
ASTM A 563	(2007a) Standard Specification for Carbon and Alloy Steel Nuts
ASTM C 1107	(2005) Packaged Dry, Hydraulic-Cement Grout(Nonshrink)
ASTM C 920	(2008) Standard Specification for Elastomeric Joint Sealants
ASTM F 436	(2010) Hardened Steel Washers
ASTM D 3363	(2005) Film Hardness by Pencil Test
ASTM D 4541	(2009e1) Pull-Off Strength of Coatings Using Portable Adhesion Testers
ASTM D 4587	(2005) Standard Practice for Fluorescent UV-Condensation Exposures of Paint and Related Coatings

ASTM F 1554 Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength

B. THE SOCIETY FOR PROTECTIVE COATINGS (SSPC)

SSPC SP 1 (1982; E 2004) Solvent Cleaning

SSPC SP 6/NACE No.3 (2007) Commercial Blast Cleaning

1.03 SUBMITTALS: Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

A. Product Data

1) Bollards.

2) Hardware.

3) Nuts and Washers.

4) Grout.

5) Coating system data sheets.

6) Sealants.

B. Design Data

1) Design Calculations: Detailed calculations or manufacturers information demonstrating proposed mooring hardware meets the loading requirements with the required factor of safety listed in Part 2. Calculations shall be stamped by a registered Professional Engineer.

PART 2 PRODUCTS

2.01 MOORING FITTINGS

A. Bollards

1) Mooring fittings shall be new 50-ton capacity, single bitt as shown on the drawings.

2) Bollard material shall be stress-relieved ductile iron conforming to ASTM A 536, Grade 65-45. Bollards shall have a minimum working capacity of 50 tons in the direction of 0 degrees to 30 degrees relative to horizontal and 0 degrees to 180 degrees relative to the face of the pier.

3) The factor of safety against yielding shall be 2.0 and the factor of safety against breaking shall be 3.0.

4) Anchor hardware shall be designed in accordance with the latest edition of the AISC Manual of Steel Construction. Submit detailed design calculations for the bollard showing conformance to the above performance criteria. Contractor shall adjust bolting pattern and anchorage as required based on the selected bollard. Submittal shall clearly indicate final anchor arrangement.

5) Products that are considered meeting these requirements include, but are not limited to the following products:

(a) S1191-1: Schoellhorn~Albrecht Machine Co. Inc.

(b) SBD1-50: Pacific Marine & Industrial

(c) AMB 50-A: Anchor Marine & Industrial Supply

B. ANCHORAGE HARDWARE: The proposed bollard shall be fastened with 1-3/8" minimum diameter bolts, conforming to ASTM F 1554, Grade 105. Size and quantity of bolts shall be in accordance with the manufacturer's design. Bollard hardware(nuts and washers)shall conform to ASTM A 563, Grade DH and ASTM F 436. All hardware shall be hot-dipped galvanized in accordance with ASTM A 123/A 123M or ASTM A 153/A 153M. Contractor shall test a minimum of one hardware assembly to confirm conformance with the required material properties and submit the results of this testing.

C. GROUT: Grout for annulus of bollards shall be non-shrink, non-metallic high performance cemetitious grout having a minimum 28 day compressive strength of 4000 psi. Grout shall conform to ASTM C 1107, Grade C.

D. SEALANTS: Material to be used for sealing anchor nut pockets. ASTM C 920, Type S, one component, Grade P pourable or self-leveling type sealant.

E. PRIMER: Shall consist of an inorganic zinch-rich primer with a minimum adhesion of 1500 psi in accordance with ASTM D 4541.

F. INTERMEDIATE COAT: Shall have a minimum adhesion of 1500 psi in accordance with ASTM D 4541.

G. TOP COAT

1) Top Coat shall be "safety yellow" and have a minimum of 2500 psi adhesion in accordance with ASTM D 4541, Hardness H in accordance with ASTM D 3363, and no loss rusting, blistering, or loss of adhesion under accelerated weathering in accordance with ASTM D 4587

2) Products that are considered meeting these requirements include, but are not limited to the following products:

Carboline Protective Coating
Primer, 2.0 to 3.0 mils D.F.T. Carbozinc 11 Inorganic Zinc
Intermediate Coat, 3.0 mils D.F.T. Carboguard
Top Coat, 2.0-2.5 mils D.F.T. Carbothane 134 HG Aliphatic Acrylic Polyurethane

Devoe High Performance Coatings
Primer - Cath-coat 302H
Intermediate Coat - Bar-Rust 231
Top Coat - Devthane 379

PART 3 EXECUTION

3.01 MOORING HARDWARE INSTALLATION

A. Hardware: Hardware shall be installed in accordance with the drawings and held in place with templates that match bollard bolt pattern.

B. Bollards: Contractor shall submit bollard installation procedures in accordance with the manufacturer's recommendations. Place bollards level and install anchorage hardware. Prepare existing timber deck surface to create a solid, level surface. Surface the deck beyond the footprint of the base of the bollard so that water drains away from the base. Double nut bottom fasteners to prevent loosening. Fill annulus of bollard with grout and seal bolt pockets with sealant. Countersunk bolts shall be filled with non-shrink grout to prevent standing water. To prevent damage to vessel mooring lines, no sharp edges around the bolting area shall exist after installation.

3.02 FINISH:

A. Bollards shall be cleaned of any grease or other foreign matter in accordance with SSPC SP 1.

B. After solvent cleaning, complete surface preparation in accordance with SSPC SP 6/NACE No.3, at a minimum, before applying coating system. Bollards shall be finished with a 3-coat paint system, paint shall be safety yellow color.

Primer shall be factory-applied to a minimum of 2.0 mils thickness. Intermediate coat and top coat shall be applied at the jobsite to minimum thicknesses of 3.0 mils, each.

END OF SECTION

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

06 13 33 – PIER TIMBERWORK

PART 1 GENERAL

1.01 SECTION INCLUDES: This section applies to all work required for sawn timber work related to Type-1 pile repair shims, posts, and all non-pile related timber work associated with the fender system repairs.

1.02 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

A. AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)

AWPA M4 (2011)	Standard for the Care of Preservative-Treated Wood Products
AWPA M6 (2013)	Brands Used on Preservative Treated Materials
AWPA U1 (2014)	Use Category System: User Specification for Treated Wood

ASTM INTERNATIONAL (ASTM)

ASTM A123/A123M	(2013) Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A153/A153M	(2009) Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

U.S. DEPARTMENT OF DEFENSE (DOD)

MIL-P-21035	(1991; Rev B; Notice 2 2003) Paint, High Zinc Dust Content, Galvanizing Repair (Metric)

1.03 SUBMITTALS: Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

A. Shop Drawings

1) Pier timberwork: Submit drawings of treated timber showing dimensions of cut, framed, or bored timbers.

B. Test Reports

1) Timber preservative inspection: Submit the inspection report of an independent inspection agency, for approval by the Contracting Officer, that offers products complying with applicable AWPA Standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the American Lumber Standard Committee.

2) Delivery inspection list: Field inspect and submit a verification list of each treated timber member and each strapped bundle of treated lumber indicating the wording and lettering of the quality control markings, the species and the condition of the wood. Do not incorporate materials damaged in transport from plant to site. Inspect all preservative-treated wood, visually to ensure there are no excessive residual materials or preservative deposits. Material shall be clean and dry or it will be rejected due to environmental concerns.

3) MSDS and CIS: Provide Material Safety Data Sheets (MSDS) and Consumer Information Sheets (CIS) associated with timber pile preservative treatment. Contractor shall comply with all safety precautions indicated on MSDS and CIS.

1.04 DELIVERY AND STORAGE

A. Open-stack untreated timber and lumber material on skids at least 12 inches aboveground, in a manner that will prevent warping and allow shedding of water. Close-stack treated timber and lumber material in a manner that will prevent long timbers or preframed material from sagging or becoming crooked. Keep ground under and within 5 feet of such piles free of weeds, rubbish, and combustible materials. Protect materials from weather. Handle treated timber with ropes or chain slings without dropping, breaking outer fibers, bruising, or penetrating surface with tools. Do not use cant dogs, peaveys, hooks, or pike poles. Protect timber and hardware from damage.

PART 2 PRODUCTS

2.01 MATERIALS

A. Solid Sawn Timbers and Posts: Provide solid sawn lumber and timbers of Douglas Fir-Larch, identified by the grade mark of a recognized association or independent inspection

agency using the specific grading requirements of an association recognized as covering the species used. The association or independent inspection agency shall be certified by the Board of Review, American Lumber Standards Committee, to grade the species used. Use commercial grade lumber for secondary members such as decking, joists and railings.

B. Shims and Dowels: Timber shims and dowels shall be Douglas Fir-Larch, pressure treated in accordance with these specifications.

C. Preservative Treatment: Fabricate lumber and timbers before preservative treatment. Each piece of treated lumber or timber shall be branded, by the producer, in accordance with AWPA M6. Treat wood to be used in contact with salt water or salt water splash in accordance with AWPA U1 (Material Subject to Marine Borer Exposure) with ammoniacal copper zinc arsenate (ACZA). The Contractor shall be responsible for the quality of treated wood products.

D. Hardware: Bolts with necessary nuts and washers, timber connectors, drift pins, dowels, nails, screws, spikes, and other fastenings shall meet the requirements outlined in 05 12 00 STRUCTURAL STEEL.

E. Zinc-Coating: Galvanize steel specified or indicated by the hot-dip process in accordance with ASTM A123/A123M or ASTM A153/A153M, as applicable.

PART 3 EXECUTION

3.01 CONSTRUCTION

A. General: Cut, bevel, and face timbers prior to plant preservative treatment. In addition to the contract clause entitled "Accident Prevention" provide protective equipment for personnel fabricating, field treating, or handling materials treated with creosote or water-borne salts. Refer to paragraph entitled "MSDS and CIS."

B. Framing: Cut and frame lumber and timber so that joints will fit over contact surface. Secure timbers and piles in alignment. Open joints are unacceptable. Shimming is not allowed unless indicated on the drawings. Bore holes for drift pins and dowels with a bit 1/16 inch less in diameter than the pin or dowel. Bore holes for truss rods or bolts with a bit 1/16 inch larger in diameter than rod or bolt. Bore holes for lag screws in two parts. Make

lead hole for shank the same diameter as shank. Make lead hole for the threaded portion approximately two-thirds of the shank diameter. Bore holes in small timbers for boat or wire spikes with a bit of the same diameter or smallest dimension of the spike to prevent splitting. Counterbore for countersinking wherever smooth faces are indicated or specified.

C. Posts and Timbers: Provide even bearing for piles. Posts shall be sized to match existing pile at bearing surface. Contractor shall field measure prior to ordering materials.

D. Fastening: Vertical bolts shall have nuts on the lower end. Where bolts are used to fasten timber to timber, timber to concrete, or timber to steel, bolt members together when they are installed and retighten immediately prior to final acceptance of contract. Provide bolts having sufficient additional threading to provide at least 3/8 inch per foot thickness of timber for future retightening.

E. Shims and Dowels: Provide timber shims as shown in the Contract Drawings. Provide wood dowels for all bolt holes remaining after removal work.

3.02 FIELD TREATMENT

A. Timberwork: Field treat cuts, bevels, notches, refacing and abrasions made in the field in treated piles or timbers in accordance with AWPA M4, MSDS and CIS. Wood preservatives are restricted. Use pesticides and shall be applied according to applicable standards. Trim cuts and abrasions before field treatment. Paint depressions or openings around bolt holes, joints, or gaps including recesses formed by counterboring, with preservative treatment used for piles or timber; and after bolt or screw is in place, fill with hot pitch or a bitumastic compound.

B. Piling and Post Protection: In accordance with AWPA M4, immediately after pile or post tops are cut off and prior to placement, protect pile or post top with several heavy applications of the same preservative used to treat the pile or post, or else copper naphthenate solutions containing a minimum of 2 percent copper metal may be used with treated products. Seal ends with a heavy application of coal-tar pitch or other appropriate sealer.

C. Galvanized Surfaces: Repair and recoat zinc coating which

has been field or shop cut, burned by welding, abraded, or otherwise damaged to such an extent as to expose the base metal. Thoroughly clean the damaged area by wire brushing and remove traces of welding flux and loose or cracked zinc coating prior to painting. Paint cleaned area in accordance with Section 05 22 00, Part 3.05.

END OF SECTION

DIVISION 31 – EARTHWORK

31 62 19 – WOOD MARINE PILES

PART 1 GENERAL

1.01 SECTION INCLUDES: This section applies to all work required for the selection and installation of timber fender piles as shown on the drawings and specified herein.

1.02 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

A. AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)

AWPA M4 (2011)	Standard for the Care of Preservative-Treated Wood Products
AWPA U1 (2014)	Use Category System: User Specification for Treated Wood

B. ASTM INTERNATIONAL (ASTM)

ASTM D 25	(1999; R 2005) Round Timber Piles

1.03 SUBMITTALS: Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

A. Product Data - Piles

B. Pile driving equipment: Submit complete descriptions of pile driving equipment, including hammers, leads, driving helmets, cushion blocks, driving blocks, collars, extractors, and other appurtenances for approval prior to commencement of work.

C. Closeout Documents: Job piles driving records. Submit pile driving records within 15 calendar days after completion of driving.

PART 2 PRODUCTS

2.01 MATERIALS

A. Piles: Provide Douglas fir piles conforming to ASTM D 25 and other requirements as specified. Piles shall be in one piece of the length as specified in the drawings.

Pile circumferences shall be:

1) Measured at 3 feet from the butt end.

2) Tip circumference shall be 22 inches as indicated.

B. Timber Treatment: Timber piles shall be ACZA pressure treated to 2.5 pcf retention in accordance with AWPA U1. Field treat all cut and drilled timber surfaces with two coats of preservative containing copper napthanate solution (minimum 2% metallic solution) per AWPA M4

PART 3 EXECUTION

3.01 INSTALLATION

A. Pile Driving Equipment: Pile driving equipment shall meet the following requirements.

1) Pile Driving Hammers: Piles shall be driven using a vibratory hammer with a minimum embedment of 20 feet and a top elevation as indicated in the drawings.

B. Records: Keep a complete and accurate driving record of each pile driven. Indicate pile location, deviations from design location, diameter, original length, mudline elevation, tip elevation, cutoff elevation, hammer data including rate of operation, make, and size, and unusual pile behavior or circumstances experienced during driving such as redriving, heaving, weaving, obstructions, and unanticipated interruptions. Make pile driving records available to the Contracting Officer at the job site, a minimum of 24 hours after each day of pile driving. Include in the construction records the wood species, preservative type, retention, and producer of installed treated timber.

C. Damaged Piles: Driving of piles shall not subject them to damage. Piles which are damaged, split, broomed, or broken by reason of internal defects or by improper driving below cutoff elevation so as to impair them for the purpose intended shall be removed and replaced. Minor damaged areas of treated piles shall be brush-coated with the same preservative used to treat the piles.

END OF SECTION

General Decision Number: CA150033 09/04/2015 CA33

Superseded General Decision Number: CA20140033

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: Los Angeles County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of $10.10 for 2015 that applies to all contracts subject to the Davis-Bacon Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.10 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/02/2015
1	01/16/2015
2	01/23/2015
3	02/13/2015
4	02/20/2015
5	03/27/2015
6	05/08/2015
7	06/19/2015
8	07/10/2015
9	07/17/2015
10	07/24/2015
11	07/31/2015
12	08/07/2015
13	08/14/2015
14	09/04/2015

ASBE0005-002 06/30/2014

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....	$ 35.44	19.36
Fire Stop Technician		

Request for Proposal HSCG88-15-R-PQQ152
(Application of Firestopping
Materials for wall openings
and penetrations in walls,
floors, ceilings and curtain
walls).....$ 24.34 16.09

ASBE0005-004 06/24/2013

Rates Fringes

Asbestos Removal
worker/hazardous material
handler (Includes
preparation, wetting,
stripping, removal,
scrapping, vacuuming, bagging
and disposing of all
insulation materials from
mechanical systems, whether
they contain asbestos or not)....$ 16.95 10.23

BOIL0092-003 10/01/2012

Rates Fringes

BOILERMAKER.....$ 41.17 28.27
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* BRCA0004-007 05/01/2015

Rates Fringes

BRICKLAYER; MARBLE SETTER.....$ 37.93 14.50

*The wage scale for prevailing wage projects performed in Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine Palms, Needles and 1-15 corridor (Barstow to the Nevada State Line) will be Three Dollars ($3.00) above the standard San Bernardino/Riverside County hourly wage rate

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BRCA0018-004 06/01/2014

Rates Fringes

MARBLE FINISHER.....$ 28.45 11.38
TILE FINISHER.....$ 23.78 9.84
TILE LAYER.....$ 35.14 14.33

BRCA0018-010 09/01/2013

Rates Fringes

TERRAZZO FINISHER.....$ 26.59 10.34
TERRAZZO WORKER/SETTER.....$ 33.63 11.13

CARP0409-001 07/01/2010

Rates Fringes

CARPENTER
(1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor Worker and acoustical installer.....$ 37.35 11.08
(2) Millwright.....$ 37.85 11.08
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Framer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial).....$ 37.48 11.08
(4) Pneumatic Nailer, Power Stapler.....$ 37.60 11.08
(5) Sawfiler.....$ 37.44 11.08
(6) Scaffold Builder.....$ 28.55 11.08
(7) Table Power Saw Operator.....$ 37.45 11.08

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): $0.13 per hour additional.

CARP0409-002 07/01/2008

	Rates	Fringes
Diver		
(1) Wet	$ 663.68	9.82
(2) Standby	$ 331.84	9.82
(3) Tender	$ 323.84	9.82
(4) Assistant Tender	$ 299.84	9.82

Amounts in "Rates' column are per day

CARP0409-005 07/01/2010

	Rates	Fringes
Drywall		
DRYWALL INSTALLER/LATHER	$ 37.35	11.08
STOCKER/SCRAPPER	$ 10.00	6.67

CARP0409-008 08/01/2010

	Rates	Fringes
Modular Furniture Installer	$ 17.00	7.41

ELEC0011-004 07/27/2015

	Rates	Fringes

ELECTRICIAN (INSIDE
ELECTRICAL WORK)
Journeyman Electrician.....$ 40.80 26.59
ELECTRICIAN (INTELLIGENT
TRANSPORTATION SYSTEMS Street
Lighting, Traffic Signals,
CCTV,and Underground Systems)
Journeyman Transportation
Electrician.....$ 40.80 26.59
Technician.....$ 30.00 26.07

FOOT NOTE:
CABLE SPLICER & INSTRUMENT PERSON: Recieve 5% additional per hour above Journeyman Electrician basic hourly rate.
TUNNEL WORK: 10% additional per hour.

SCOPE OF WORK - TRANSPORTATION SYSTEMS

ELECTRICIAN:
Installation of street lights and traffic signals,including electrical circuitry, programmable controllers, pedestal-mounted electrical meter enclosures and laying of pre-assembled multi-conductor cable in ducts, layout of electrical systems and communication installation, including proper position of trench depths and radius at duct banks, location for man holes, pull boxes, street lights and traffic signals. Installation of underground ducts for electrical,telephone, cable television and communication systems. Pulling,termination and splicing of traffic signal and street lighting conductors and electrical systems including interconnect,detector loop, fiber optic cable and video/cable.

TECHNICIAN:
Distribution of material at job site, manual excavation and backfill, installation of system conduits and raceways for electrical, telephone, cable television and communication systems. Pulling, terminating and splicing of traffic signal and street lighting conductors and electrical systems including interconnect, detector loop, fiber optic cable and video/data.

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* ELEC0011-005 05/26/2014

COMMUNICATIONS & SYSTEMS WORK (excludes any work on Intelligent Transportation Systems or CCTV highway systems)

	Rates	Fringes
Communications System		
Installer	$ 28.30	12.43
Technician	$ 30.10	12.48

SCOPE OF WORK The work covered shall include the installation, testing, service and maintenance, of the following systems that utilize the transmission and/or

transference of voice, sound, vision and digital for commercial, education, security and entertainment purposes for TV monitoring and surveillance, background foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call system, radio page, school intercom and sound, burglar alarms and low voltage master clock systems.

A. Communication systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems SCADA (Supervisory control/data acquisition PCM (Pulse code modulation) Inventory control systems Digital data systems Broadband & baseband and carriers Point of sale systems VSAT data systems Data communication systems RF and remote control systems Fiber optic data systems

B. Sound and Voice Transmission/Transference Systems Background-Foreground Music Intercom and Telephone Interconnect Systems Sound and Musical Entertainment Systems Nurse Call Systems Radio Page Systems School Intercom and Sound Systems Burglar Alarm Systems Low-Voltage Master Clock Systems Multi-Media/Multiplex Systems Telephone Systems RF Systems and Antennas and Wave Guide

C. *Fire Alarm Systems-installation, wire pulling and testing.

D. Television and Video Systems Television Monitoring and Surveillance Systems Video Security Systems Video Entertainment Systems Video Educational Systems CATV and CCTV

E. Security Systems, Perimeter Security Systems, Vibration Sensor Systems
Sonar/Infrared Monitoring Equipment, Access Control Systems, Card Access Systems

*Fire Alarm Systems
1. Fire Alarms-In Raceways: Wire and cable pulling in raceways performed at the current electrician wage rate and fringe benefits.
2. Fire Alarms-Open Wire Systems: installed by the Technician.

ELEC1245-001 06/01/2015

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer	$ 52.85	15.53
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead &		

underground distribution line equipment)	$ 42.21	14.32
(3) Groundman	$ 32.28	14.03
(4) Powderman	$ 47.19	14.60

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

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ELEV0018-001 01/01/2015

	Rates	Fringes
ELEVATOR MECHANIC	$ 49.90	28.38

FOOTNOTE:
PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

ENGI0012-003 07/06/2015

	Rates	Fringes
OPERATOR: Power Equipment (All Other Work)		
GROUP 1	$ 39.95	23.35
GROUP 2	$ 40.73	23.35
GROUP 3	$ 41.02	23.35
GROUP 4	$ 42.51	23.35
GROUP 5	$ 41.86	23.35
GROUP 6	$ 41.83	23.35
GROUP 8	$ 42.84	23.35
GROUP 9	$ 42.19	23.35
GROUP 10	$ 42.96	23.35
GROUP 11	$ 42.31	23.35
GROUP 12	$ 43.13	23.35
GROUP 13	$ 43.23	23.35
GROUP 14	$ 43.26	23.35
GROUP 15	$ 43.34	23.35
GROUP 16	$ 43.46	23.35
GROUP 17	$ 43.63	23.35
GROUP 18	$ 43.73	23.35
GROUP 19	$ 43.84	23.35
GROUP 20	$ 43.96	23.35
GROUP 21	$ 44.13	23.35
GROUP 22	$ 44.23	23.35
GROUP 23	$ 44.34	23.35
GROUP 24	$ 44.46	23.35
GROUP 25	$ 44.63	23.35
OPERATOR: Power Equipment (Cranes, Piledriving & Hoisting)		
GROUP 1	$ 41.30	23.35

GROUP 2	$ 42.08	23.35
GROUP 3	$ 42.37	23.35
GROUP 4	$ 42.51	23.35
GROUP 5	$ 42.73	23.35
GROUP 6	$ 42.84	23.35
GROUP 7	$ 42.96	23.35
GROUP 8	$ 43.13	23.35
GROUP 9	$ 43.30	23.35
GROUP 10	$ 44.30	23.35
GROUP 11	$ 45.30	23.35
GROUP 12	$ 46.30	23.35
GROUP 13	$ 47.30	23.35

OPERATOR: Power Equipment
(Tunnel Work)

GROUP 1	$ 41.80	23.35
GROUP 2	$ 42.58	23.35
GROUP 3	$ 42.87	23.35
GROUP 4	$ 43.01	23.35
GROUP 5	$ 43.23	23.35
GROUP 6	$ 43.34	23.35
GROUP 7	$ 43.46	23.35

PREMIUM PAY:
$3.75 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground);

Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter(concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld

150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bendng machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self- loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote- control earth-moving equipment operator (operating a second piece of equipment: $1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds.and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDRIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SMB to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south

boundary of T1s, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point whch is the SW corner of Section 34.T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a think strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM.

Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

ENGI0012-004 08/01/2015

	Rates	Fringes
OPERATOR: Power Equipment (DREDGING)		
(1) Leverman	$ 49.50	23.60
(2) Dredge dozer	$ 43.53	23.60
(3) Deckmate	$ 43.42	23.60
(4) Winch operator (stern winch on dredge)	$ 42.87	23.60
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand	$ 42.33	23.60
(6) Barge Mate	$ 42.94	23.60

IRON0377-002 07/01/2015

	Rates	Fringes
Ironworkers:		
Fence Erector	$ 27.08	20.21
Ornamental, Reinforcing and Structural	$ 33.50	28.85

PREMIUM PAY:

$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland,
Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base,

$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0300-001 07/01/2014

	Rates	Fringes
Brick Tender	$ 29.12	15.78

LABO0300-003 07/01/2014

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1	$ 35.74	16.48
GROUP 2	$ 36.06	16.48
GROUP 3	$ 36.52	16.48
GROUP 4	$ 37.21	16.48
LABORER		
GROUP 1	$ 30.19	16.48
GROUP 2	$ 30.74	16.48
GROUP 3	$ 31.29	16.48
GROUP 4	$ 32.84	16.48
GROUP 5	$ 33.19	16.48

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and

similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellower

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form

of motive power; Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars;; Vibrator person, jack hammer, pneumatic tools (except driller); Bull gang mucker, track person; Concrete crew, including rodder and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

LABO0300-005 01/01/2014

	Rates	Fringes
Asbestos Removal Laborer	$ 28.00	15.25

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO0345-001 07/01/2014

	Rates	Fringes
LABORER (GUNITE)		
GROUP 1	$ 34.79	17.92
GROUP 2	$ 33.84	17.92
GROUP 3	$ 30.30	17.92

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or

above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0" above base level and which work must be performed in whole or in part more than 75'-0" above base level, that work performed above the 75'-0" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

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* LABO1184-001 08/01/2015

	Rates	Fringes
Laborers: (HORIZONTAL DIRECTIONAL DRILLING)		
(1) Drilling Crew Laborer	$ 32.60	12.16
(2) Vehicle Operator/Hauler	$ 32.77	12.16
(3) Horizontal Directional Drill Operator	$ 34.62	12.16
(4) Electronic Tracking Locator	$ 36.62	12.16
Laborers: (STRIPING/SLURRY SEAL)		
GROUP 1	$ 33.76	15.04
GROUP 2	$ 35.06	15.04
GROUP 3	$ 37.07	15.04
GROUP 4	$ 38.81	15.04

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system

installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

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LABO1414-001 08/05/2015

	Rates	Fringes
LABORER		
PLASTER CLEAN-UP LABORER	$ 30.16	17.11
PLASTER TENDER	$ 32.71	17.11

Work on a swing stage scaffold: $1.00 per hour additional.

PAIN0036-001 07/01/2015

	Rates	Fringes
Painters: (Including Lead Abatement)		
(1) Repaint (excludes San Diego County)	$ 27.29	12.83
(2) All Other Work	$ 30.72	12.83

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities.

PAIN0036-006 10/01/2014

	Rates	Fringes
DRYWALL FINISHER/TAPER		
Antelope Valley North of the following Boundary: Kern County Line to Hwy. #5, South on Hwy. #5 to Hwy. N2, East on N2 to Palmdale Blvd., to Hwy. #14, South to Hwy. #18, East to Hwy. #395	$ 32.11	15.91
Remainder of Los Angeles County	$ 35.18	15.91

PAIN0036-015 06/01/2015

	Rates	Fringes

GLAZIER.....$ 40.70 20.92

FOOTNOTE: Additional $1.25 per hour for work in a condor, from the third (3rd) floor and up Additional $1.25 per hour for work on the outside of the building from a swing stage or any suspended contrivance, from the ground up

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PAIN1247-002 01/01/2015

Rates Fringes

SOFT FLOOR LAYER.....$ 29.85 13.56

PLAS0200-009 08/05/2015

Rates Fringes

PLASTERER.....$ 38.44 13.77

PLAS0500-002 07/01/2015

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...$ 32.30 20.65

PLUM0016-001 07/01/2015

Rates Fringes

PLUMBER/PIPEFITTER
Plumber and Pipefitter
All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work.....$ 45.96 20.71
Work ONLY on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space.....$ 44.54 19.73
Work ONLY on strip malls, light commercial, tenant improvement and remodel work.....$ 35.16 18.06

PLUM0345-001 07/01/2014

Rates Fringes

PLUMBER

Landscape/Irrigation Fitter.$ 29.27 19.75
Sewer & Storm Drain Work....$ 33.24 17.13

ROOF0036-002 08/01/2014

	Rates	Fringes
ROOFER	$ 35.02	13.57

FOOTNOTE: Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal tar pitch, the entire roofing crew shall receive $1.75 per hour "pitch premium" pay.

SFCA0669-013 07/01/2013

DOES NOT INCLUDE THE CITY OF POMONA, CATALINA ISLAND, AND THAT PART OF LOS ANGELES COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

	Rates	Fringes
SPRINKLER FITTER	$ 34.19	19.37

SFCA0709-005 01/01/2015

THE CITY OF POMOMA, CATALINA ISLAND, AND THAT PART OF LOS ANGELES COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

	Rates	Fringes
SPRINKLER FITTER (Fire)	$ 40.46	24.17

SHEE0105-002 06/01/2015

LOS ANGELES (South of a straight line between gorman and Big Pines including Catalina Island)

	Rates	Fringes
SHEET METAL WORKER		
(1) Light Commercial: Work on general sheet metal and heating and AC up to 4000 sq ft	$ 24.76	9.51
(2) Modernization : Excluding New Construction - Under 5000 sq. ft. Does not include modification, upgrades, energy management, or conservation improvements of central heating and AC		

equpment.....$ 41.26 25.38

SHEE0105-003 07/01/2015

LOS ANGELES (South of a straight line drawn between Gorman and Big Pines)and Catalina Island, INYO, KERN (Northeast part, East of Hwy 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES

	Rates	Fringes
SHEET METAL WORKER		
(1) Commercial - New Construction and Remodel work	$ 41.26	25.38
(2) Industrial work including air pollution control systems, noise abatement, hand rails, guard rails, excluding aritechtural sheet metal work, excluding A-C, heating, ventilating systems for human comfort	$ 41.26	25.38

SHEE0105-004 01/01/2015

KERN (Excluding portion East of Hwy 395) & LOS ANGELES (North of a straight line drawn between Gorman and Big Pines including Cities of Lancaster and Palmdale) COUNTIES

	Rates	Fringes
SHEET METAL WORKER	$ 30.91	23.71

TEAM0011-002 07/01/2014

	Rates	Fringes
TRUCK DRIVER		
GROUP 1	$ 27.99	24.14
GROUP 2	$ 28.14	24.14
GROUP 3	$ 28.27	24.14
GROUP 4	$ 28.46	24.14
GROUP 5	$ 28.49	24.14
GROUP 6	$ 28.52	24.14
GROUP 7	$ 28.77	24.14
GROUP 8	$ 29.02	24.14
GROUP 9	$ 29.22	24.14
GROUP 10	$ 29.52	24.14
GROUP 11	$ 30.02	24.14
GROUP 12	$ 30.45	24.14

WORK ON ALL MILITARY BASES:
PREMIUM PAY: $3.00 per hour additional.
[29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB, El Centro Naval Facility, Fort Irwin, Marine Corps Logistics Base at Nebo & Yermo, Mountain Warfare Training

Center, Bridgeport, Point Arguello, Point Conception, Vandenberg AFB]

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles - 2 axles; Traffic control pilot car excluding moving heavy equipment permit load; Truck mounted broom

GROUP 3: Driver of vehicle or combination of vehicles - 3 axles; Boot person; Cement mason distribution truck; Fuel truck driver; Water truck - 2 axle; Dump truck, less than 16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire person ($0.50 additional for tire person); Pipeline and utility working truck driver, including winch truck and plastic fusion, limited to pipeline and utility work; Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck, 6-1/2 yds. water level and over; Vehicle or combination of vehicles - 4 or more axles; Oil spreader truck; Dump truck, 16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver; Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles or over

GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - $1.25 additional when operating winch or similar special attachments

GROUP 12: Boom Truck 17K and above

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within

the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the

interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

August 17, 2015

Mr. Dave Stalters
Branch Chief, Environmental Management Branch
United States Coast Guard
1301 Clay Street Suite 700N
Oakland, California 94612

DEPARTMENT OF THE ARMY NATIONWIDE PERMIT VERIFICATION

Dear Mr. Stalters:

I am responding to your request (SPL-2015-00397-PKK) for a Department of the Army permit for your proposed project, Industrial Wharf Rehabilitation, USCG Base Project. The proposed project is located at San Pedro Bay, Los Angeles County, California (Lat: 33.72825, Long: -118.27022).

Because construction of this project would result in a discharge of dredged and/or fill material into waters of the United States and would place structures or consist of work in or affecting navigable waters of the United States a Department of the Army permit is required pursuant to Section 404 of the Clean Water Act (33 USC 1344; 33 CFR parts 323 and 330) and Section 10 of the Rivers and Harbors Act (33 USC 403). I have determined your proposed project, if constructed as described in your application, would comply with Nationwide Permit (NWP) 9 (Structures in Fleeting and Anchorage Areas). Specifically, and as shown in the enclosed figures, you are authorized to:

1. Conduct repair work on the support structure of a 0.43 acre wharf.
    a) Replace forty-one (41) timber piles with 12-inch diameter non-creosote timber piles, wrapped in a PVC jacket;
    b) Temporarily excavate 280 square feet (2 square feet around each pile) of existing seabed, rip-rap, and/or concrete debris to access and repair piles. All excavated materials (including rip-rap)will be replaced in-kind;
    c) Repair thirty-six (36) piles using repair Type 1 - Long Post Repair (Enclosure 4);
    d) Repair eleven (11) piles using repair Type 2 - Epoxy Jacket Repairs (Enclosure 4);
    e) Temporarily install formwork, external bracing, banding, friction type collars, and/or clamps as required to position stay-in-place jacket in place during construction;
    f) Replace eight (8) existing camels (Camels are large timber poles 45 feet long and 2 feet in diameter chained to the seaward edge of the wharf. They act as bumpers for docking boats) in-kind; and
    g) Remove and reinstall all bracing support hardware in-kind.

For this NWP verification letter to be valid, you must comply with all of the terms and conditions in Enclosure 1. Furthermore, you must comply with the non-discretionary Special Conditions listed below:

1. Silt curtains shall be installed per manufacture specifications for the duration of sediment disturbing work.

2. Within 45 calendar days of completion of authorized work in waters of the U.S., the Permittee shall submit to the Corps Regulatory Division a post-project implementation memorandum including the following information:

A) Date(s) work within waters of the U.S. was initiated and completed;
B) Summary of compliance status with each special condition of this permit (including any noncompliance that previously occurred or is currently occurring and corrective actions taken or proposed to achieve compliance);
C) Color photographs (including map of photopoints) taken at the project site before and after construction for those aspects directly associated with permanent impacts to waters of the U.S. such that the extent of authorized fills can be verified;
D) One copy of "as built" drawings for the entire project. Electronic submittal (Adobe PDF format) is preferred. All sheets must be signed, dated, and to-scale. If submitting paper copies, sheets must be no larger than 11 x 17 inches; and
E) Signed Certification of Compliance (attached as part of this permit package).

3. The permitted activity shall not interfere with the right of the public to free navigation on all navigable waters of the United States as defined by 33 C.F.R. Part 329.

4. Treated pilings shall not be placed in navigable waters unless all of the following conditions are met:

A) The project involves the repair of existing structures that were originally constructed using wood products;
B) The treated pilings are wrapped in plastic;
C) Measures are taken to prevent damage to plastic wrapping from boat use. Such measures may include installation of rub strips or bumpers;
D) The plastic wrapping is sealed at all joints to prevent leakage; and
E) The plastic material is expected to maintain its integrity for at least ten years, and plastic wrappings that develop holes or leaks must be repaired or replaced in a timely manner by the Permittee.

5. No other modifications or work shall occur to the structure permitted herein.

6. A pre-construction survey of the project area for Caulerpa taxifolia (Caulerpa) shall be conducted in accordance with the Caulerpa Control Protocol (see http://swr.nmfs.noaa.gov/hcd/caulerpa/ccp.pdf) not earlier than 90 calendar days prior to planned

construction and not later than 30 calendar days prior to construction. The results of that survey shall be furnished to the Corps Regulatory Division, NOAA Fisheries, and the California Department of Fish and Game (CDFG) at least 15 calendar days prior to initiation of work in navigable waters. In the event that Caulerpa is detected within the project area, the Permittee shall not commence work until such time as the infestation has been isolated, treated, and the risk of spread is eliminated as confirmed in writing by the Corps Regulatory Division, in consultation with NOAA Fisheries and CDFG.

7. Prior to construction, a pre-project eelgrass survey should be conducted in accordance with the California Eelgrass Mitigation Policy (CEMP) (http://www.westcoast.fisheries.noaa.gov/publications/habitat/california_eelgrass_mitigation/Final CEMP October 2014/cemp_oct_2014_final.pdf). The pre-construction survey results shall be submitted to the Corps Regulatory Division and NOAA Fisheries within 60 days prior to the start of construction. If the pre-project survey demonstrates eelgrass presence within the project vicinity, a post-project survey should be conducted and impacts to eelgrass mitigated in accordance with the CEMP.

8. The Permittee shall discharge only clean construction materials suitable for use in the oceanic environment. The Permittee shall ensure no debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, from construction shall be allowed to enter into or placed where it may be washed by rainfall or runoff into waters of the United States. Upon completion of the project authorized herein, any and all excess material or debris shall be completely removed from the work area and disposed of in an appropriate upland site.

9. The Permittee shall notify the Corps Regulatory Division of the date of commencement of operations not less than 14 calendar days prior to commencing work, and shall notify the Corps of the date of completion of operations at least five calendar days prior to such completion.

10. To ensure navigational safety, the permittee shall provide appropriate notifications to the U.S. Coast Guard as described below:

Commander, 11th Coast Guard District (dpw)
TEL: (510) 437-2980
E-mail: d11LNM@uscg.mil
Website: http://www.uscg.mil/dp/lnmrequest.asp

U.S. Coast Guard, Sector LA-LB (COTP)
TEL: (310) 521-3860
E-mail: john.p.hennigan@uscg.mil

A) The Permittee shall notify the U.S. Coast Guard, Commander, 11th Coast Guard District (dpw) and the U.S. Coast Guard, Sector LA-LB (COTP) (contact information shown above),

not less than 14 calendar days prior to commencing work and as project information changes. The notification shall be provided by e-mail with at least the following information, transmitted as an attached Word or PDF file:

1) Project description including the type of operation (i.e. dredging, diving, construction, etc).
2) Location of operation, including Latitude / Longitude (NAD 83).
3) Work start and completion dates and the expected duration of operations. The Coast Guard needs to be notified if these dates change.
4) Vessels involved in the operation (name, size and type).
5) VHF-FM radio frequencies monitored by vessels on scene.
6) Point of contact and 24 -hour phone number.
7) Potential hazards to navigation.
8) Chart number for the area of operation.
9) Recommend the following language be used in the LNM: "Mariners are urged to transit at their slowest safe speed to minimize wake, and proceed with caution after passing arrangements have been made."

B) The Permittee and its contractor(s) shall not remove, relocate, obstruct, willfully damage, make fast to, or interfere with any aids to navigation defined at 33 C.F.R. chapter I, subchapter C, part 66. The Permittee shall ensure its contractor notifies the Eleventh Coast Guard District in writing, with a copy to the Corps Regulatory Division, not less than 30 calendar days in advance of operating any equipment adjacent to any aids to navigation that requires relocation or removal. Should any federal aids to navigation be affected by this project, the Permittee shall submit a request, in writing, to the Corps Regulatory Division as well as the U.S. Coast Guard, Aids to Navigation office (contact information provided above). The Permittee and its contractor are prohibited from relocating or removing any aids to navigation until authorized to do so by the Corps Regulatory Division and the U.S. Coast Guard.

C) Should the Permittee determine the work requires the temporary placement and use of private aids to navigation in navigable waters of the U.S., the Permittee shall submit a request in writing to the Corps Regulatory Division as well as the U.S. Coast Guard, Aids to Navigation office (contact information provided above). The Permittee is prohibited from establishing private aids to navigation in navigable waters of the U.S. until authorized to do so by the Corps Regulatory Division and the U.S. Coast Guard.

D) The COTP may modify the deployment of marine construction equipment or mooring systems to safeguard navigation during project construction. The Permittee shall direct questions concerning lighting, equipment placement, and mooring to the appropriate COTP.

11. Within 30 calendar days of completion of the project authorized by this permit, the Permittee shall conduct a post-project survey indicating changes to structures and other features in navigable

waters. The Permittee shall forward a copy of the survey, as well as a copy of this permit, to the Corps Regulatory Division (via e-mail at: Regulatory.SPL@usace.army.mil) and to the National Oceanic and Atmospheric Administration for updating nautical charts (via e-mail at: Chris.Libeau@noaa.gov). Post-project surveys/as-built plans should be provided electronically in two formats: .pts (xyz) and one of, .pdf, CAD, or GIS. Include the following header metadata: project name, surveyor's name and company, area surveyed (acres), type of survey method, date of survey, geographic control points (for example: latitude/longitude, plane coordinates), geographic coordinate system (use NAD83), geographic projection, units (use US Survey Feet), and tide gage location. For all subsurface structures and dredge projects include elevation (z coordinate) datum indicated as a negative below MLLW, and also indicate the survey system and bin sizes as appropriate.

12. The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be required, upon due notice from the Corps of Engineers Regulatory Division, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

This verification is valid through March 18, 2017. If on March 18, 2017 you have commenced or are under contract to commence the permitted activity you will have an additional twelve (12) months to complete the activity under the present NWP terms and conditions. However, if I discover noncompliance or unauthorized activities associated with the permitted activity I may request the use of discretionary authority in accordance with procedures in 33 CFR § 330.4(e) and 33 CFR § 330.5(c) or (d) to modify, suspend, or revoke this specific verification at an earlier date. Additionally, at the national level the Chief of Engineers, any time prior to March 18, 2017, may chose to modify, suspend, or revoke the nationwide use of a NWP after following procedures set forth in 33 CFR § 330.5. It is incumbent upon you to comply with all of the terms and conditions of this NWP verification and to remain informed of any change to the NWPs.

A NWP does not grant any property rights or exclusive privileges. Additionally, it does not authorize any injury to the property, rights of others, nor does it authorize interference with any existing or proposed Federal project. Furthermore, it does not obviate the need to obtain other Federal, state, or local authorizations required by law.

A preliminary jurisdictional determination (JD) has been conducted to determine the extent of U.S. Army Corps of Engineers (Corps) geographic jurisdiction, upon which this NWP verification is based. A preliminary JD is advisory in nature and is a written indication Corps geographic jurisdiction may be present on a particular site, but is not appealable. An approved JD is an official Corps determination of the precisely identified limits of Corps geographic

jurisdiction on a particular site, and is appealable. Should you wish to appeal an approved JD, you may request an administrative appeal under Corps regulations at 33 C.F.R. part 331. Please refer to the enclosed Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form for more information.

Thank you for participating in the regulatory program. If you have any questions, please contact Pamela Kostka at 213-452-3420 or via e-mail at Pamela.K.Kostka@usace.army.mil. Please help me to evaluate and improve the regulatory experience for others by completing the customer survey form at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

Sincerely,

Bonnie L. Rogers
Senior Project Manager
L.A. & San Bernardino Section
North Coast Branch
Regulatory Division

Enclosures
1) NWP General Terms and Conditions
2) Preliminary Jurisdictional Determination and appeal form
3) Vicinity map
4) Engineering plan drawings

LOS ANGELES DISTRICT
U.S. ARMY CORPS OF ENGINEERS

CERTIFICATE OF COMPLIANCE WITH
DEPARTMENT OF THE ARMY NATIONWIDE PERMIT

Permit Number: *SPL-2015-00397-PKK*

Name of Permittee: *Dave Stalters, USCG*

Date of Issuance: *August 17, 2015*

Upon completion of the activity authorized by this permit and the mitigation required by this permit, sign this certificate, and return it by **ONE** of the following methods;

1) Email a digital scan of the signed certificate to Pamela.K.Kostka@usace.army.mil

OR

2) Mail the signed certificate to

U.S. Army Corps of Engineers
ATTN: Regulatory Division SPL-2015-00397-PKK
915 Wilshire Boulevard, Suite 930
Los Angeles, California 90017

I hereby certify that the authorized work and any required compensatory mitigation has been completed in accordance with the NWP authorization, including all general, regional, or activity-specific conditions. Furthermore, if credits from a mitigation bank or in-lieu fee program were used to satisfy compensatory mitigation requirements I have attached the documentation required by 33 CFR 332.3(l)(3) to confirm that the appropriate number and resource type of credits have been secured.

_____ _____

Signature of Permittee Date

Enclosure 1: NATIONWIDE PERMIT (NWP) NUMBER 9: Structures in Fleeting and Anchorage Areas. TERMS AND CONDITIONS

1. Nationwide Permit 9: Structures in Fleeting and Anchorage Areas. Terms:

Your activity is authorized under Nationwide Permit Number 9: Structures in Fleeting and Anchorage Areas and is subject to the following terms:

9. Structures in Fleeting and Anchorage Areas. Structures, buoys, floats and other devices placed within anchorage or fleeting areas to facilitate moorage of vessels where the U.S. Coast Guard has established such areas for that purpose. (Section 10)

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP.

2. Nationwide Permit General Conditions: The following general conditions must be followed in order for any authorization by an NWP to be valid:

1. 1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.
   (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
   (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.
(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.
(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.
(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.
(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.
(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.
(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin

the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.
(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.
(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.
(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.
(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:
(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).
(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.
(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.
    (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.
    (2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.
    (3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).
    (4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.
    (5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.
(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.
(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.
(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.
(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific

conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

    "When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

    _____
    (Transferee)

    _____
    (Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:
    (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
    (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
    (c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early

as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps.

The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the

administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.
(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.
(4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

3. Regional Conditions for the Los Angeles District:

In accordance with General Condition Number 27, "Regional and Case-by-Case Conditions," the following Regional Conditions, as added by the Division Engineer, must be met in order for an authorization by any Nationwide to be valid:

1. For all activities in waters of the U.S. that are suitable habitat for federally listed fish species, the permittee shall design all road crossings to ensure that the passage and/or spawning of fish is not hindered. In these areas, the permittee shall employ bridge designs that span the stream or river, including pier- or pile-supported spans, or designs that use a bottomless arch culvert with a natural stream bed, unless determined to be impracticable by the Corps.

2. Nationwide Permits (NWP) 3, 7, 12-15, 17-19, 21, 23, 25, 29, 35, 36, or 39-46, 48-52 cannot be used to authorize structures, work, and/or the discharge of dredged or fill material that would result in the "loss" of wetlands, mudflats, vegetated shallows or riffle and pool complexes as defined at 40 CFR Part 230.40-45. The definition of "loss" for this regional condition is the same as the definition of "loss of waters of the United States" used for the Nationwide Permit Program. Furthermore, this regional condition applies only within the State of Arizona and within the Mojave and Sonoran (Colorado) desert regions of California. The desert regions in California are limited to four USGS Hydrologic Unit Code (HUC) accounting units (Lower Colorado -150301, Northern Mojave-180902, Southern Mojave-181001, and Salton Sea-181002).

3. When a pre-construction notification (PCN) is required, the appropriate U.S. Army Corps of Engineers (Corps) District shall be notified in accordance with General Condition 31 using either the South Pacific Division PCN Checklist or a signed application form (ENG Form 4345) with an attachment providing information on compliance with all of the General and Regional Conditions. The PCN Checklist and application form are available at: http://www.spl.usace.army.mil/missions/regulatory. In addition, the PCN shall include:
   a. A written statement describing how the activity has been designed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States;
   b. Drawings, including plan and cross-section views, clearly depicting the location, size and dimensions of the proposed activity as well as the location of delineated waters of the U.S. on the site. The drawings shall contain a title block, legend and scale, amount (in cubic yards) and area (in

acres) of fill in Corps jurisdiction, including both permanent and temporary fills/structures. The ordinary high water mark or, if tidal waters, the mean high water mark and high tide line, should be shown (in feet), based on National Geodetic Vertical Datum (NGVD) or other appropriate referenced elevation. All drawings for projects located within the boundaries of the Los Angeles District shall comply with the most current version of the *Map and Drawing Standards for the Los Angeles District Regulatory Division* (available on the Los Angeles District Regulatory Division website at: www.spl.usace.army.mil/missions/regulatory/); and

c. Numbered and dated pre-project color photographs showing a representative sample of waters proposed to be impacted on the project site, and all waters proposed to be avoided on and immediately adjacent to the project site. The compass angle and position of each photograph shall be documented on the plan-view drawing required in subpart b of this regional condition.

4. Submission of a PCN pursuant to General Condition 31 and Regional Condition 3 shall be required for all regulated activities in the following locations:
   a. All perennial waterbodies and special aquatic sites within the State of Arizona and within the Mojave and Sonoran (Colorado) desert regions of California, excluding the Colorado River in Arizona from Davis Dam to River Mile 261 (northern boundary of the Fort Mojave Indian Tribe Reservation). The desert region in California is limited to four USGS HUC accounting units (Lower Colorado -150301, Northern Mojave-180902, Southern Mojave-181001, and Salton Sea-181002).
   b. All areas designated as Essential Fish Habitat (EFH) by the Pacific Fishery Management Council (i.e., all tidally influenced areas - Federal Register dated March 12, 2007 (72 FR 11092)), in which case the PCN shall include an EFH assessment and extent of proposed impacts to EFH. Examples of EFH habitat assessments can be found at: http://www.swr.noaa.gov/efh.htm.
   c. All watersheds in the Santa Monica Mountains in Los Angeles and Ventura counties bounded by Calleguas Creek on the west, by Highway 101 on the north and east, and by Sunset Boulevard and Pacific Ocean on the south.
   d. The Santa Clara River watershed in Los Angeles and Ventura counties, including but not limited to Aliso Canyon, Agua Dulce Canyon, Sand Canyon, Bouquet Canyon, Mint Canyon, South Fork of the Santa Clara River, San Francisquito Canyon, Castaic Creek, Piru Creek, Sespe Creek and the main-stem of the Santa Clara River.

5. Individual Permits shall be required for all discharges of fill material in jurisdictional vernal pools, with the exception that discharges for the purpose of restoration, enhancement, management or scientific study of vernal pools may be authorized under NWPs 5, 6, and 27 with the submission of a PCN in accordance with General Condition 31 and Regional Condition 3.

6. Individual Permits shall be required in Murrieta Creek and Temecula Creek watersheds in Riverside County for new permanent fills in perennial and intermittent watercourses otherwise authorized under NWPs 29, 39, 42 and 43, and in ephemeral watercourses for these NWPs for projects that impact greater than 0.1 acre of waters of the United States. In addition, when NWP 14 is used in conjunction with residential, commercial, or industrial developments the 0.1 acre limit would also apply.

7. Individual Permits (Standard Individual Permit or 404 Letter of Permission) shall be required in San Luis Obispo Creek and Santa Rosa Creek in San Luis Obispo County for bank stabilization projects, and in Gaviota Creek, Mission Creek and Carpinteria Creek in Santa Barbara County for bank stabilization

projects and grade control structures.

8. In conjunction with the Los Angeles District's Special Area Management Plans (SAMPs) for the San Diego Creek Watershed and San Juan Creek/Western San Mateo Creek Watersheds in Orange County, California, the Corps' Division Engineer, through his discretionary authority has revoked the use of the following 26 selected NWPs within these SAMP watersheds: 03, 07, 12, 13, 14, 16, 17, 18, 19, 21, 25, 27, 29, 31, 33, 39, 40, 41, 42, 43, 44, 46, 49, and 50. Consequently, these NWPs are no longer available in those watersheds to authorize impacts to waters of the United States from discharges of dredged or fill material under the Corps' Clean Water Act section 404 authority.

9. Any requests to waive the 300 linear foot limitation for intermittent and ephemeral streams for NWPs 29, 39, 40 and 42, 43, 44, 51 and 52 or to waive the 500 linear foot limitation along the bank for NWP 13, must include the following:
   a. A narrative description of the stream. This should include known information on: volume and duration of flow; the approximate length, width, and depth of the waterbody and characters observed associated with an Ordinary High Water Mark (e.g. bed and bank, wrack line, or scour marks); a description of the adjacent vegetation community and a statement regarding the wetland status of the associated vegetation community (i.e. wetland, non-wetland); surrounding land use; water quality; issues related to cumulative impacts in the watershed, and; any other relevant information.
   b. An analysis of the proposed impacts to the waterbody in accordance with General Condition 31 and Regional Condition 3;
   c. Measures taken to avoid and minimize losses, including other methods of constructing the proposed project; and
   d. A compensatory mitigation plan describing how the unavoidable losses are proposed to be compensated, in accordance with 33 CFR Part 332.

10. The permittee shall complete the construction of any compensatory mitigation required by special condition(s) of the NWP verification before or concurrent with commencement of construction of the authorized activity, except when specifically determined to be impracticable by the Corps. When mitigation involves use of a mitigation bank or in-lieu fee program, the permittee shall submit proof of payment to the Corps prior to commencement of construction of the authorized activity.

4. Further information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
   (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
   (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
   ( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.
   (a) This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
   (b) This permit does not grant any property rights or exclusive privileges.
   (c) This permit does not authorize any injury to the property or rights of others.
   (d) This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
   (a) Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
   (b) Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
   (c) Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
   (d) Design or construction deficiencies associated with the permitted work.
   (e) Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
   (a) You fail to comply with the terms and conditions of this permit.
   (b) The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
   (c) Significant new information surfaces which this office did not consider in reaching the original public interest decision.

   Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 330.5 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. This letter of verification is valid for a period not to exceed two years unless the nationwide permit is modified, reissued, revoked, or expires before that time.

7. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition H below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

8. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: Los Angeles District | File/ORM #: SPL-2015-00397 | PJD Date: Aug 5, 2015

State: CA | City/County: San Pedro Bay/ Los Angeles

Nearest Waterbody: Pacific Ocean

Location: TRS, LatLong or UTM: 33.7280874, -118.270311

Name/ Address of Person Requesting PJD: Dave Stalters
USCG
1301 Clay Street, Suite 700N
Oakland, CA

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 341 linear ft | 71 width | 0.54 acres | Stream Flow: N/A

Wetlands: acre(s) | Cowardin Class: Marine

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: Pacific Ocean | Non-Tidal:

☑ Office (Desk) Determination
☐ Field Determination: Date of Field Trip:

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite quad name:
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☑ Photographs: ☑ Aerial (Name & Date): Google Earth 2015
  - ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

KOSTKA.PAMELA.K.1468176625 Digitally signed by KOSTKA.PAMELA.K.1468176625
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=KOSTKA.PAMELA.K.1468176625
Date: 2015.08.06 14:16:34 -07'00'

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

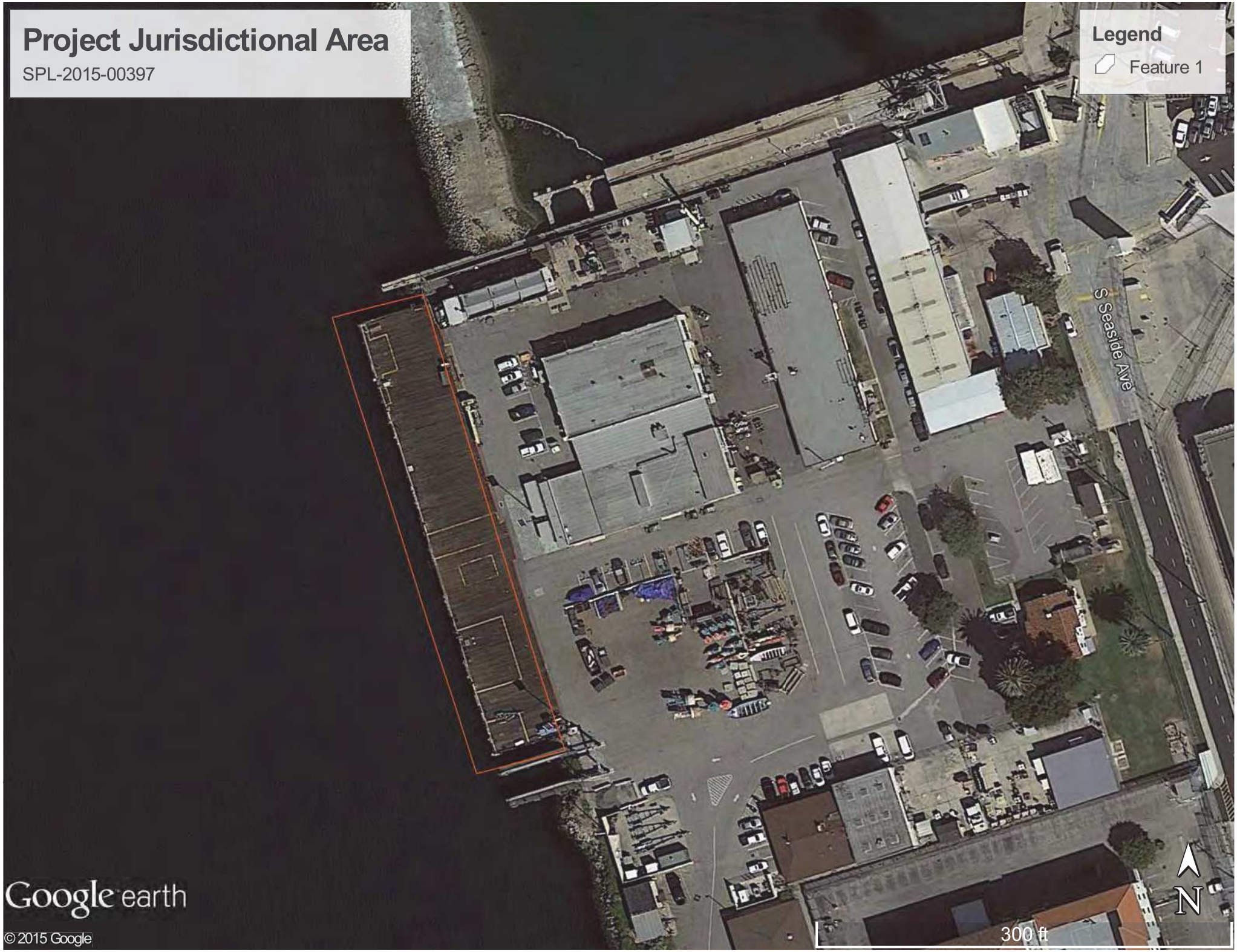
This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	Los Angeles District	File/ORM #	SPL-2015-00397	PJD Date:	Aug 5, 2015
State	CA	City/County	San Pedro Bay/ Los Angeles	Person Requestinq PJD	Dave Stalters

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
1	33.7280874	-118.270311	Marine	0.54 acre	Section 10 tidal

Notes:


Project Jurisdictional Area
SPL-2015-00397
Legend
Feature 1
S Seaside Ave
Google earth
© 2015 Google
300 ft
N

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: USCG, Dave Stalters	File Number: SPL-2015-00397-PKK	Date: August 17, 2015

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
X	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/cecw/pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

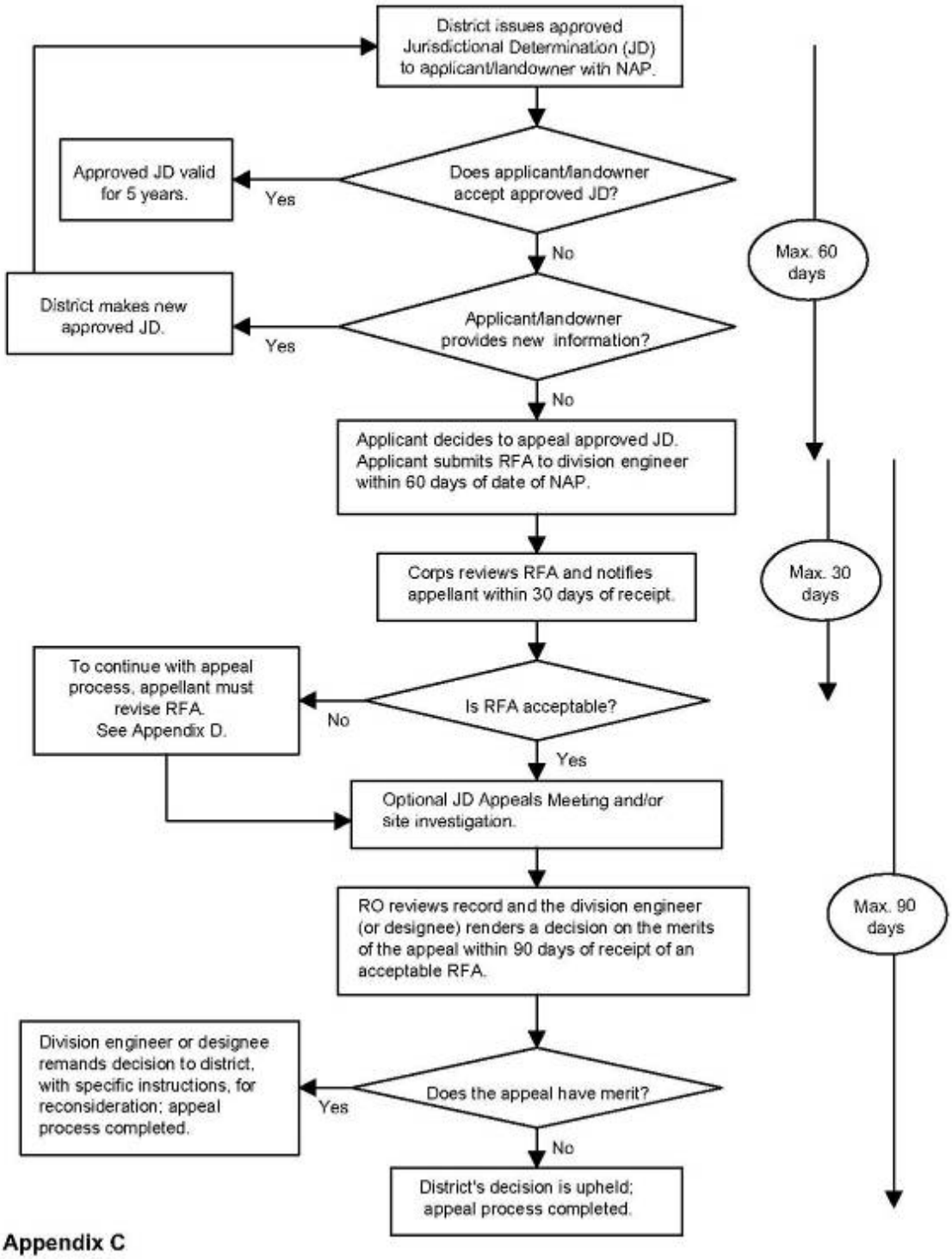
If you have questions regarding this decision and/or the appeal process you may contact: Pamela Kostka
Project Manager
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard, Suite 930
ATTN: Regulatory Division, CESPL-RG
Los Angeles, California 90017-3401
Phone: 213-452-3420
Email:pamela.k.kostka@usace.army.mil

If you only have questions regarding the appeal process you may also contact: Thomas J. Cavanaugh
Administrative Appeal Review Officer,
U.S. Army Corps of Engineers
South Pacific Division
1455 Market Street, 2052B
San Francisco, California 94103-1399
Phone: (415) 503-6574 Fax: (415) 503-6646
Email: thomas.j.cavanaugh@usace.army.mil

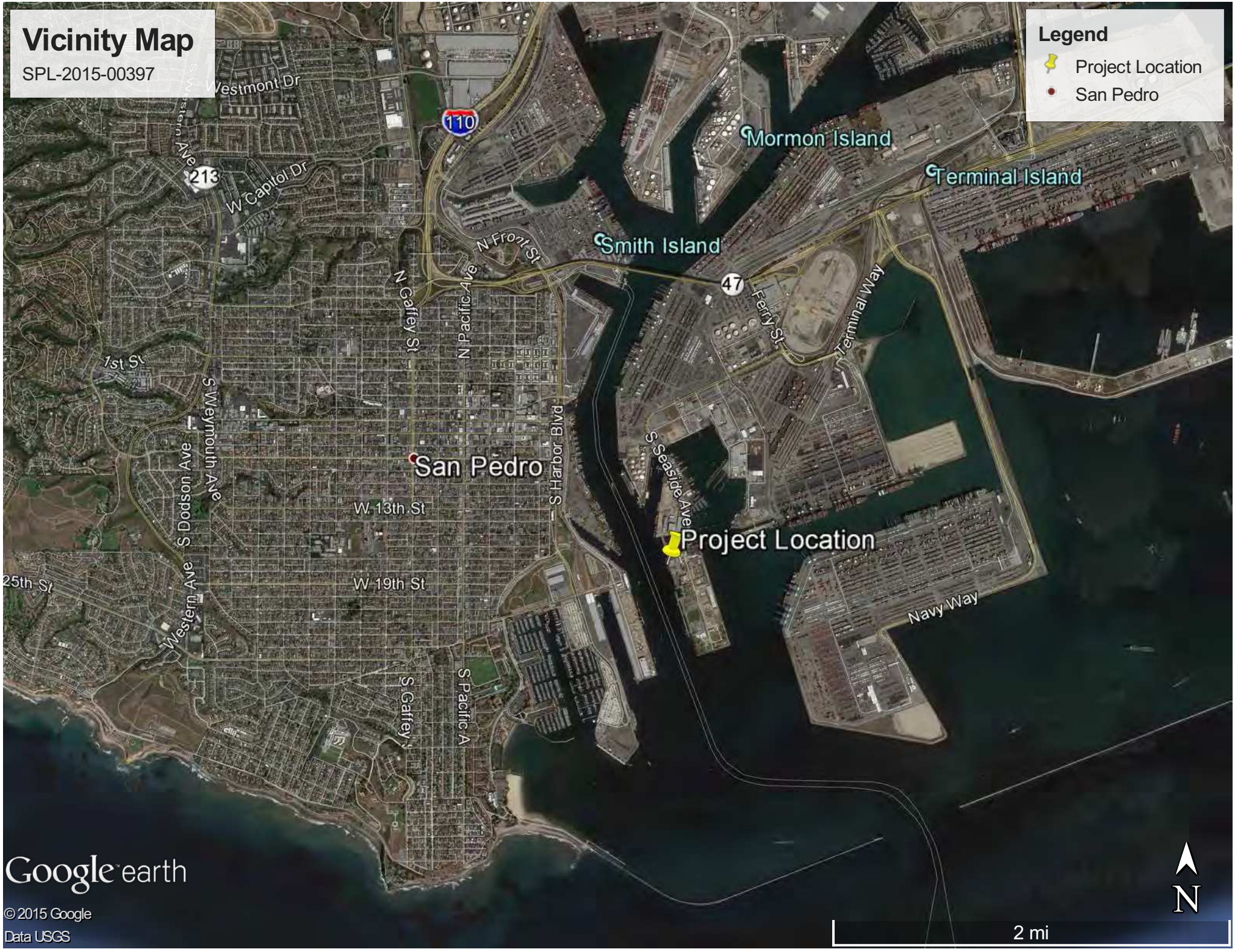
RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		

Administrative Appeal Process for Approved Jurisdictional Determinations



Appendix C


Vicinity Map
SPL-2015-00397
Legend
Project Location
San Pedro
Westmont Dr
110
213
W Capitol Dr
Western Ave
Mormon Island
Terminal Island
Smith Island
N Front St
47
Ferry St
Terminal Way
N Gaffey St
N Pacific Ave
1st St
S Weymouth Ave
S Dodson Ave
S Harbor Blvd
San Pedro
S Seaside Ave
Project Location
W 13th St
W 19th St
25th St
Western Ave
Navy Way
S Gaffey
S Pacific A
Google earth
© 2015 Google
Data USGS
N
2 mi

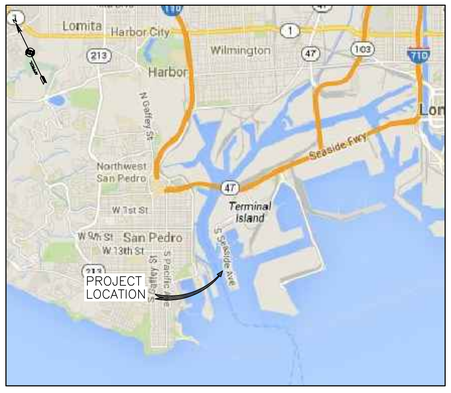
USCG BASE LOS ANGELES / LONG BEACH

SAN PEDRO, CALIFORNIA

LOS ANGELES COUNTY

REPAIR INDUSTRIAL WHARF

JANUARY 2015



VICINITY MAP
NTS

LIST OF DRAWINGS

DISCIPLINE/SHT NO.	SHEET NO.	DRAWING TITLE
	GENERAL	
G-001	1 OF 12	TITLE SHEET
G-002	2 OF 12	PROJECT NOTES
G-003	3 OF 12	EXISTING SITE PLAN
	CIVIL	
C-001	4 OF 12	EXISTING WHARF PLAN
C-002	5 OF 12	EXISTING WHARF SECTIONS
C-003	6 OF 12	SITE PHOTOGRAPHS
	STRUCTURAL	
S-001	7 OF 12	PHASE 1-REPAIR PLAN
S-002	8 OF 12	PHASE 2-REPAIR PLAN
S-003	9 OF 12	WHARF REMOVALS
S-004	10 OF 12	TYPE 1-LONG POST REPAIR
S-005	11 OF 12	TYPE 2-EPOXY REPAIR
S-006	12 OF 12	MISC. REPAIR DETAILS

LOCATION MAP
NTS

TIDAL DATUMS: (1983-2001 TIDAL EPOCH)	
HIGHEST OBSERVED WATER LEVEL (HOWL) (01/10/2005)	7.92'
MEAN HIGHER HIGH WATER (MHHW)	5.49'
MEAN HIGHER WATER (MHW)	4.75'
MEAN TIDE LEVEL (MTL)	2.84'
MEAN SEA LEVEL (MSL)	2.82'
MEAN LOW WATER (MLW)	0.94'
NORTH AMERICAN VERTICAL DATUM (NAVD88)	0.20'
MEAN LOWER LOW WATER (MLLW)	0.00'
LOWEST OBSERVED WATER LEVEL (LOWL) (12/17/1933)	-2.73'

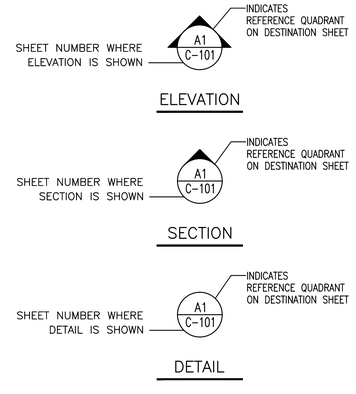
REFERENCE:

NOAA/NOS TIDE STATION ID# 94106600 LOS ANGELES, CALIFORNIA

LEGEND

APPROX	APPROXIMATE
ATON	AID TO NAVIGATION
BM	BENCHMARK
℄	BASELINE
℄	CENTERLINE
CIP	CAST-IN-PLACE
CY	CUBIC YARD
CJ	CONSTRUCTION JOINT
DEG	DEGREE
DIA	DIAMETER
EL	ELEVATION IN FEET
EMBED	EMBEDMENT
GALV	GALVANIZE
HDG	HOT DIPPED GALVANIZE
ID	INSIDE DIAMETER
LBS	POUNDS
LF	LINEAR FEET
MAX	MAXIMUM
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MIN	MINIMUM
MISC	MISCELLANEOUS
MLLW	MEAN LOWER LOW WATER
MLW	MEAN LOW WATER
NTS	NOT TO SCALE
OC	ON CENTER
ℙ	PLATE
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
REF	REFERENCE
SCH	SCHEDULE
SF	SQUARE FEET
SQ	SQUARE
SS	STAINLESS STEEL
SSP	STEEL SHEET PILING
STA	STATION
STD	STANDARD
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
WP	WORKING POINT

ELEVATION, SECTION OR DETAIL SYMBOLS



95% SUBMISSION

APPLEDORE MARINE ENGINEERING, LLC
PORTSMOUTH, NEW HAMPSHIRE
603.766.1870

CONSULTANTS

U.S. COAST GUARD
CIVIL ENGINEERING UNIT
OAKLAND

USCG, CEU OAKLAND
1301 CLAY ST SUITE 700N
OAKLAND, CA 94612-5203

ISSUE		
MARK	DATE	DESCRIPTION

A/E PROJECT NO:	6012
CAD FILE NAME:	6012 CEU LB DRAWINGS
DESIGNED BY:	MLT
DRAWN BY:	KMV
EDITED BY:	MLT
CHECKED BY:	NJE
AS SHOWN	1 = 1

SHEET TITLE

REPAIR INDUSTRIAL WHARF
CEU OAKLAND
SAN PEDRO CA
USCG LOS ANGELES/LONG BEACH
GENERAL
COVER SHEET

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:
TECHNICAL DIRECTOR — DATE

PROJECT NUMBER	DRAWING NUMBER
PROJECT #	DWG #
DISCIPLINE/SHT NO	
G-001	SHEET 1 OF 12

CHECK GRAPHIC SCALE BEFORE USING.

O:\Projects US Coast Guard\CEU Oakland\6012 Base LA LB Industrial Wharf\05 Supporting Docs\03 Drawings\20141218 6012 CEU LB Drawings.dwg 12-19-14 02:07:57 PM MTeeden

GENERAL NOTES:

1. THE DRAWINGS AND SPECIFICATIONS FORM A PART OF THE CONTRACT DOCUMENTS. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFICATIONS AND THE DRAWINGS, THE SPECIFICATIONS SHALL TAKE PRECEDENCE. A COPY OF THE DRAWINGS AND SPECIFICATIONS MUST BE KEPT ONSITE AT ALL TIMES DURING THE PROJECT.
2. COORDINATE ALL WORK WITH FACILITY PERSONNEL ON A DAILY BASIS. THE CONSTRUCTION WORK SHALL NOT INTERFERE WITH ON GOING OPERATIONS. SCHEDULE AND COORDINATE ALL WORK, INCLUDING ALLOWABLE WORK WINDOWS, WITH THE GOVERNMENT, AND MAINTAIN THE WORK SITE TO THE SATISFACTION OF THE GOVERNMENT.
3. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY. DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE FACILITIES AND THEIR COMPONENTS DURING ALL PHASES OF CONSTRUCTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AND BE REMOVED FROM THE GOVERNMENT PROPERTY AFTER COMPLETION OF THE PROJECT. ALL PROPOSED STAGING AREAS SHALL BE COORDINATED WITH THE CONTRACTING OFFICER BEFORE STARTING WORK. TEMPORARY CONSTRUCTION STAGING/STORAGE AREA SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION UPON COMPLETION OF THE PROJECT.
4. MAINTAIN ADEQUATE SURVEY CONTROL AT ALL TIMES TO ESTABLISH AND MAINTAIN ALL LINES AND ELEVATIONS.
5. THIS PROJECT REQUIRES THE IMPLEMENTATION OF A BEST MANAGEMENT PRACTICES PLAN (BMP) DURING ALL CONSTRUCTION WORK TO PREVENT/MINIMIZE ENVIRONMENTAL IMPACTS DURING THE CONSTRUCTION ACTIVITY.
6. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ENVIRONMENTAL CONTROLS AS REQUIRED BY FEDERAL, STATE AND MUNICIPAL REGULATIONS AND PERMITS. ENVIRONMENTAL CONTROLS SHALL INCLUDE BUT NOT BE LIMITED TO TURBIDITY, PH, AND DUST.
7. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL REGULATIONS, INCLUDING THE FEDERAL DEPARTMENT OF LABOR, SAFETY, OCCUPATIONAL SAFETY, HEALTH ACT, U.S. ARMY CORPS OF ENGINEERS, STATE/LOCAL WETLANDS CONTROL, AND PERMITS.
8. DIMENSIONS AND DETAILS OF THE EXISTING CONSTRUCTION ARE FROM CONSTRUCTION DRAWINGS FURNISHED BY THE GOVERNMENT. ALL DIMENSIONS AND DETAILS OF THE EXISTING CONSTRUCTION SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE AFFECTED PART OF THE WORK.
9. EXISTING CONDITIONS ARE INTENDED TO PROVIDE GENERAL OVERVIEW OF STRUCTURES BUT DO NOT INCLUDE ALL APPURTENANCES AND CONDITIONS.
10. TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE CONTRACTING OFFICER AT THE CONTRACTORS EXPENSE. NOTIFY THE CONTRACTING OFFICER A MINIMUM OF 15 DAYS IN ADVANCE OF ANY OUTAGES.
11. METHODS OF DEMOLITION, CONSTRUCTION, AND ERECTION ARE THE CONTRACTOR'S RESPONSIBILITY UNLESS OTHERWISE SPECIFIED.
12. STORAGE, FUELING AND LUBRICATION OF EQUIPMENT AND MOTOR VEHICLES SHALL BE CONDUCTED IN A MANNER THAT AFFORDS THE MAXIMUM PROTECTION AGAINST SPILL AND EVAPORATION. FUEL, LUBRICANTS AND OIL SHALL BE MANAGED AND STORED IN ACCORDANCE WITH ALL FEDERAL, STATE, REGIONAL, AND LOCAL LAWS AND REGULATIONS. THERE SHALL BE NO STORAGE OF FUEL ON THE PROJECT SITE. FUEL MUST BE BROUGHT TO THE PROJECT SITE AS NEEDED. EQUIPMENT OPERATION, ACTIVITIES, OR PROCESSES PERFORMED BY THE CONTRACTOR SHALL BE IN ACCORDANCE WITH ALL FEDERAL AND STATE AIR EMISSION AND PERFORMANCE LAWS AND STANDARDS.
13. THE GOVERNMENT MAY CHARGE TO THE CONTRACTOR ANY ADDITIONAL COST OF REINSPECTION OR RETEST WHEN PRIOR REJECTION MAKES REINSPECTION OR RETEST NECESSARY.
14. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL PROVIDE CALCULATIONS, SKETCHES, PROCEDURES AND OTHER DOCUMENTS AS NECESSARY, STAMPED BY A PROFESSIONAL ENGINEER, DEMONSTRATING LAY-DOWN, EQUIPMENT AND CONSTRUCTION TECHNIQUES WILL NOT EXCEED THE CAPACITY OF THE STRUCTURE. THE INDUSTRIAL WHARF HAS AREAS OF RESTRICTED LOADING. THE LOAD RATING PLAN IS PROVIDED WITHIN THE PROJECT SPECIFICATIONS.
15. ENVIRONMENTAL CONTROLS SHALL CONFORM TO ALL STATE, LOCAL, AND FEDERAL REGULATIONS AS WELL AS ALL PERMITS OBTAINED BY THE GOVERNMENT. ENVIRONMENTAL CONTROLS SHALL INCLUDE BUT NOT BE LIMITED TO TURBIDITY, PH, AND DUST.

DEMOLITION NOTES:

1. PROVIDE CONTROL MEASURES AS REQUIRED BY ENVIRONMENTAL REGULATIONS AND AS REQUIRED TO PREVENT DEBRIS CONTAMINANTS (SOLID, LIQUID OR DISSOLVED) FROM ENTERING THE WATER. UNDERWATER INSPECTIONS MAY BE CONDUCTED BY THE CONTRACTING OFFICER TO ENSURE ALL DEMOLITION AND CONSTRUCTION DEBRIS HAS BEEN REMOVED FROM THE WATER.
2. ALL MATERIAL DEMOLISHED AND NOT REUSED OR SALVAGED TO THE GOVERNMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED DAILY FROM THE GOVERNMENT'S PROPERTY. REMOVED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS.
3. PROTECT EXISTING UTILITIES AND WORK WHICH ARE TO REMAIN IN PLACE, BE REUSED, OR REMAIN THE PROPERTY OF THE GOVERNMENT. ALL DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE GOVERNMENT.
4. VERIFY AND VALIDATE THAT ALL MATERIALS REMOVED FROM THE SITE ARE CONTAMINANT FREE. PRIOR TO DISPOSING OR RECYCLING OF ANY MATERIAL; APPROPRIATE REGULATORY TESTING SHALL CONFIRM THAT MATERIALS ARE FREE OF CONTAMINANTS. ENSURE THAT ALL SCRAP STEEL IS FREE OF ANY NATURALLY OCCURING RADIOACTIVE MATERIAL (NORM), OR LOW LEVEL RADIOACTIVE WASTE (LLRW) READINGS.
5. PREVENT THE SPREAD OF DUST AND DEBRIS AND AVOID THE CREATION OF A NUISANCE OR HAZARD IN THE SURROUNDING AREA. DO NOT USE WATER IF IT RESULTS IN HAZARDOUS OR OBJECTIONABLE CONDITIONS SUCH AS, BUT NOT LIMITED TO, FLOODING OR POLLUTION.
6. PRIOR TO REINSTALLATION, SALVAGED MATERIAL SHALL BE STORED IN CONTRACTOR PROVIDED CONNEX BOXES OR STORED IN AN ON-SITE GOVERNMENT APPROVED LOCATION.
7. REMOVE MARINE GROWTH AND OTHER BOND INHIBITING SUBSTANCES FROM ALL SURFACES IN CONTACT WITH REPAIR WORK.
8. THE TIMBER FENDER PILES SHALL BE ENTIRELY PULLED OUT OF THE GROUND. CUTTING OF THE PILES AT THE MUDLINE SHALL NOT BE PERMITTED.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "STEEL CONSTRUCTION MANUAL".
2. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) D1.1 AND D3.6M. ELECTRODES SHALL BE E70XX LOW HYDROGEN IN ACCORDANCE WITH AWS SPECIFICATIONS.
3. STRUCTURAL STEEL SHAPES SHALL BE ASTM A572, GRADE 50 OR ASTM A992.
4. WHERE STEEL COATINGS ARE REMOVED TO APPLY WELDS, THE COATING SHALL BE RE-APPLIED TO THE STEEL INCLUDING THE WELD AREA.
5. SUBMIT DETAILED SHOP DRAWINGS TO CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO THE FABRICATION OR DELIVERY OF ANY STEEL.

TIMBER NOTES:

1. TIMBER SHALL BE DOUGLAS FIR LARCH, AND SHALL BE AMMONIACAL COPPER ZINC ARSENATE (ACZA) PRESSURE TREATED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS TO 2.5 PCF.
2. ALL TIMBER CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL DESIGN STANDARD (NDS) PUBLISHED BY THE AMERICAN WOOD COUNCIL (AWC).
3. ALL BOLTED CONNECTIONS SHALL BE MADE WITH ASTM A 307, GRADE A BOLTS. TIMBER CONNECTIONS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 153.
4. FIELD TREAT ALL CUT AND DRILLED TIMBER SURFACES WITH TWO COATS OF PRESERVATIVE CONTAINING COPPER NAPTHANATE SOLUTION (MIN 2% METALLIC SOLUTION) PER AMERICAN WOOD PROTECTION ASSOCIATION (AWPA). ALLOW SUFFICIENT TIME AFTER FIRST TREATMENT FOR PRESERVATIVE TO SOAK IN (DRY APPEARANCE) BEFORE SECOND TREATMENT IS APPLIED. WOOD PRESERVATIVES ARE RESTRICTED-USE PESTICIDES AND SHALL BE APPLIED ACCORDING TO APPLICABLE STANDARDS. FIELD TREATMENT SHALL NOT BE APPLIED OVER WATER.
5. TIMBER FENDER PILES
   a) SHALL HAVE A MINIMUM TIP CIRCUMFERENCE OF 22".
   b) SHALL BE DOUGLAS FIR LARCH.
   c) SHALL BE ACZA PRESSURE TREATED TO 2.5 POUNDS PER CUBIC FOOT RETENTION. WATERBORNE PRESERVATIVES SHALL BE TESTED FOR CONFORMANCE TO AWPA A9. THE NET RETENTION AND THE PENETRATION OF PRESERVATIVES IN PILES SHALL BE DETERMINED AS SPECIFIED IN AWPA M2.
   d) SHALL BE DRIVEN TO 20'-0" EMBEDMENT.
   e) SPLICING OF PILES WILL NOT BE PERMITTED.
   f) CONTRACTOR TO PROVIDE PROTECTION TO TIP AND BUTT TO PREVENT PILE DAMAGE DURING DRIVING. SPUDDING WILL BE ALLOWED.

EPOXY GROUT:

1. EPOXY GROUT SHALL BE A 100% SOLIDS, LOW-VISCOSITY, HIGH-STRENGTH EPOXY RESIN ADHESIVE. GROUT SHALL BE EXTENDED WITH ASTM C 404 SAND. MIXING, HANDLING, AND PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 10,000 PSI (ASTM D 695) AND A 14-DAY MOIST CURE BOND STRENGTH OF 1,200 PSI (ASTM C 882).

NON-SHRINK CEMENTITIOUS GROUT:

1. CEMENTITIOUS GROUT SHALL BE A HIGH-STRENGTH, NON-SHRINK GROUT THAT MEETS REQUIREMENTS OF ASTM C 1107 AND BE INTENDED FOR USE IN THE MARINE ENVIRONMENT.
2. GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 7,000 PSI (ASTM C 109)

TROWEL-GRADE MORTAR:

1. TROWEL GRADE EPOXY SHALL BE A 100% SOLIDS, MOISTURE INSENSITIVE, NON-SAG EPOXY ADHESIVE. IT SHALL BE FORMULATED FOR REPAIRS OF VERTICAL OR OVERHEAD SURFACES. IT SHALL MEET THE REQUIREMENTS OF ASTM C 881 TO ASTM C 891, TYPES 1, II, AND V, GRADE 3, CLASS "B" AND "C".
2. SHALL HAVE A MINIMUM TENSILE STRENGTH OF 6,000 PSI; A COMPRESSIVE STRENGTH OF 9,000 PSI; AND BOND STRENGTH OF 1,500 PSI.

MOORING HARDWARE:

1. MOORING FITTINGS SHALL BE 50-TON CAPACITY, SINGLE BITT AS INDICATED. BOLLARD MATERIAL SHALL BE STRESS-RELIEVED DUCTILE IRON CONFORMING TO ASTM A 536, GRADE 65-45. BOLLARDS SHALL HAVE A MINIMUM WORKING CAPACITY OF 50 TONS IN THE DIRECTION OF 0 DEGREES TO 30 DEGREES RELATIVE TO HORIZONTAL AND 0 DEGREES TO 180 DEGREES RELATIVE TO THE FACE OF THE PIER.
2. ANCHOR HARDWARE SHALL BE 1-3/8" MINIMUM DIAMETER BOLTS, CONFORMING TO ASTM F 1554, GRADE 105. SIZE AND QUANTITY OF BOLTS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S DESIGN. BOLLARD HARDWARE SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 153. CONTRACTOR SHALL TEST A MINIMUM OF ONE HARDWARE ASSEMBLY TO CONFIRM CONFORMANCE WITH THE REQUIRED MATERIAL PROPERTIES AND SUBMIT THE RESULTS OF THIS TESTING.
3. BOLLARDS SHALL BE FINISHED WITH 3-COAT PAINT SYSTEM. PRIMER SHALL BE A MINIMUM OF 2 MIL THICKNESS, APPLIED AT THE FACTORY. INTERMEDIATE AND FINISH COAT SHALL BE APPLIED AT JOBSITE TO MINIMUM THICKNESS OF 3 MIL. TOP COAT SHALL BE PAINTED SAFETY YELLOW IN COLOR.

PILE REPAIR NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL PILE REPAIR LOCATIONS AND DIMENSIONS PRIOR TO ORDERING MATERIAL.
2. UPON REMOVAL OF PVC PILE WRAP, CONTRACTOR SHALL CLEAN PILE TO REMOVE LOOSE MARINE GROWTH, SILT, OR DETERIORATED TIMBER TO EXPOSE SOUND TIMBER MATERIAL. CONTRACTOR SHALL INSPECT THE BASE TIMBER MATERIAL AND MEASURE THE LOCATION OF MAXIMUM SECTION LOSS. PILES WITH LOSS OF CROSS SECTION EQUAL TO OR GREATER THAN 30% SHALL RECEIVE A TYPE 1-LONG POST REPAIR. PILES WITH LESS THAN 30% LOSS OF CROSS SECTION SHALL RECEIVE A TYPE 2-EPOXY JACKET REPAIR. THE INSPECTION SHALL BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL-ENGINEER LICENSED IN THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL SUBMIT FOR REVIEW A SUMMARY REPORT OF THE INSPECTION FINDINGS.
3. REPAIR QUANTITIES SHALL BE DETERMINED BASED ON THE AWARDED BID OPTIONS AT THE DISCRETION OF THE GOVERNMENT.
4. CLEAN PILE SURFACES WITHIN LIMITS OF REPAIR WORK OF ALL MARINE GROWTH AND OTHER DELETERIOUS MATERIALS WITH HIGH PRESSURE WATER.
5. EXCAVATE INTO THE HARBOR BOTTOM FOR JACKET INSTALLATION AS INDICATED. EXCAVATED MATERIAL SHALL BE REUSED TO BACKFILL EXCAVATION UPON COMPLETION OF REPAIR.
6. STAY-IN-PLACE JACKET SHALL BE WATER TIGHT AND OF SUFFICIENT STRENGTH TO PROVIDE ADEQUATE SUPPORT FOR THE FILL MATERIAL DURING AND AFTER PLACEMENT. STAY-IN-PLACE JACKET SHALL BE PERMANENTLY ATTACHED TO THE COMPLETED WORK.
7. STAY-IN-PLACE JACKET SHALL BE CONSTRUCTED OF GLASS FIBER REINFORCED POLYMER AND MEET THE FOLLOWING MATERIAL PROPERTIES:

TENSILE STRENGTH:	14,500 PSI (ASTM D 638)
FLEXURAL MODULUS OF ELASTICITY:	700,000 PSI (ASTM D 790)
IZOD IMPACT:	20 FT-LBS/FT/IN (ASTM D 256)
BARCOL HARDNESS:	35 (ASTM D 785)
WATER ABSOPRTION:	1% MAX

8. STAY-IN-PLACE JACKET SHALL BE TRANSLUCENT, ULTRAVIOLET RESISTANT, INERT, AND CORROSION FREE WITH INTERLOCKING JOINTS WITH MINIMUM WALL THICKNESS OF 1/8".

JACKET JOINT OPTIONS (C4 / S-004)

9. THE INTERIOR OF THE JACKET SHALL HAVE A ROUGH, PATTERNED SURFACE TO FACILITATE PERMANENT ADHESION TO THE FILL MATERIAL.
10. PLACE TEMPORARY LATERAL FORMWORK, EXTERNAL BRACING, BANDING OR CLAMPS AS REQUIRED AROUND THE JACKET TO KEEP IT ROUND, AND IN PLACE (NOT SHOWN IN DRAWINGS) WITH SUFFICIENT AND CONSISTENT CLEAR COVER. JACKET MANUFACTURER SHALL INSPECT AND APPROVE FORMWORK ON INITIAL JACKET INSTALLATION PRIOR TO GROUT PUMPING.
11. REMOVE ALL TEMPORARY FORMWORK, FRICTION TYPE COLLARS, EXTERNAL BRACING AND BANDING WHEN THE MATERIAL HAS REACHED ITS FINAL SET (APPROXIMATELY 72 HOURS), AND CLEAN THE JACKET OF ANY SPILLED FILLER MATERIAL.
12. FILL MATERIAL SHALL BE PUMPED INTO FORMS STARTING AT THE BOTTOM OF THE REPAIR. PUMP PORTS SHALL BE PLACED AT A SUFFICIENT VERTICAL DISTANCE APART TO ENSURE MATERIAL IS EVENLY DISTRIBUTED WITHIN THE FORM AND NO MORE THAN 10 FEET ON-CENTER. ADJACENT PUMP PORTS SHALL BE ROTATED 180 DEGREES ABOUT THE CENTER OF THE REPAIR CROSS SECTION. GROUT SHALL BE PUMPED IN ONE CONTINUOUS OPERATION. THE BOTTOM OF THE REPAIR FORMWORK SHALL BE SUFFICIENT TO PREVENT BLOW OUTS. AT A MINIMUM, REPAIR CLOSURE DETAIL SHALL BE AS SHOWN.

REPAIR BOTTOM CLOSURE DETAIL (C4 / S-005)

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ISSUE

MARK	DATE	DESCRIPTION

A/E PROJECT NO:	6012
CAD FILE NAME:	6012 CEU LB DRAWINGS
DESIGNED BY:	MLT
DRAWN BY:	KMV
EDITED BY:	MLT
CHECKED BY:	NJE
	AS SHOWN

SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH
GENERAL
PROJECT NOTES

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:
TECHNICAL DIRECTOR — DATE

PROJECT NUMBER	DRAWING NUMBER
PROJECT #	DWG #
DISCIPLINE/SHT NO	
G-002	SHEET 2 OF 12

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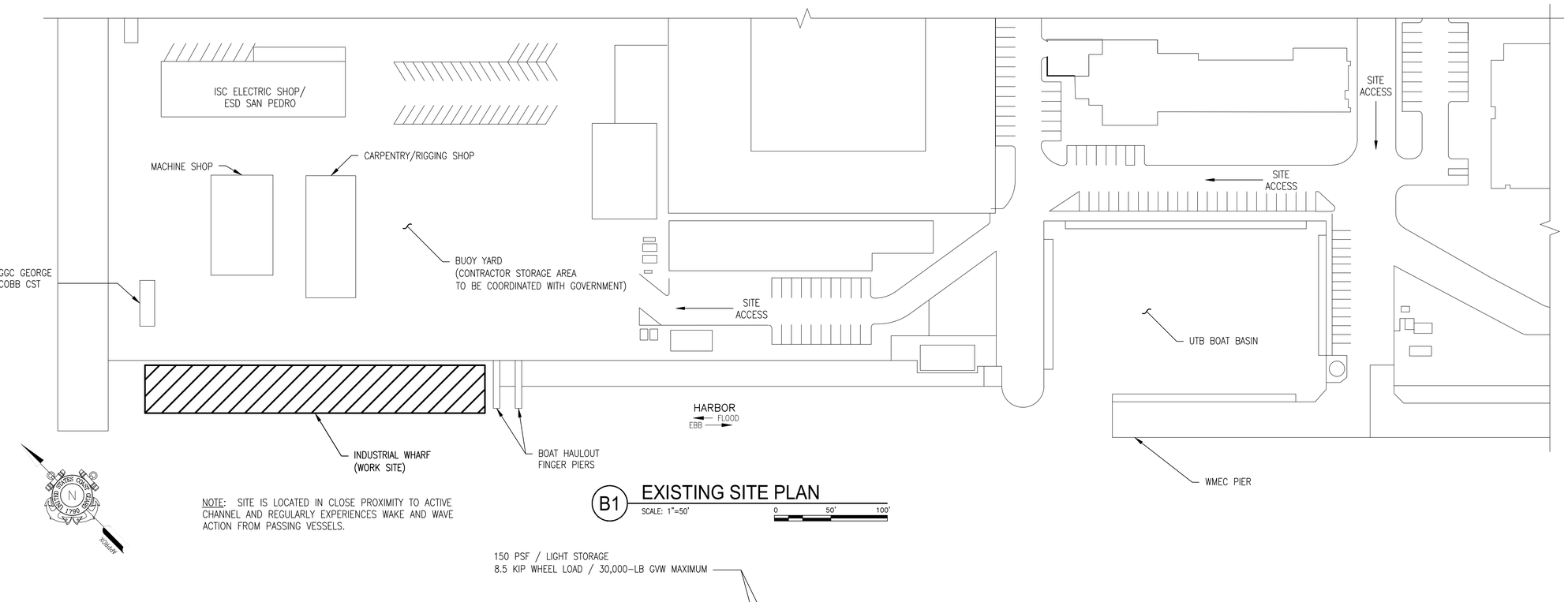

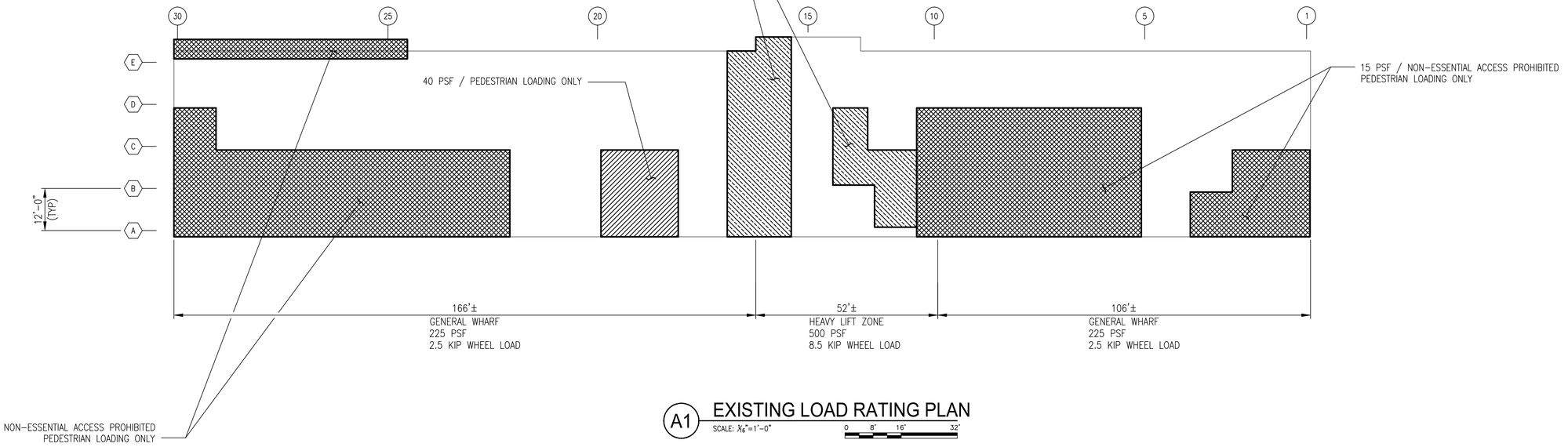

A1 EXISTING LOAD RATING PLAN
SCALE: 1/16"=1'-0"
0 8' 16' 32'

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SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH
GENERAL

EXISTING SITE PLAN

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:
TECHNICAL DIRECTOR — DATE

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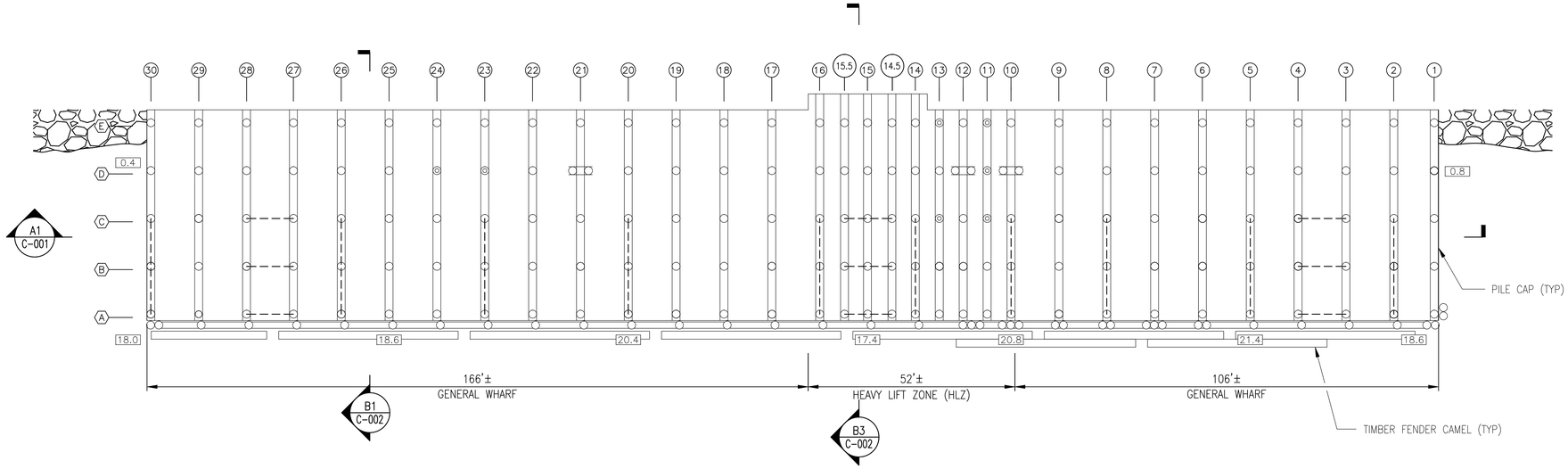
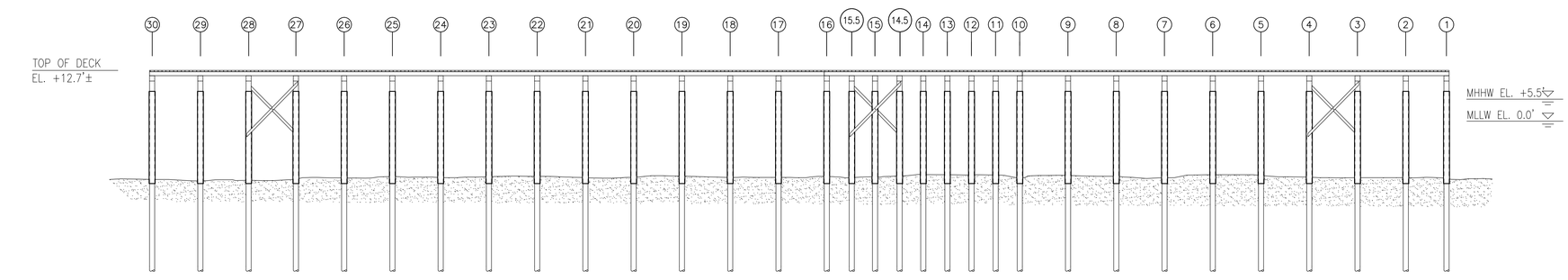


B1 EXISTING WHARF SUBSTRUCTURE PLAN

SCALE: 1/16"=1'-0" 0 8' 16' 32'



A1 EXISTING WHARF SECTION

SCALE: 1/16"=1'-0" 0 8' 16' 32'

LEGEND:

(2)	PILE BENT DESIGNATION
⟨D⟩	PILE ROW DESIGNATION
21.6	SOUNDINGS IN FEET REFERENCED TO MLLW
○	SUPPORT/FENDER PILE, DIAMETER VARIES, TYP
◎	SUPPORT PILE WITH CONCRETE ENCASEMENT
– – –	PILE-TO-PILE DIAGONAL BRACING (C12x25)

NOTE:

1. DECKING AND UTILITIES NOT SHOWN.
2. SOUNDINGS ARE BASED ON LEAD LINE MEASUREMENTS AND CAN ONLY BE CONSIDERED INDICATIVE OF GENERAL CONDITIONS.

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REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH GENERAL

EXISTING WHARF PLAN

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:
TECHNICAL DIRECTOR DATE

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C-001	SHEET 4 OF 12

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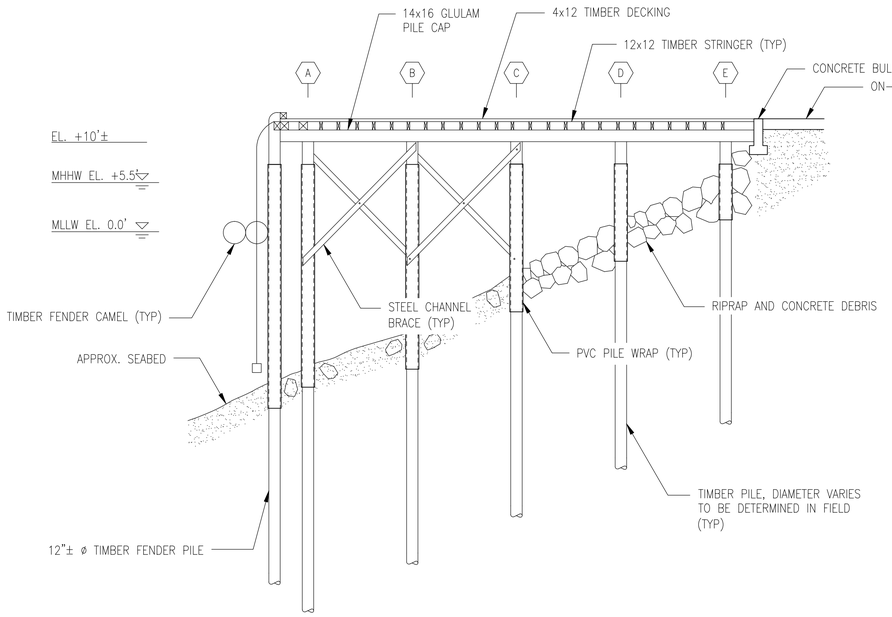
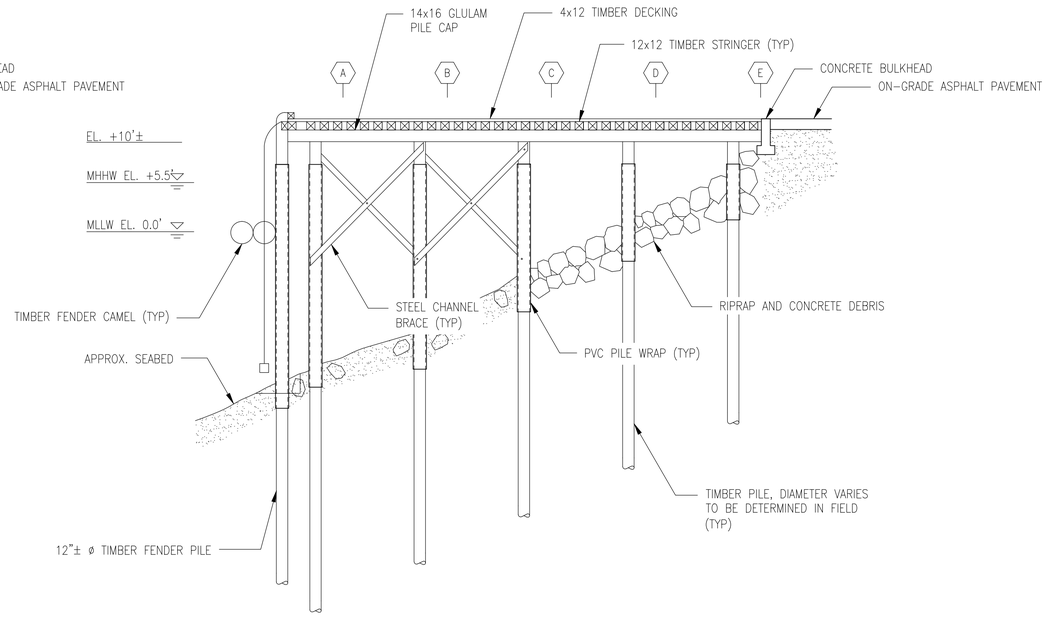


B1 INDUSTRIAL WHARF SECTION
SCALE: ⅛"=1'-0" 0 4' 8' 16'



B3 HEAVY LIFT ZONE SECTION
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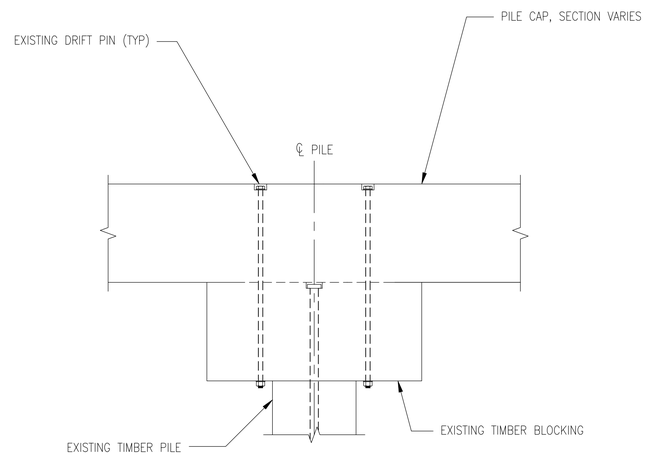

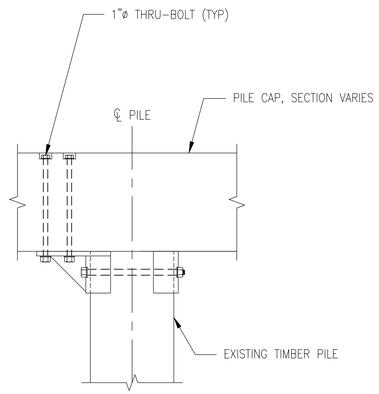

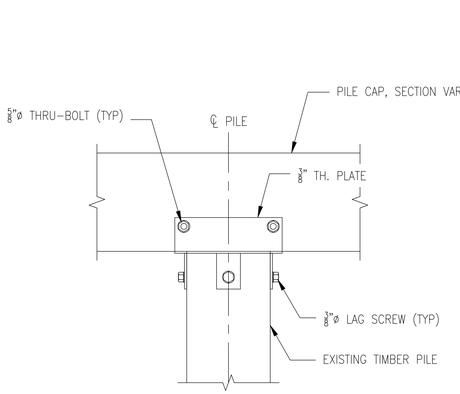

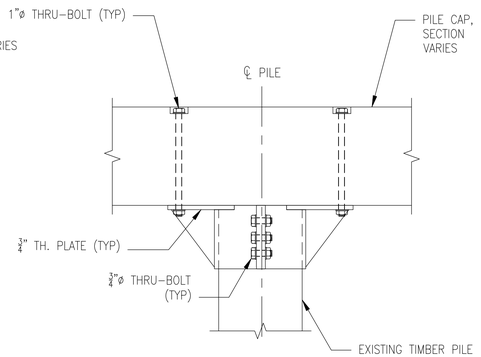

NOTE: EXISTING PILE CAP CONNECTIONS VARY. TYPICAL CONNECTION DETAILS ARE PROVIDED FOR SCHEMATIC PURPOSES ONLY. SIZES MAY VARY FROM WHAT IS DEPICTED.

A1 EXISTING PILE CAP CONNECTIONS
SCALE: 1"=1'-0" 0 1/2' 1' 2'

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SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH
GENERAL

EXISTING WHARF SECTIONS

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APPROVED BY:
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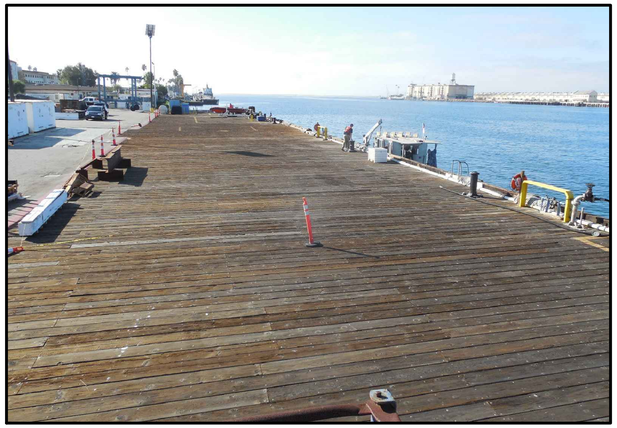
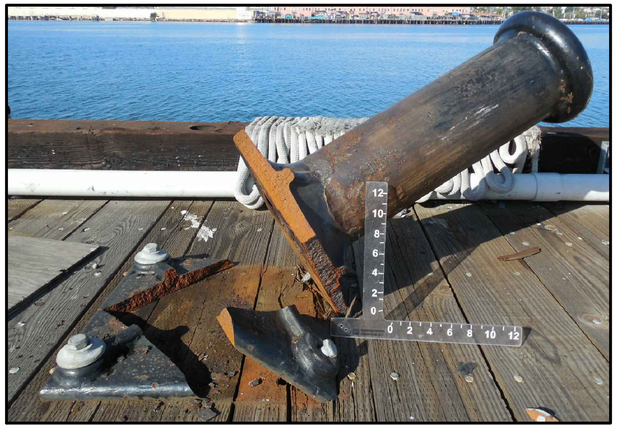
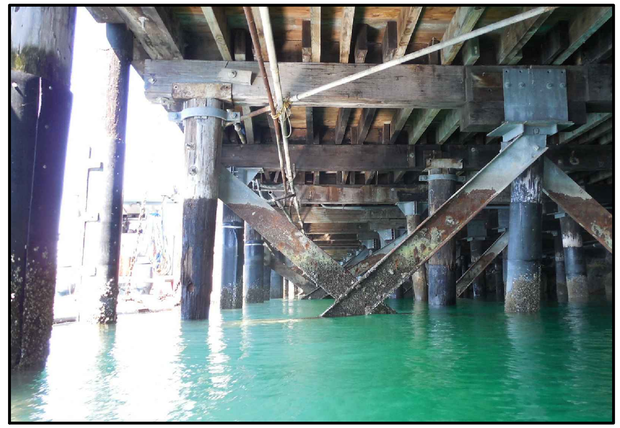


INDUSTRIAL WHARF OVERALL

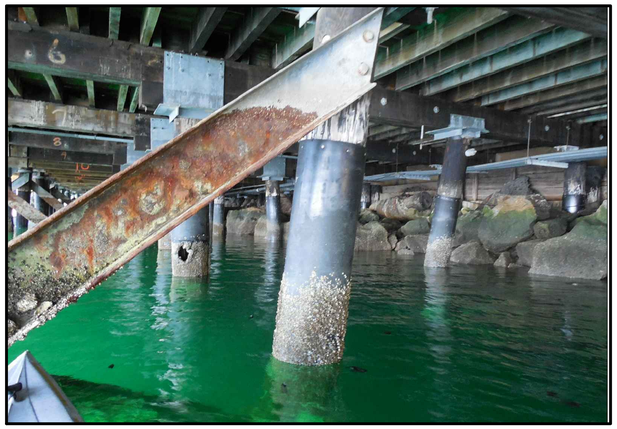


FAILED BOLLARD



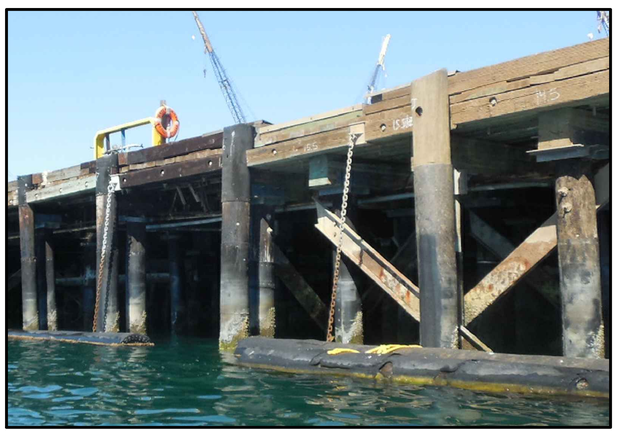
BENT CONFIGURATION (LOOKING NORTH)

OVERVIEW - VARIOUS PILE CAP CONNECTIONS



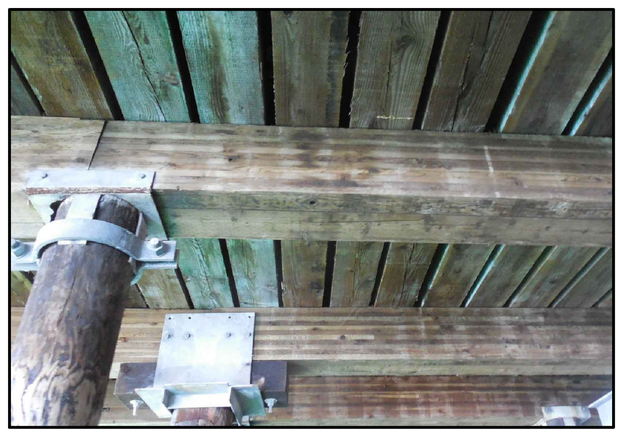
CROSS BRACING CONNECTION

BRACING CONFIGURATION



TYPICAL FENDER PILE CONFIGURATION

TYPICAL PILE CAP AT WHARF



GLULAM PILE CAP AT HEAVY LIFT ZONE

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MARK	DATE	DESCRIPTION

A/E PROJECT NO:	6012
CAD FILE NAME:	6012 CEU LB DRAWINGS
DESIGNED BY:	MLT
DRAWN BY:	KMV
EDITED BY:	MLT
CHECKED BY:	NJE

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SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH GENERAL

SITE PHOTOGRAPHS

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:

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PROJECT NUMBER	DRAWING NUMBER
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C-003	SHEET 6 OF 12

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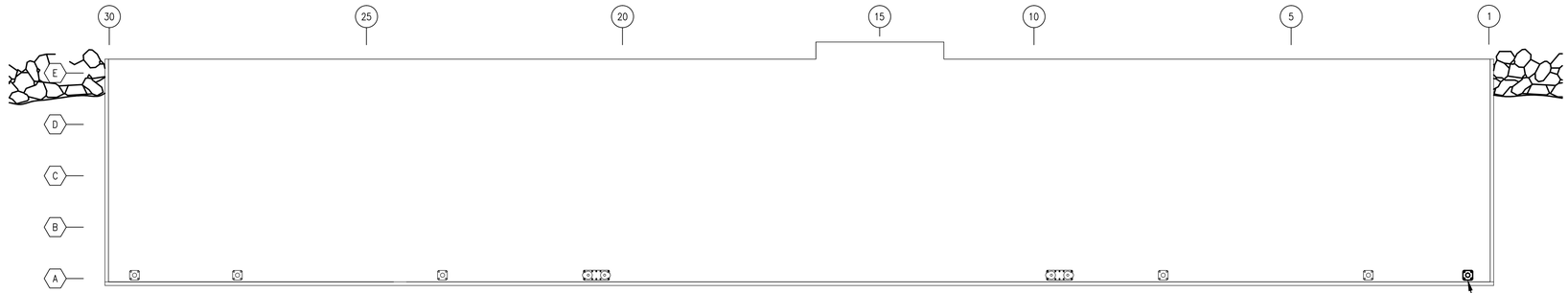
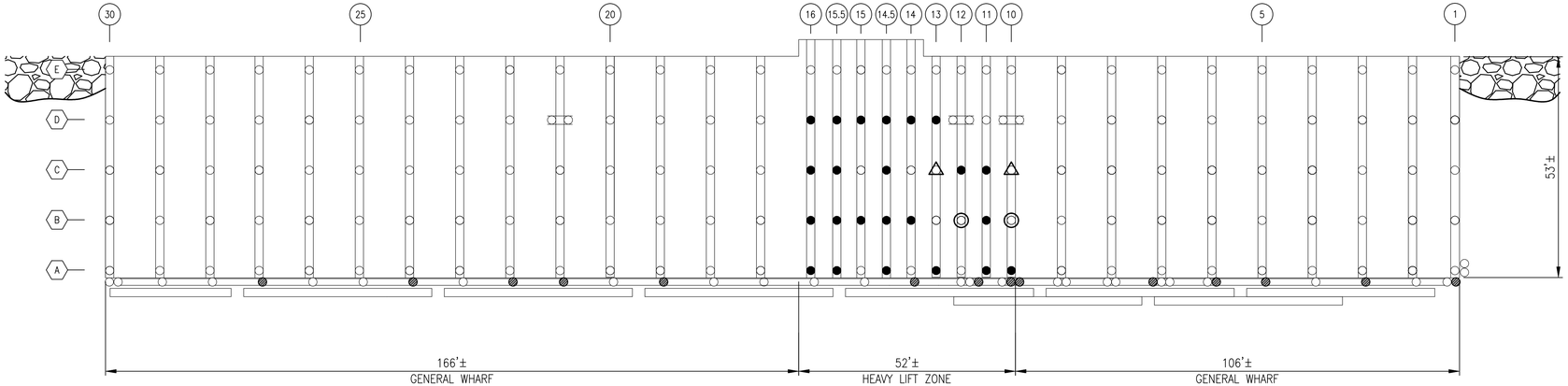


BASE BID: FURNISH AND INSTALL 50-TON BOLLARD

C1 PHASE 1-ABOVE DECK REPAIR PLAN

SCALE: 1/16"=1'-0"

0 8' 16' 32'



A1 PHASE 1-UNDER DECK REPAIR PLAN

SCALE: 1/16"=1'-0"

0 8' 16' 32'

PHASE 1-SUMMARY OF WORK

BASE BID:

1. REMOVE PVC PILE WRAPS IN HEAVY LIFT ZONE (23 LOCATIONS)
2. CLEAN AND INSPECT PILES UPON WRAP REMOVAL (23 LOCATIONS)
3. INSTALL TYPE 1-LONG POST REPAIR (2 LOCATIONS)
4. INSTALL TYPE 2-EPOXY JACKET REPAIR (2 LOCATIONS)
5. REMOVE EXISTING FAILED MOORING BOLLARD. FURNISH AND INSTALL REPLACEMENT BOLLARD (1 LOCATION)

BID OPTIONS: (PROVIDE UNIT COST)

1. INSTALL TYPE 1-LONG POST REPAIRS (ASSUMED 18 LOCATIONS*)
2. INSTALL TYPE 2-EPOXY JACKET REPAIRS (ASSUMED 5 LOCATIONS*)
3. REMOVE EXISTING TIMBER FENDER PILE. FURNISH AND INSTALL NEW FENDER PILE (14 LOCATIONS)

* THE QUANTITY AND LOCATION OF TYPE 1 AND TYPE 2 REPAIRS SHALL BE DETERMINED BASED ON REMAINING PILE CROSS SECTION AFTER REMOVAL OF PILE WRAP AND PILE CLEANING.

LEGEND:

- (1) BENT DESIGNATION
- (A) ROW DESIGNATION
- EXISTING TIMBER PILE WITH PVC WRAP
- EXISTING BOLLARD
- EXISTING DOUBLE BIT
- BASE BID: REMOVE PVC PILE WRAP. BID OPTION: INSTALL TYPE 1 OR TYPE 2 REPAIR AS REQUIRED
- BASE BID: INSTALL TYPE 1-LONG POST REPAIR
- BASE BID: INSTALL TYPE 2-EPOXY JACKET REPAIR
- BID OPTION: REMOVE AND REPLACE TIMBER FENDER PILE

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A/E PROJECT NO:	6012
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REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH STRUCTURAL

PHASE 1-REPAIR PLAN

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:
TECHNICAL DIRECTOR — DATE

PROJECT NUMBER	DRAWING NUMBER
PROJECT #	DWG #
DISCIPLINE/SHT NO	
S-001	SHEET 7 OF 12

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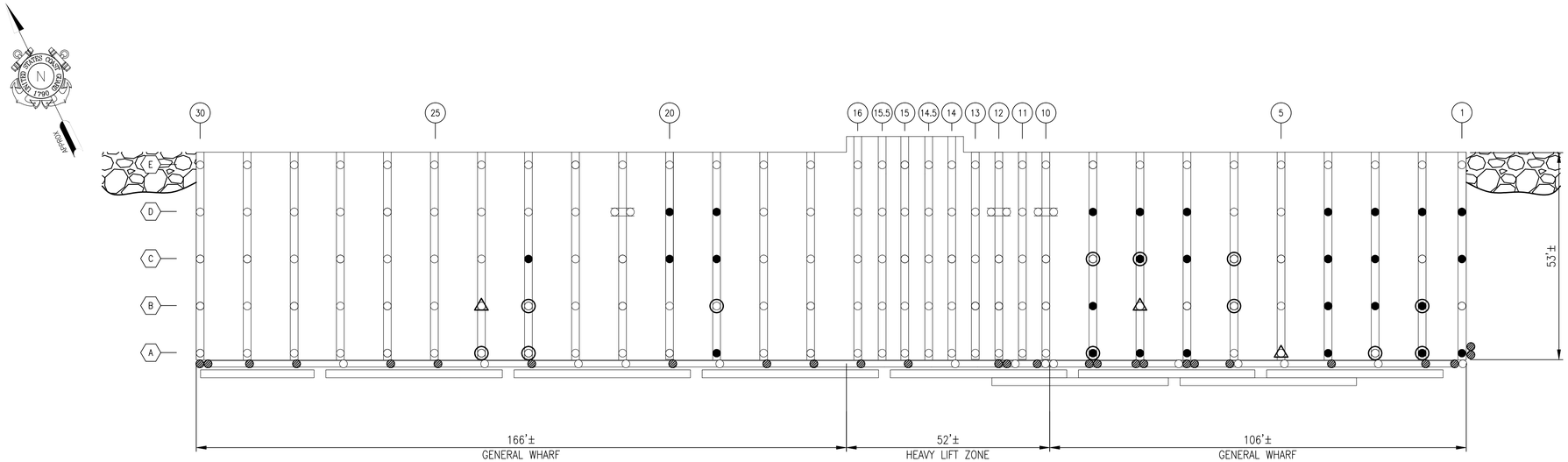

B1 PHASE 2-UNDER DECK REPAIR PLAN

SCALE: 3/16"=1'-0"

0 8' 16' 32'

PHASE 2-SUMMARY OF WORK

BASE BID:

1. REMOVE PVC PILE WRAPS (28 LOCATIONS)
2. CLEAN AND INSPECT PILES UPON WRAP REMOVAL (28 LOCATIONS)
3. INSTALL TYPE 1-LONG POST REPAIR (12 LOCATIONS)
4. INSTALL TYPE 2-EPOXY JACKET REPAIR (3 LOCATIONS)

BID OPTIONS: (PROVIDE UNIT COST)

1. INSTALL TYPE 1-LONG POST REPAIRS (ASSUMED 18 LOCATIONS*)
2. INSTALL TYPE 2-EPOXY JACKET REPAIRS (ASSUMED 6 LOCATIONS*)
3. REMOVE EXISTING TIMBER FENDER PILE. FURNISH AND INSTALL REPLACE FENDER PILE (27 LOCATIONS)

* THE QUANTITY AND LOCATION OF TYPE 1 AND TYPE 2 REPAIRS SHALL BE DETERMINED BASED ON REMAINING PILE CROSS SECTION AFTER REMOVAL OF PILE WRAP AND PILE CLEANING.

LEGEND:

- (1) — BENT DESIGNATION
- (A) — ROW DESIGNATION
- ○ EXISTING TIMBER PILE WITH PVC WRAP
- ● BASE BID: REMOVE PVC PILE WRAP. BID OPTION: INSTALL TYPE 1 OR TYPE 2 REPAIR AS REQUIRED
- ◎ BASE BID: INSTALL TYPE 1-LONG POST REPAIR
- △ BASE BID: INSTALL TYPE 2-EPOXY JACKET REPAIR
- ⊘ BID OPTION: REMOVE AND REPLACE TIMBER FENDER PILE

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A/E PROJECT NO:	6012
CAD FILE NAME:	6012 CEU LB DRAWINGS
DESIGNED BY:	MLT
DRAWN BY:	KMV
EDITED BY:	MLT
CHECKED BY:	NJE

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SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH STRUCTURAL

PHASE 2-REPAIR PLAN

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:

TECHNICAL DIRECTOR DATE

PROJECT NUMBER	DRAWING NUMBER
PROJECT #	DWG #
DISCIPLINE/SHT NO	
S-002	SHEET 8 OF 12

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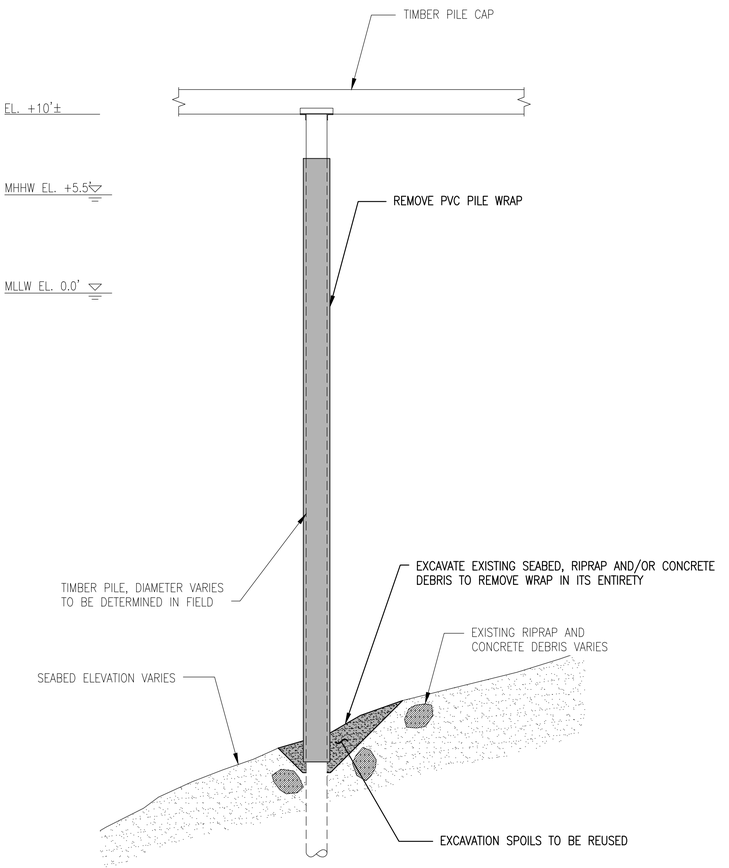
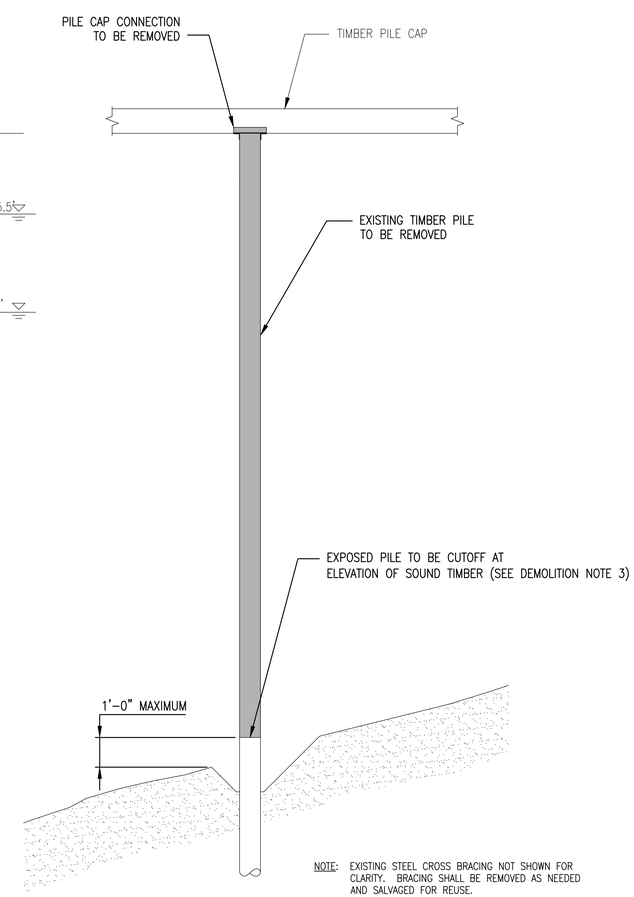


B1 PVC WRAP REMOVAL
SCALE: ¼"=1'-0" 0 2' 4' 8'



NOTE: EXISTING STEEL CROSS BRACING NOT SHOWN FOR CLARITY. BRACING SHALL BE REMOVED AS NEEDED AND SALVAGED FOR REUSE.

B3 TIMBER PILE REMOVAL
SCALE: ¼"=1'-0" 0 2' 4' 8'

DEMOLITION NOTES:

1. FOR REMOVAL PLAN, SEE PHASE 1 AND PHASE 2 REPAIR PLAN ON SHEET S-001 AND S-002, RESPECTIVELY.
2. EXISTING PVC PILE WRAPS SHALL BE REMOVED IN THEIR ENTIRETY TO EXPOSE THE BASE TIMBER PILE. PILE WRAPS ARE CONTINUOUSLY NAILED TO EXISTING PILE AND MEASURE BETWEEN 30 MIL AND 150 MIL IN THICKNESS.
3. UPON REMOVAL OF WRAP, PILES SHOULD THEN BE CLEANED TO REMOVE ANY BUILT UP SEDIMENT OR MARINE GROWTH. CONTRACTOR SHALL MEASURE AND DOCUMENT MINIMUM REMAINING CROSS SECTION ON EACH EXPOSED PILE. PILES WITH 30% OR GREATER LOSS OF CROSS SECTION SHALL BE REPAIRED WITH A TYPE-1 LONG POST REPAIR. PILES WITH LESS THAN 30% LOSS OF CROSS SECTION SHALL BE REPAIRED WITH A TYPE-2 EPOXY REPAIR IF BID OPTION IS AWARDED.
4. IF PILE MEETS THE REQUIREMENTS FOR A TYPE-1 LONG POST REPAIR, THE PILE SHOULD BE CUT AT THE DEEPER OF: ONE (1) FOOT ABOVE THE ADJACENT SEABED OR AN ELEVATION OF SOUND TIMBER, DEFINED AS HAVING LESS THAN 30% LOSS OF CROSS SECTION

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SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH
DEMOLITION
WHARF REMOVALS

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:
TECHNICAL DIRECTOR DATE

PROJECT NUMBER	DRAWING NUMBER
PROJECT #	DWG #
DISCIPLINE/SHT NO	
S-003	SHEET 9 OF 12

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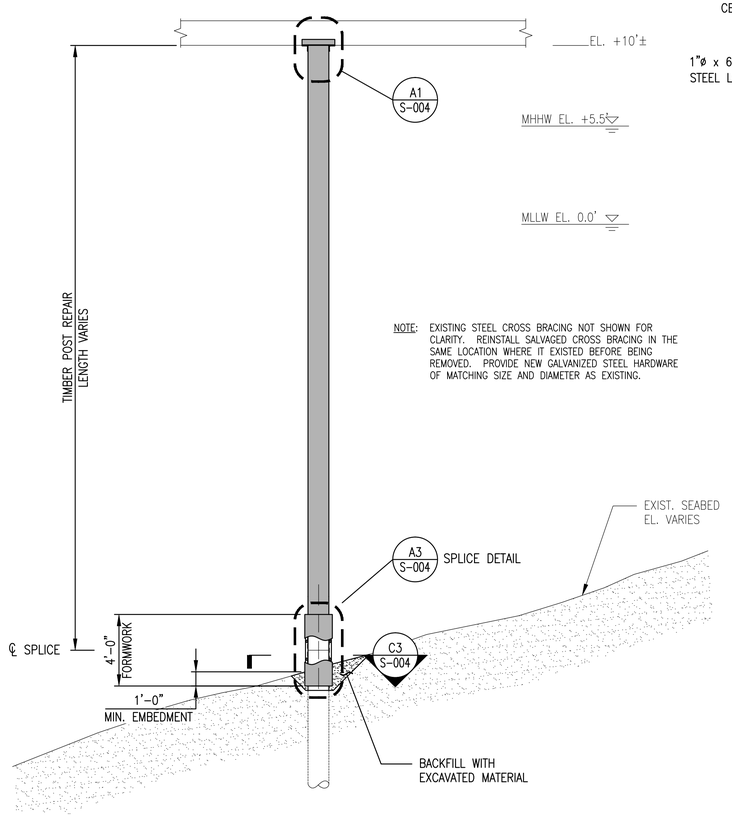
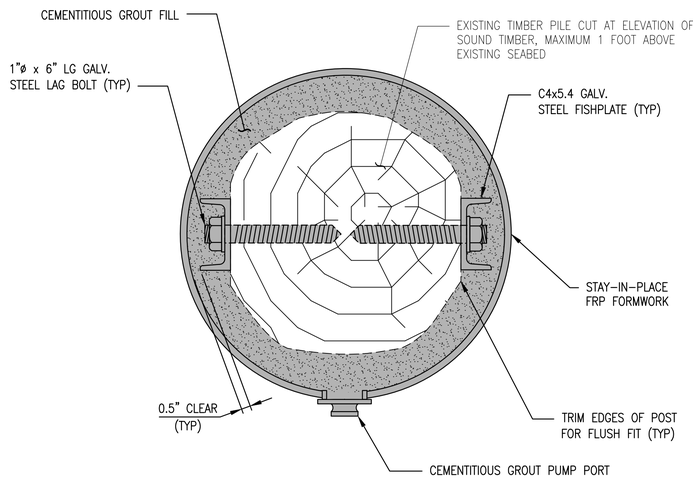
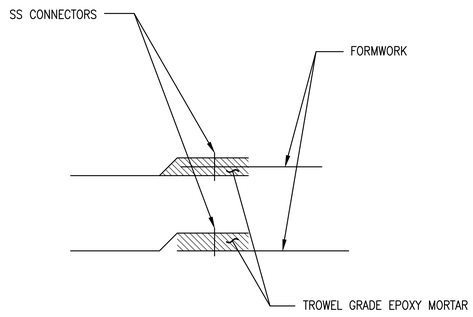


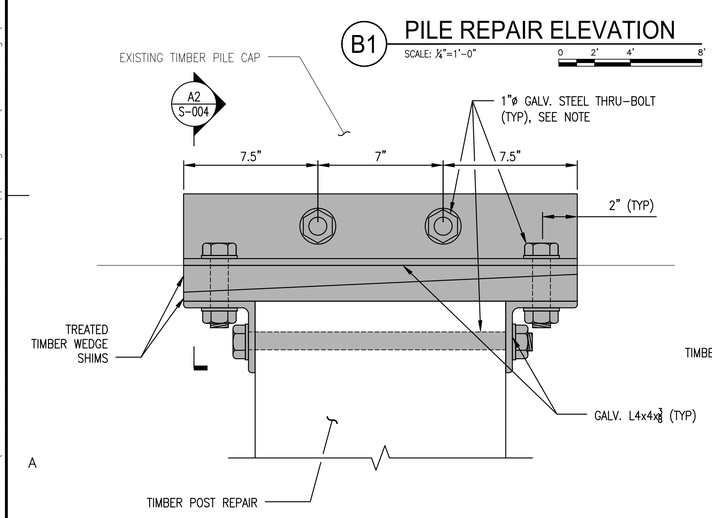
B1 PILE REPAIR ELEVATION
SCALE: ¼"=1'-0"



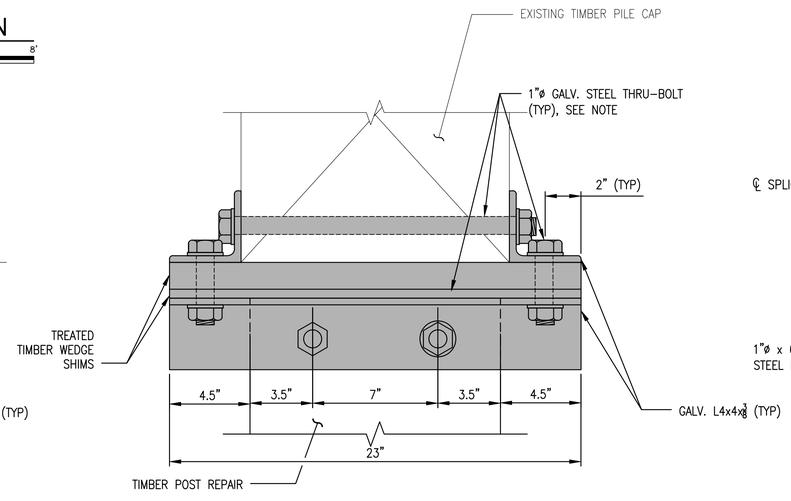
C3 PILE REPAIR SECTION
SCALE: 3"=1'-0"



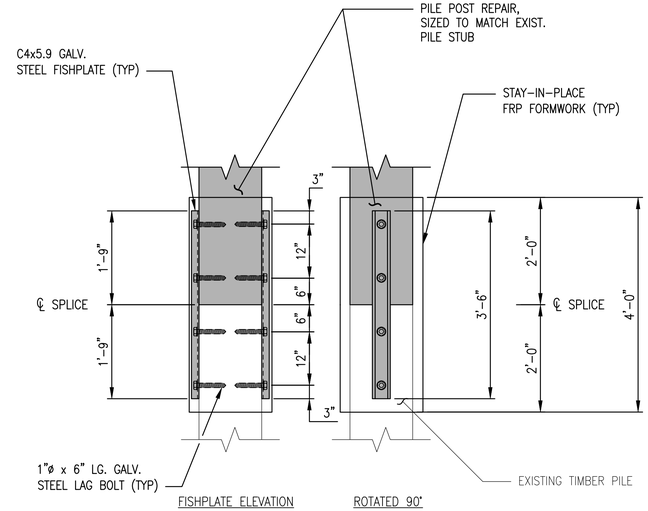
C4 JACKET JOINT OPTIONS
N.T.S.



A1 PILE CAP CONNECTION DETAIL
SCALE: 3"=1'-0"



A2 PILE CAP CONNECTION SECTION
SCALE: 3"=1'-0"



NOTES:

1. LAG BOLT LOCATIONS ARE MIRRORED ABOUT THE CENTERLINE OF THE REPAIR SPLICE.
2. PROVIDE CLOSURE, STAND-OFF, AND SUPPORT FOR FRP FORMWORK AS REQUIRED TO CONTAIN GROUT AND MAINTAIN UNIFORM CLEAR COVER.

A3 FISHPLATE DETAIL
SCALE: ¾"=1'-0"

NOTE:

DRILL NEW HOLES IN THE EXISTING TIMBER PILE CAP FOR THE HARDWARE. PLUG BOLT HOLES LEFT AFTER REMOVAL OF EXISTING HARDWARE WITH TIMBER DOWELS. TIMBER DOWELS SHALL FIT SNUG IN THE HOLE AND SHALL BE CUT FLUSH WITH THE FACE OF THE TIMBER PILE CAP.

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SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH STRUCTURAL

TYPE 1-LONG POST REPAIR

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:
TECHNICAL DIRECTOR — DATE

PROJECT NUMBER	DRAWING NUMBER
PROJECT #	DWG #
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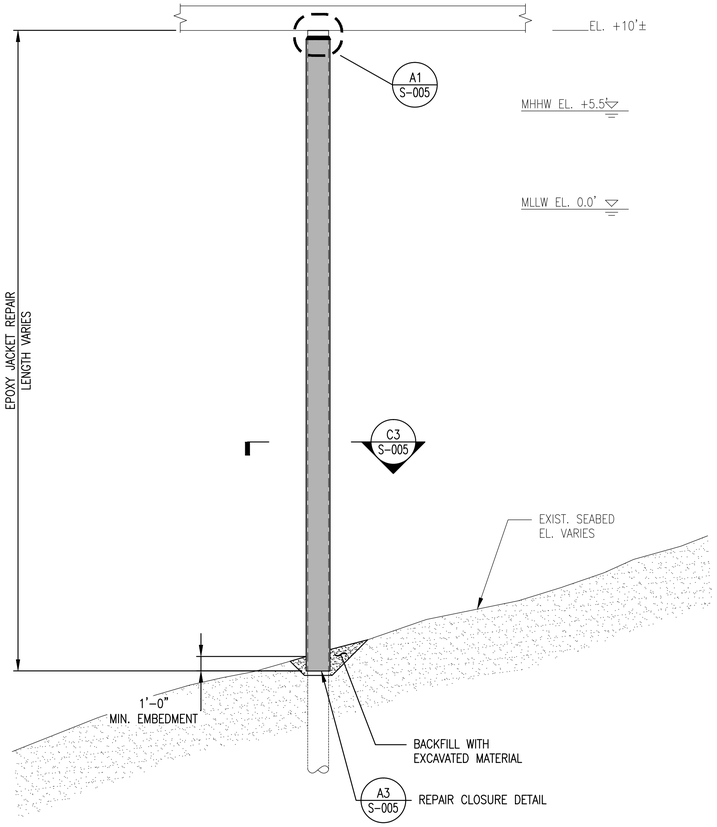
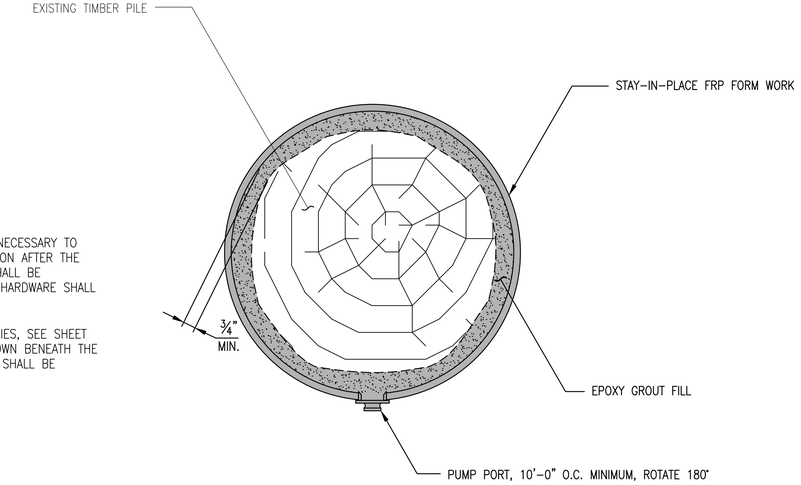


B1 PILE REPAIR ELEVATION
SCALE: 3/8"=1'-0" 0 4' 8' 16'

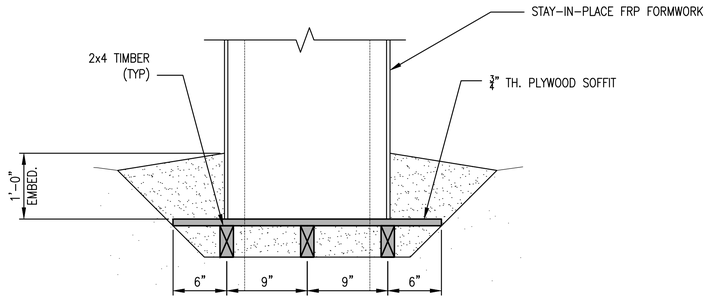
NOTES:

1. CROSS-BRACING IS NOT SHOWN FOR CLARITY. REMOVE AS NECESSARY TO INSTALL THE NEW WORK AND REINSTALL AT THE SAME LOCATION AFTER THE NEW WORK HAS BEEN INSTALLED. GALVANIZED HARDWARE SHALL BE INSTALLED, WITH DIAMETER TO MATCH EXISTING. LENGTH OF HARDWARE SHALL BE ADJUSTED TO ACCOMMODATE NEW WORK.

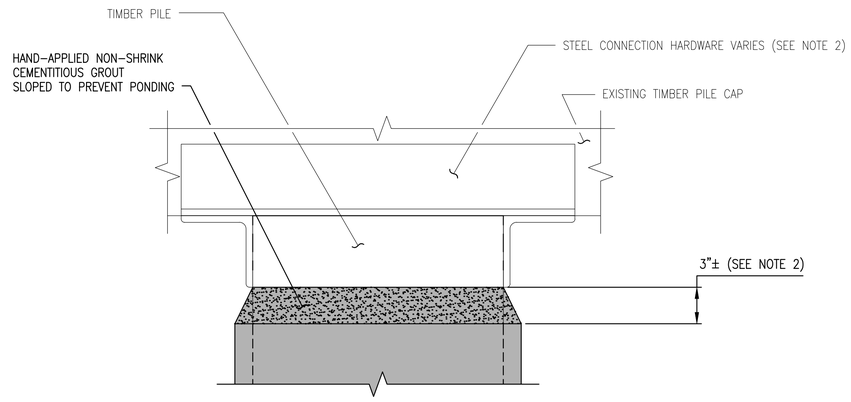
2. PILE CAP CONNECTION HARDWARE (TO REMAIN IN PLACE) VARIES, SEE SHEET C-002. LOCATE TOP OF FORMWORK APPROXIMATELY AS SHOWN BENEATH THE CONNECTION TO REMAIN. HAND APPLIED NON-SHRINK GROUT SHALL BE INSTALLED TO PREVENT PONDING.



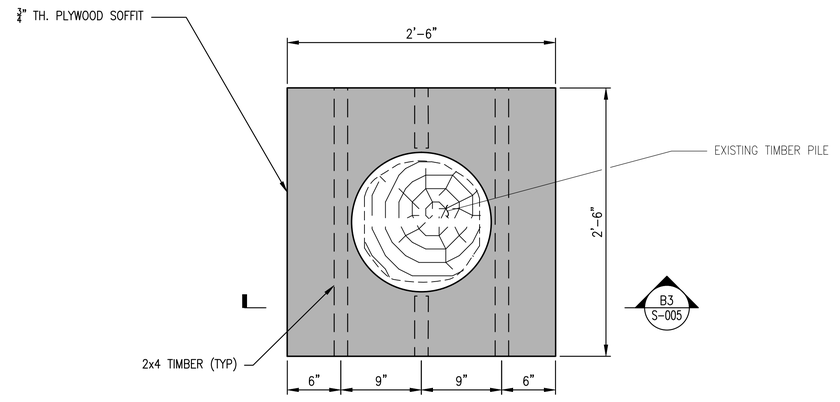
C3 PILE REPAIR SECTION
SCALE: 3"=1'-0" 0 3" 6" 9"



B3 REPAIR BOTTOM CLOSURE SECTION
SCALE: 1½"=1'-0" 0 1½' 1' 1 1/2'



A1 PILE TOPPING DETAIL
SCALE: 3"=1'-0" 0 3" 6" 9"



A3 REPAIR BOTTOM CLOSURE DETAIL
SCALE: 1½"=1'-0" 0 1½' 1' 1 1/2'

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SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH STRUCTURAL
TYPE 2-EPOXY REPAIR

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

APPROVED BY:
TECHNICAL DIRECTOR DATE

PROJECT NUMBER	DRAWING NUMBER
PROJECT #	DWG #
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S-005	SHEET 11 OF 12

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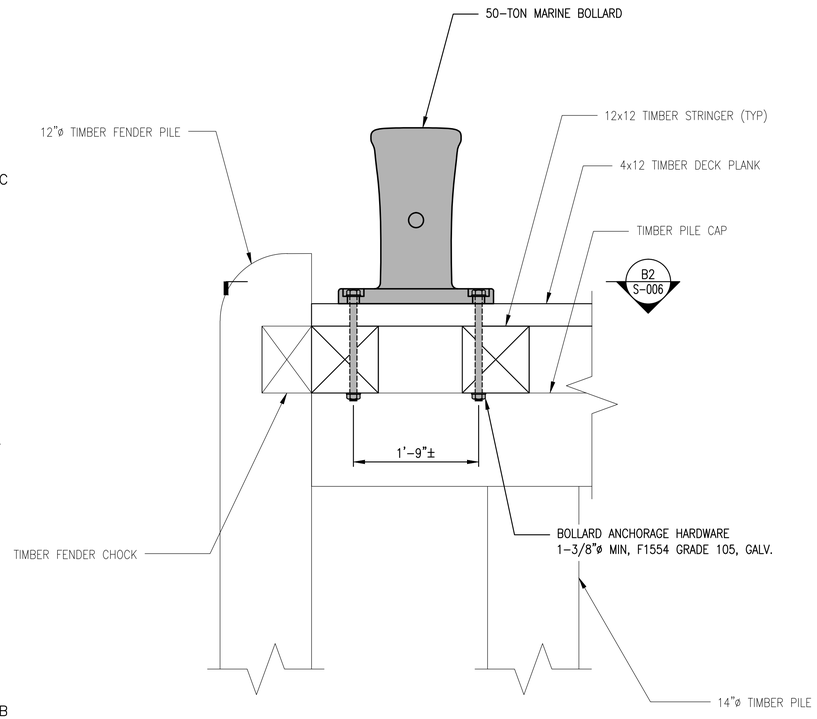
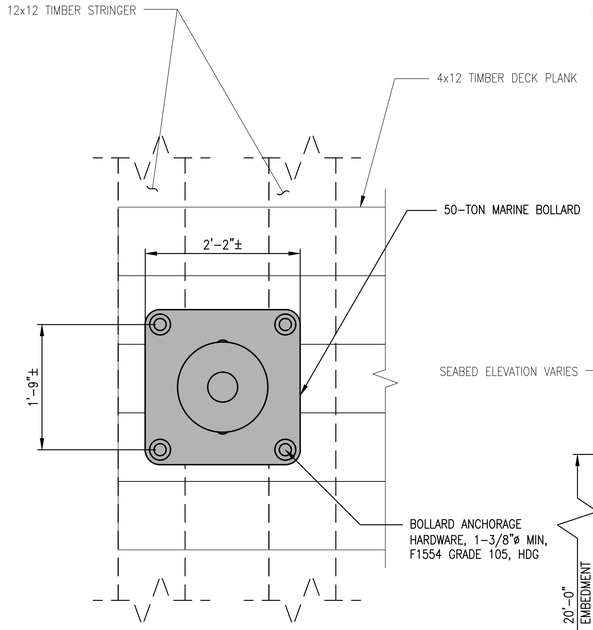


B1 MOORING BOLLARD REPLACEMENT
SCALE: 1"=1'-0"



B2 MOORING BOLLARD REPLACEMENT PLAN
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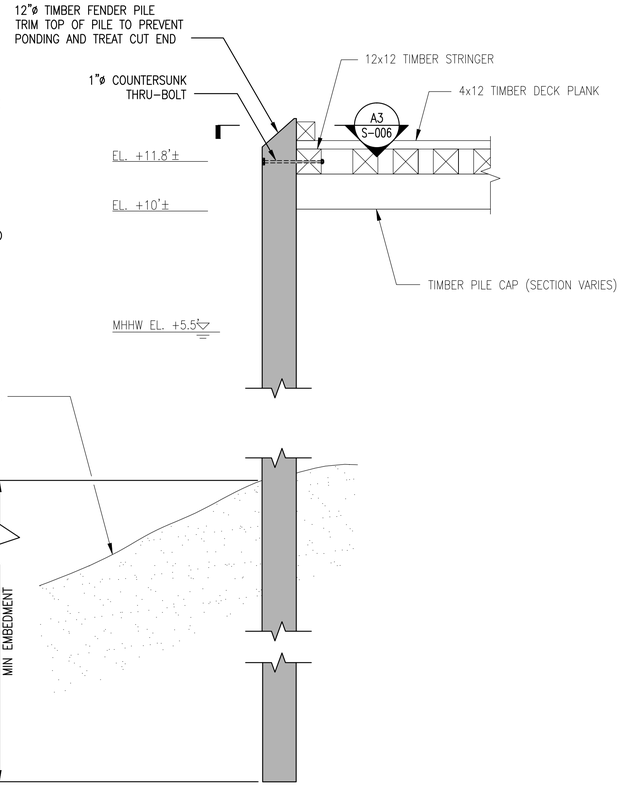

B3 FENDER PILE REPLACEMENT SECTION
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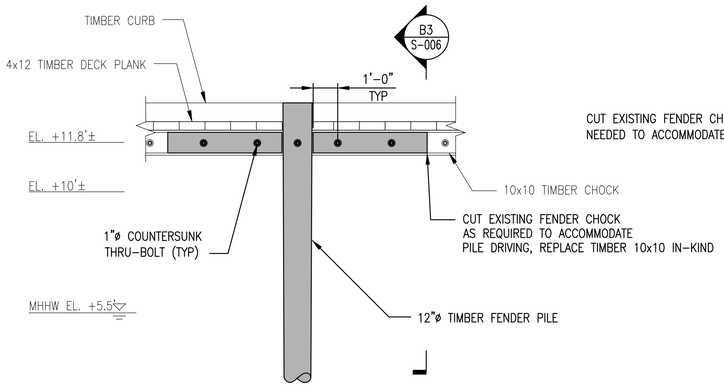
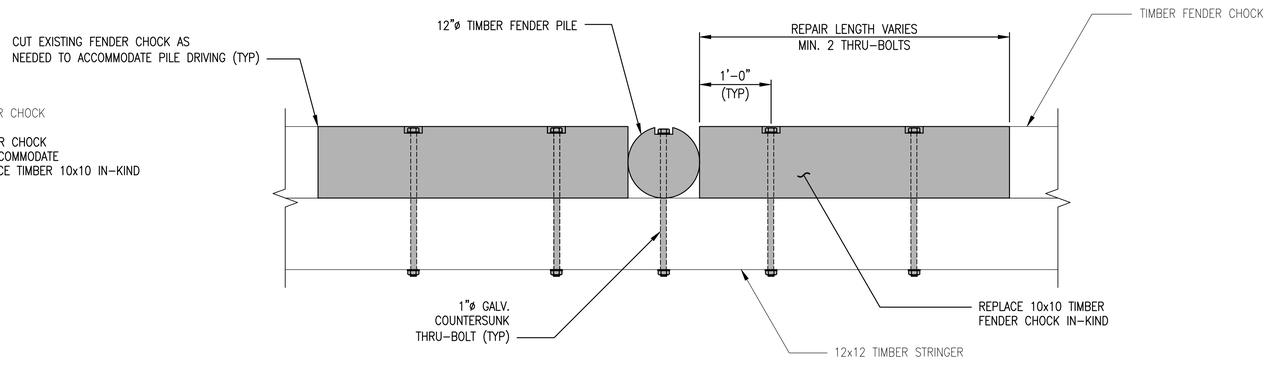


A1 FENDER PILE REPLACEMENT ELEVATION
SCALE: 3/8"=1'-0"



A3 FENDER PILE REPLACEMENT DETAIL
SCALE: 3/8"=1'-0"

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SHEET TITLE

REPAIR INDUSTRIAL WHARF
USCG CEU OAKLAND
OAKLAND CA
USCG LOS ANGELES/LONG BEACH STRUCTURAL

MISC. REPAIR DETAILS

PREPARED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT MGR		DIVISION CHIEF

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