PORT of SAN DIEGO
ENGINEERING-CONSTRUCTION
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101
(619) 686-6245

TECHNICAL SPECIFICATIONS

IMPERIAL BEACH PIER ENHANCEMENTS PHASE 2

IMPERIAL BEACH, CALIFORNIA

SPECIFICATION NO.:	**2022-07**
WBS NO.:	**EC-0008-01**
DRAWING NO.:	**IB-2022-01**
PROJECT MANAGER:	**MAHMOUD AKHAVAIN**
DESIGN CONSULTANT:	**MOFFATT & NICHOL**
CONTRACT TIME:	**150 CALENDAR DAYS**
CONTRACT TYPE:	**FORMAL BID**
ENGINEER'S ESTIMATE:	**$1 MILLION**

Approval Recommended By: 07/12/2022	Approved By:
PROJECT MANAGER **DATE**	**SENIOR ENGINEER** **DATE**
Approved By:	
MANAGER **DATE**	

SECTION 6.0 – TECHNICAL SPECIFICATIONS

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DIVISION 01 – GENERAL REQUIREMENTS

SECTION 01 11 00
SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

A This Section provides a summary of the Work described in the contract Plans and Specifications. This summary is a brief description of the Work and the requirements for executing the Work. This information is supplemented by the information contained in the Contract Plans and Specifications and by any regulations, codes, certifications, notices, etc. that may be enforced or required by jurisdictions that have authority over the Work.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 13 00 - SUPPLEMENTARY REQUIREMENTS
2. SECTION 01 14 00 - WORK RESTRICTIONS
3. SECTION 01 33 00 - SUBMITTAL PROCEDURES
4. SECTION 01 41 00 - REGULATORY REQUIREMENTS

1.3 SUMMARY OF WORK COVERED BY CONTRACT DOCUMENTS

A The Work Includes

1. In accordance with the Contract Documents, the Contractor shall furnish all labor, materials, equipment, supplies, transportation, and disposal as necessary to complete the construction of Imperial Beach Pier Enhancements Phase 2, Imperial Beach, California.
2. The work shall include, but not limited to the following as shown on the Plans IB-2022-01 and described in these Specifications 2022-07 of the San Diego Unified Port District.
    a. Enhancements at Bents 48-49
        1) Existing timber railing along perimeter of existing deck extension: Remove and replace with cable railing with Ipe wood handrail and lighting.
        2) New canopy structure: Construct steel canopy structure with lighting at existing deck extension.
3. Contractor shall attend the project construction groundbreaking as required.
4. It is intended that the Work be completed in every respect under the Contract Document, and such items or details not mentioned above or not included in the Bid Schedule that are required by the Contract Documents shall be furnished, performed, placed, constructed, or installed by the Contractor.

B Contractor License Information

1. State of California Class A License, in accordance with the provisions of Division 3, Chapter 9, of the Business and Professions Code of the State of California.

C Small Business Enterprise (SBE) Goal

1. The District has set a goal of three percent (3%) of the total dollar value of the prime Contract to small business (SBE) concerns. A bidder can meet this goal by being an SBE prime or through the use of SBE sub participants. See detailed Specifications in SECTION 01 13 00 - SUPPLEMENTARY REQUIREMENTS.

D Type of Contract

1. Project will be constructed under a single prime contract.

1.4 PROJECT INFORMATION

A Project Identification

1. Specification No.: 2022-07
2. Project Title: Imperial Beach Pier Enhancements Phase 2
3. Project Location: Imperial Beach Pier, Imperial Beach, CA 91932.

B Contract Document Specifications and Drawings

1. Drawings: The following drawings accompany these Specifications and are made a part thereof:
    a. Drawing Number: IB-2022-01
        1) Given dimensions shall be followed in preference to scaled dimensions in all cases. It is the intention of the drawing to convey the impression that all parts of the work to be done shall be complete in every detail, regardless of an omission thereon to name or show fully any element or part. The Contractor shall report any error, omission, or inconsistency in the drawings and/or specifications before commencing work.
    b. Drawing Title: Imperial Beach Pier Enhancements Phase 2

C Contract Time Limits and Liquidated Damages

1. <u>Commencement of Work</u>
    a. Contractor shall commence work under this Contract within seven (7) calendar days of the issuance of the Notice to Proceed or on the date specified within the Notice to Proceed and the project shall be completed within **150 calendar days** from that date, including Saturdays, Sundays and holidays.
2. Liquidated Damages
    a. Contractor further agrees to pay, as liquidated damages, the sum of $1,500 for each consecutive calendar day thereafter as provided in Article 5.8.2, “LIQUIDATED DAMAGES”, of the General Conditions. In determining the

number of days this Contract, or portions thereof, remains incomplete, the completion date shall be as defined in Article 5.1.2.1.8.

D District: San Diego Unified Port District

1. Mailing Address

San Diego Unified Port District
Engineering-Construction Department
P.O. Box 120488
San Diego, CA 92112-0488

2. Hand or Courier Delivery Address

San Diego Unified Port District
Engineering-Construction Department
3165 Pacific Highway
San Diego, CA 92101-1128

3. District's Engineer

Ernesto Medina
Chief Engineer
Tel No.: (619) 686-7229
Email: emedina@portofsandiego.org

4. District's Project Manager:

Mahmoud Akhavain
Senior Project Manager
Tel No.: 213-760-1294
Email: c-makhavain@portofsandiego.org

5. District's Construction Manager

Shane Peterson
Capital Project Manager
Tel No.: (619) 725-6050
Email: speterso@portofsandiego.org

E Engineer's Consultants: The Engineer has retained the following design professionals who have prepared designated portions of the Contract Documents.

1. Marine Structural

Moffatt & Nichol
Matthew N. Martinez, S.E.
Tel No.: (619) 220-6050
Email: mmartinez@moffattnichol.com

2. Landscape Architect

Civitas
Kyle Hopkins
Tel No.: (619) 571-0053
khopkins@civitasinc.com

3. Electrical Engineer

BSE Engineering
Alan Brown, P.E.
Tel No.: (303) 571-0053
Email: abrown@bseengineering.com

F Project Management Documentation & Administration:

1. The District reserves the right to utilize an online cloud-based project management system. Virtual Project Manager (VPM) allows for paperless documentation and project administration. For more information, go to www.virtual-pm.com.

a. See SECTION 01 33 00 - SUBMITTAL PROCEDURES and SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION for requirements for administering and using VPM.

G Labor Compliance Documentation

1. The District reserves the right to utilize an online cloud-based Labor Compliance System. LCPtracker allows for weekly submittal of certified payrolls and related labor compliance documentation. LCPtracker is available to Contractor involved with the project using the internet. For more information, go to www.lcptracker.com.

a. See SECTION 01 33 00 - SUBMITTAL PROCEDURES for requirements for administering and using LCPtracker.

1.5 WORK RESTRICTIONS AND REGULATIONS

A Work Restriction, General: Comply with restrictions to construction operations listed in this Section, SECTION 01 13 00, SECTION 01 14 00, SECTION 01 41 00, and in other portions of the Contract Documents.

1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

2. Comply with all local, state, and federal requirements for the disposal of materials and debris. The Contractor shall provide valid documentation, when requested by the Engineer, to demonstrate the disposal of materials and debris is in compliance with local, state, and federal requirements.

B On-Site Work Hours: Limit work to normal business working hours of 7:00 AM to 3:30 PM, Monday through Friday, unless otherwise indicated. Contractor can adjust hours with notice to District.

C Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by District or tenants unless permitted under the following conditions and only after providing temporary utility services according to requirements indicated.

1. Notify District's Construction Manager not less than seventy-two (72) hours in advance of proposed disruptive operations.
2. Obtain District's Construction Manager written permission before proceeding with utility interruptions.

D Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise, vibration, odors, or other disruptions to the District or Public.

1. Notify District's Construction Manager not less than **seventy-two (72) hours** in advance of proposed disruptive operations.
2. Obtain District's Construction Manager written permission before proceeding with utility interruptions.

E Nonsmoking Building: Smoking is not permitted within buildings or within twenty (20) feet (6 m) of entrances, operable windows, or outdoor-air intakes.

F Controlled Substances: Use of controlled substances on Project site is not permitted.

G Longshoreman Workers Insurance: Comply with the requirements specified in Section 01 41 00 – REGULATORY REQUIREMENTS

1.6 SPECIFICATION AND DRAWING CONVENTIONS

A Division 01 General Requirements: Requirements of Section in Division 01 apply to the Work of all Sections in the Specifications.

B Specification Requirements: Specification requirements are to be performed by Contractor unless specifically stated otherwise.

C Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:

1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this document.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 11 00

SECTION 01 13 00
SUPPLEMENTARY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A This section describes the supplementary requirements for the Work. Information provided in this section may be addressed in further detail elsewhere in the Specifications. These requirements are in addition to those appearing elsewhere in the Specifications.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 14 00 - WORK RESTRICTIONS
2. SECTION 01 33 00 - SUBMITTAL PROCEDURES
3. SECTION 01 41 00 - REGULATORY REQUIREMENTS
4. SECTION 01 50 13 - TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

1.3 COMMUNICATIONS REGARDING THE WORK

A Authorization: No directions or information regarding the Work shall have a contractual effect unless directed to the Contractor and authorized by the District. Afterwards, all communications shall be addressed to the Construction Manager, Shane Peterson, or alternate District Representative determined by the Construction Manager, and mailed to:

Shane Peterson, CCM

San Diego Unified Port District

Engineering-Construction Department

P.O. Box 120488

San Diego, CA 92112-0488

B Prioritization: The Contractor shall prioritize all communications regarding the Work that require a response by the District. The Contractor shall initiate all communications regarding work as far in advance as is practical to permit timely District response.

C Standard Communication Forms: **APPENDIX A** contains standard communication forms that shall be used by the Contractor in communications regarding the Work unless otherwise directed by the District. The Contractor shall fill in all information required by the forms. If a space on the forms calls for information that is not applicable to the specific communication involved, the Contractor shall fill in “None,” or “N/A,” or other similar comment. If additional information is required beyond that called for on the forms, it shall be provided by the Contractor as an attachment to the form.

1.4 DISTRICT REVIEW TIME

A Contractor shall allow the following review time periods:

1. Requests for Information (RFI's): Seven (7) calendar days unless stated otherwise in the Contractor Documents.
2. Construction Best Management Practices (BMP) Plan: Fourteen (14) calendar days. Resubmittals shall be allowed the same for review as the time permitted for the initial submittal.
3. Submittals: Twenty-one (21) calendar days unless stated otherwise in the Contract Documents. Resubmittals shall be allowed the same for review as the time permitted for the initial submittal.
4. Substitution Requests: Fourteen (14) calendar days unless stated otherwise in the Contract Documents.
5. Other Requests: Fourteen (14) calendar days unless stated otherwise in the Contract Documents.

1.5 ACCESS TO SITE, BUSINESSES, TENANT LEASEHOLD, PRIVATE PROPERTY, DRIVEWAYS, ALLEYWAYS, AND THOROUGHFARES

A The Contractor shall schedule its operations on the job site to provide for:

1. Pedestrian/vehicle ingress and egress for building, pier, parking lots, and other Tidelands business sites at all times, except if otherwise approved in writing by the Engineer.
2. Pedestrian/vehicle ingress and egress for each driveway on the pier at all times (work on said facilities shall be scheduled so that no less than one-half the width is available at a time).
    a. The District recognizes temporary complete closure of certain pedestrian/vehicle ingress and egress locations may be unavoidable due to site and project requirements. Contractor shall work closely with Engineer to keep these instances to an absolute minimum.
    b. When complete closures are necessary, detours shall be provided unless they are shown to cause undue hardship
3. Driveways, Walkways and Entrances: Keep driveways, parking lots, loading areas, and entrances serving premises clear and available to District, District's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
    a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
    b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
4. The construction schedule shall show the start and end of any partial closures to pedestrian and vehicle pathways, walkways, alleys and driveways. Contractor

shall notify the District **seventy-two (72) hours** in advance of any closures and post notices of closures **forty-eight (48) hours** in advance. This will allow the Engineer time to fulfill the District's responsibility to notify all concerned parties and to apprise each party of what conditions can be expected when construction commences.

5. Contractor shall notify Engineer immediately upon any change in project schedule or operation that may affect access. Engineer will be responsible for notification to affected parties

1.6 COORDINATION WITH OCCUPANTS AND THE PUBLIC (OCCUPANTS MAY BE DISTRICT OR TENANT)

A Full Owner Occupancy: Owner will occupy the site and tenants during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations or the Public. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from the District and approval of authorities having jurisdiction.
2. Notify District not less than **seventy-two (72)** hours in advance of activities that will affect Port's operations or the Public.

1.7 PROTECT AND MAINTAIN EXISTING FACILITIES

A Contractor shall protect and maintain all the existing facilities within the project limit. The facilities include, but not limited to, fence and gate, utility boxes, railings, restrooms, lifeguard station, and restaurant.

1.8 CLEANUP

A Throughout all phases of construction and until final acceptance of the specified Contract Work, Contractor shall keep the pavement surfaces and project site clean and free from rubbish, debris, gravel, and other loose materials generated by contractor operations. Attention is directed to Article 5.3.23, "CLEANING UP", of the General Conditions. In addition to the requirements contained in the section, the following requirements shall also apply:

1. Contractor shall provide the necessary personnel, equipment, and materials needed to maintain cleanliness. Conduct daily inspections to verify that requirements of cleanliness are being met.
2. Use cleaning materials and equipment, which are compatible with the surfaces being cleaned. Such cleaning materials and equipment shall be approved by the Engineer. The Contractor shall use broom and vacuum cleaner to remove gravel and other loose materials generated by the Contractor operations to keep job site surfaces clean. The District reserves the right to withhold approval of payment requests for failure on the part of the Contractor to regularly clean the project site

in conformance with the requirements of this section. The District also reserves the right to clean any work areas that have not been acceptably cleaned by the Contractor and charge the Contractor for the District's cleaning costs.

3. The Contractor shall take every reasonable precaution to prevent foreign material and debris from falling into or otherwise reaching the bay during its operations. Any foreign materials or equipment, buoyant or non-buoyant, that reach the bay shall be removed by the Contractor.

4. Objects that sink to the bottom of the bay shall be periodically removed during the execution of the Contract. Any object, which in the opinion of the Engineer might constitute a nuisance or a dangerous obstruction to navigation or cause pollution to the bay water, shall be removed immediately. During the final inspections, the District may inspect the bay bottom in the vicinity of the work to assure complete cleanup and removal of all debris

B Upon completion of Work, and prior to final acceptance, the Contractor shall remove from the vicinity of work and dispose of off Tidelands all surplus materials and equipment used by the operations, and completes all the cleaning and removal of rubbish and debris.

C The Contractor shall submit documentation to demonstrate the disposal site for all materials, equipment and debris is in compliance with all federal, state, and local regulations.

1.9 WARRANTIES

A General.

1. Refer to Article 5.3.3 "GUARANTEE" of the General Conditions for additional information.

2. All Warranties including standard one-year warranty shall start at date of Final Completion of the Contract, or when work of an area is substantially completed, accepted and taken over for use by the District. Ensure that all warranties comply with this stipulation prior to submission of same.

3. The District shall give prompt notice in writing to the Contractor of any defects noted during the warranty periods(s) promptly requesting Contractor to remedy such defects.

4. During the month prior to the end of the standard one year warranty period, the District and the Contractor, shall conduct an inspection of the project, the Contractor shall promptly remedy any defects due to faulty materials or workmanship.

5. At the end of the project the contractor shall formally submit to the District all extended warranties given by Subcontractors for their work on the project and such Subcontractors for their work on the project and such Subcontractors shall be formally advised of the assignment.

B Special Warranties

1. Refer to technical Specification Sections for special warranties

1.10 EQUAL OPPORTUNITY CONTRACTING REQUIREMENTS (WITH SBE GOAL)

A Bidders should be fully informed regarding the Equal Opportunity Contracting Requirements. In order to be considered a responsive bidder, the bid must either meet the Small Business Enterprise (SBE) participation goal established for this Contract in accordance with Section E or comply with the good faith efforts requirements in accordance with Section F. Award of the Contract will be conditioned upon meeting the Equal Opportunity Contracting Requirements.

B Board of Port Commissioners Policy No. 359: Equal Opportunity Contracting - Policy Statement

1. It is the policy of the San Diego Unified Port District (District) that all businesses be provided equal opportunity to participate in the performance of District contracting and leasing opportunities; and to ensure that workers on public works projects of one thousand dollars ($1,000) or more are paid the general prevailing rate of per diem wages for regular, holiday, and overtime work as provided by California Labor Code Section 1771.

2. The District is committed to take all necessary and reasonable steps to increase its utilization of small businesses for a positive economic impact to the region. District policy prohibits discrimination against any person because of age (over 40), ancestry, color, disability (mental and physical), gender (including identity, appearance, or behavior, whether or not that identity, appearance, or behavior is different from that traditionally associated with the person's sex at birth), marital status, medical condition, military status, national origin, pregnancy, race, religion, sexual orientation, genetic information, or veteran status, in the award or performance of District contracts or leases.

3. The District will create a level playing field on which small businesses can compete fairly for District contracts. This policy will help remove barriers to the participation of small businesses in District contracts and assist in the development of firms to compete successfully in the marketplace outside the District's Equal Opportunity Contracting Program.

C SBE Program

1. SBE eligibility is based on economic size standards determined by number of employees or gross receipts and varies by industry. The District recognizes both federal and State of California size standards.

2. The District utilizes external resources to confirm status of SBE bidders and SBE sub-participants. The information is maintained and updated by those external resources and their registered clients. Businesses that are registered by those external resources claim they meet the applicable federal or State of California

size standards in their industry to qualify as a small business for each such resource in which they are listed.

3. The District does not control or guarantee the accuracy or completeness of the external resource's information.

4. Questions or challenges regarding a small business size or industry must be addressed with the external resource.

D SBE Certification

1. In order for credit to be allowed toward an SBE goal, an SBE must be certified as of the date of bid opening.

2. SBE participation may be as a prime, subcontractor, material supplier or wholesaler, trucker, partner, joint venture, or broker.

3. In order for credit to be allowed toward an SBE goal, an SBE must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work; and must carry its responsibility by performing, managing, or supervising the work.

4. Credit will be based on the dollar amount of the SBE award for this project and the industry that the SBE is certified under.

5. For example, an SBE certified as a broker will only count their broker fee towards the SBE goal. Additionally, for a partnership or joint venture with an SBE, credit would only be the SBE dollar value of the SBE partner or joint venturer, unless the partnership or joint venture is certified as an SBE.

6. An SBE qualifies as such, in their designated industry by any of the following methods:

   a. Being certified as a Disadvantaged Business Enterprise (DBE) by the State of California Department of Transportation (CALTRANS)

   b. Being certified by the U.S. Small Business Administration and registered as such in the System for Award Management (SAM) database or the Dynamic Small Business Search database

   c. Being certified by the California Department of General Services (DGS) small business database

   d. Being certified by a government agency using size standards no greater than the higher of the federal or State of California criteria for the relevant industry.

E SBE Goal

1. The bidder must satisfy the SBE Requirements for this Contract by meeting the SBE Goal set forth in accordance with this Section or by meeting the good faith efforts requirements in the following Section F.

2. The District has set a goal of **three percent (3%)** of the total dollar value of the prime Contract to small business (SBE) concerns. A bidder can meet this goal by being an SBE prime or through use of SBE sub-participants.

3. If the bidder for this solicitation qualifies as an SBE, the Contract goal shall be deemed to have been met.

4. All bidders must complete the SBE Sub-participant Form and submit it electronically prior to the bid deadline with their SBE participants. The following information concerning an SBE is required: (1) the name and address of each SBE; (2) a description of the work to be performed by each SBE; and (3) the dollar value of the work of the SBE.

5. The SBE Sub-participant Form shall be completed and then submitted with the original Bid Proposal Package.

6. The completion of the SBE Sub-participant Form in no way relieves the Contractor of the requirements of California State Law to list required subcontractors at the time of bidding on the Subcontractor Listing Information Form pursuant to the California Subletting and Subcontracting Fair Practices Act

7. Additionally, nothing herein is intended to allow any change or addition to the information provided on the Subcontractor Listing Information Form.

F Good Faith Efforts

1. The bidder must satisfy the SBE Requirements for this Contract by meeting the good faith efforts requirements in this Section or meeting the SBE Goal set forth in accordance with Section E above. Bidders relying on good faith efforts to meet the SBE requirements shall submit information and documentation of the actions taken to actively and aggressively achieve the SBE goal in accordance with this Section F at the time it is required to submit its original Bid Proposal Package. Only actions taken prior to submission of the electronic bid may count towards good faith efforts.

2. Good faith efforts must be specific to each Contract opportunity. Activities related to multiple projects or general efforts will not count.

3. The District will determine whether a good faith effort was made in compliance with the following requirements. In order for a bidder to meet the SBE requirements for this Contract based on good faith efforts, a bidder must comply which <u>each</u> subsection a through e:

   a. The bidder must have accomplished one or more of the following below (1, 2, or 3), documentation shall include verification of pre-bid attendance or verification of advertisement, and/or verification of contact with community organizations such as telephone records, fax, or email transmittal.

      1) Attended any pre-solicitation or pre-bid meetings to inform contractors of Equal Opportunity Contracting Requirements,

      2) Advertised in general circulation, trade association, and minority-focused media soliciting bids, including SBEs, for this contract opportunity,

3) Effectively used the services of available community organizations; contractors' groups; local, state, and federal business assistance offices; and other organizations that provide assistance in the recruitment and placement of small businesses.

b. The bidder must have accomplished one or more of the following below (1, 2, 3 or 4), documentation shall include verification of any of the actions such as listed areas of subcontracted work along with verification of telephone records, fax, or email transmittal, and other confirming documents.

1) Selected portions of the work to be performed by subcontractors in order to increase the likelihood of meeting the SBE Goal (including, where appropriate, breaking down contracts into economically feasible units to facilitate subcontractor participation),

2) Provided interested businesses with adequate information about the plans, specifications, and requirements of the Contract,

3) Made efforts to assist interested businesses in obtaining bonding, lines of credit, or insurance required by the District or contractor; and,

4) Made efforts in establishing delivery schedules, where the requirement permits, which encourage participation by small businesses.

c. The bidder must have provided written notice to at least three (3) businesses in each subcontracted portion of work, or can demonstrate that none exist, and that their interest in the Contract was solicited with five (5) days to allow the businesses to participate effectively.

d. The bidder must have followed up on initial solicitations of interest prior to three (3) days before bid opening by contacting businesses to determine with certainty whether the SBEs were interested.

e. The bidder must have negotiated in good faith with interested businesses, not rejecting businesses as unqualified without sound reasons based on a thorough investigation of their capabilities.

f. In order to count, good faith efforts must be those that could reasonably be expected to result in goal attainment by a bidder who aggressively and actively seeks to obtain SBE participation.

g. The District will make a determination of compliance by confirming that bidder met the requirements of a through e above based on information submitted by bidder with its original Bid Proposal Package. The District may request additional information and conduct follow up to confirm any claimed good faith efforts.

G Substitution of an SBE

1. If after submission of electronic bids or award of Contract, it is determined that a claimed SBE sub-participant is unable to perform the Contract successfully, the prime contractor must make good faith efforts to replace that SBE sub-participant with another SBE. This is separate from any requirements under the California

Subletting and Subcontracting Fair Practices Act and any provisions of the Contract and Specification relating to subcontractors which must still be complied with.

2. Any substitutions of an SBE during Contract performance requires consent and approval of the District. In these instances, the District reviews good faith efforts made to replace SBEs with another SBE and verifies the eligibility of the substitute firm.

H Resources

1. The District's Equal Opportunity Contracting Information is provided for you on our website, www.portofsandiego.org. Click on "About the Port", which takes you to the "Doing Business" page. Click on "View Equal Opportunity Contracting Program" which contains websites that will provide you with small business sub-participants to contact in your good faith efforts for sub-contracting opportunities on specific work categories pertaining to this project, a list of Outreach Organization's and Good Faith Effort Documentation forms.

2. If you do not have access to the Internet, please contact Equal Opportunity Contracting at (619) 686-7245.

I Equal Employment Opportunity Program Information

1. As prescribed under BPC Policy No. 358, the District requires all service providers, vendor, contractors and lessees to comply with all applicable Federal, State, and local law or regulation relating to equal employment opportunity and nondiscrimination, including any such law, regulation, and policy hereinafter enacted for the promotion of equal employment opportunities and nondiscrimination.

2. Questions regarding the Equal Opportunity Program Requirements of this opportunity should be directed to:

Shirley Parsons, Manager
Diversity, Equity, & Inclusion
Phone: (619) 686-7245, Fax: (619) 686-6408
E-mail: sparsons@portofsandiego.org

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 13 00

SECTION 01 14 00
WORK RESTRICTIONS

PART 1 GENERAL

1.1 SUMMARY

A This section describes special requirements and construction constraints that may affect the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 13 00 - SUPPLEMENTARY REQUIREMENTS
2. SECTION 01 33 00 - SUBMITTAL PROCEDURES
3. SECTION 01 35 23 - OWNER SAFETY REQUIREMENTS
4. SECTION 01 41 00 - REGULATORY REQUIREMENTS
5. SECTION 01 50 13 - TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

1.3 WORKING HOURS, HOLIDAYS AND OTHER LIMITS

A Work or activity of any kind shall be limited to the hours **from 7:00 AM to 3:30 PM, Monday through Friday**, unless otherwise approved by the Engineer.

1. Construction trucks hauling sediment or materials to or from the Project site shall not occur between the AM peak hours of 7:00 a.m. and 9:00 a.m., and shall be limited to no more than five (5) loads per hour during the PM hours of 4:00 p.m. and 6:00 p.m.

B Work in excess of eight (8) hours per day, on Saturdays, on Sundays, or on District Holidays (except emergency work) must be approved by the Engineer and shall be scheduled at least **seventy-two (72) hours** in advance with the Engineer. Contractor shall allow ample time to enable Engineer to make satisfactory arrangements for inspection of work in progress.

C District Holidays are:

New Year’s Day

Martin Luther King Day (3rd Monday in January)

President’s Day (3rd Monday in February)

Cesar Chavez’s Birthday (March 31)

Memorial Day (Last Monday in May)

Juneteeth (June 19th)

Independence Day

Labor Day (1st Monday in September)

Veteran's Day

Thanksgiving Day and following Friday

Christmas Eve

Christmas Day

New Year's Eve

D Truck transport/disposal operations will not be allowed to idle on site for more than five (5) minutes.

1.4 COST OF OVERTIME CONSTRUCTION INSPECTION

A Overtime construction work performed at the option of, for the convenience of, or due to negligence of the Contractor will be inspected by the District at the expense of the Contractor of or for the convenience of the Contractor will be inspected by the District at the expense of the Contractor. For any such overtime beyond the regular 8-hour day and for any time worked on Saturday, Sunday, or District Holidays, the charges will be as shown in the following schedule:

1. Charge per Hour:

   a. Direct Inspection: $187.50/hour

B There will be no charges for the inspection of overtime work ordered by the Engineer or required by the Specifications.

1.5 CONTRACTOR'S WORK PLAN

A The Contractor has the responsibility of determining an overall sequence of pre-construction and construction/remediation activities, provided that it meets the requirements set forth in this section, other sections and the drawings for this project.

B The Contractor shall submit an overall Work Plan to the Engineer for approval. This plan shall address the general order of work as well as the overall approach as applies to the entire facility. The Contractor shall be responsible for incorporating into the Work Plan all procedures and steps necessary in order to accomplish the work within the contract timeline. In addition, this plan shall summarize the proposed methodology for performing various phases of the work. It shall describe possible equipment and personnel to be used, general sequencing of the work activities, the use of the site for staging, stockpiling and other activities, and security.

1.6 CHANGES TO THE WORK

A Changes to the Work will be set forth in written Contract Change Orders that specify the Work to be done or change to be made, and the payment to be made or credit to be taken and the adjustment of time, if any. Attention is directed to Article 5.7.1, "CHANGES AND EXTRA WORK", of the General Conditions.

B A copy of the District's standard Contract Change Order Request form is included in **APPENDIX A.**

1.7 CONTRACTORS USE OF PREMISES

A Use of Site: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited by District's right to perform work or to retain other contractors on portions of Project, and all applicable sections described in Work Restrictions.

1.8 CONTRACTOR COORDINATION WITH OTHERS

A District: Contractor shall coordinate the construction activities with Tin Fish Restaurant at Pier End through the District. Contractor shall not interrupt utility services or block access to restrooms or restaurant without authorization from the District with 72 hours notice. The District's Construction Inspector and Construction Manager will be available to assist with coordination efforts.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 14 00

SECTION 01 27 00
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SUMMARY

A This section defines the bid schedule, and describes measurement and payment provisions for each of the bid items.

1. Payment for all items of the Bid Schedule whether lump sum or unit price shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidental appurtenances to the items of work being described, as necessary to complete the various items of the WORK all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
2. No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs shall be included in the prices named in the Bid Schedule for the various appurtenant items of work.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. GENERAL CONDITIONS, ARTICLE 5.9 - PAYMENTS AND COMPLETION
2. DIVISION 01 and other related Specification Sections, Appendices, and Exhibits.
3. BID SCHEDULE

1.3 BID ITEM 1 – GENERAL CONSTRUCTION

A No unit measurement shall be made for this item.

B Payment for GENERAL CONSTRUCTION will be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for completion of all mobilization, temporary facilities and utilities, temporary construction signs, demobilization, cleanup, disposal, permits, supervision, planning, design, design engineering fees, construction progress documentation, preparation of Injury and Illness Prevention Plan (IIPP), video monitoring, and furnishing and constructing all facilities, protection of existing improvements, requirements for access to the work, complete in place as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE.

C Payment for this item shall be based on the percent complete of the entire Work.

1.4 BID ITEM 2 – LONGSHOREMEN INSURANCE

A No unit measurement shall be made for this item.

B Payment for a Certificate Of Insurance For LONGSHOREMEN INSURANCE as required by the US Longshore and Harbor Works Act as described in SECTION 01 41 00 - REGULATORY REQUIREMENTS shall be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for obtaining a certificate of worker's compensation insurance for all contractors and subcontractors performing the work, as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE.

C Payment shall be based on the presentation of valid certification of insurance and a copy of the invoice for the insurance. This may be included with the contractor's first progress payment request.

1.5 BID ITEM3 – CONSTRUCTION BEST MANAGEMENT PRACTICES (BMP) PLAN

A No unit measurement shall be made for this item.

B Payment for a CONSTRUCTION BEST MANAGEMENT PRACTICES (BMP) PLAN as described in SECTION 01 57 23 - TEMPORARY STORM WATER POLLUTION CONTROL, shall be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for planning, preparation and implementation of CONSTRUCTION BMP PLAN, complete in place as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE.

C Payment for this item shall be based on the percent complete of the entire Work.

D Up to five (5) percent of this line item (minimum of $250) shall be deducted for each day where the Contractor's Construction BMPs are in not in compliance with the approved Plans and these Specifications and all local or federal regulations and requirements.

1.6 BID ITEM 4 – DEMOLITION AND REMOVAL

A No unit measurement shall be made for this item.

B Payment for DEMOLITION AND REMOVAL shall be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for furnishing all labor, materials, equipment, tools, and incidentals; and for doing all the work of DEMOLITION AND REMOVAL, complete in place, including but not limited to the [applicable work items], and other associated work as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE. See the Work as specified in SECTION 02 41 00 – DEMOLITION AND REMOVAL REQUIREMENTS and as shown in the PLANS for this Bid Item.

C Payment shall be based on the percent complete of this item.

1.7 BID ITEM 5 – CABLE RAILING

A No unit measurement shall be made for this item.

B Payment for CABLE RAILING shall be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for furnishing all labor, materials, equipment, tools, and incidentals; and for doing all the work of CABLE RAILING, complete in place, including but not limited to installation of stainless steel posts, cable railing, Ipe wood handrail, and other associated work as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE. See the Work as specified in SECTION 05 50 00 – ARCHITECTURAL METAL FABRICATIONS, SECTION 05 73 00 – STAINLESS STEEL WIRE ROPE RAILING SYSTEMS, and SECTION 06 10 63 – EXTERIOR CARPENTRY and as shown in the PLANS for this Bid Item.

C Payment shall be based on the percent complete of this item.

1.8 BID ITEM 6 – CANOPY STEEL FRAMING

A No unit measurement shall be made for this item.

B Payment for CANOPY STEEL FRAMING shall be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for furnishing all labor, materials, equipment, tools, and incidentals; and for doing all the work of CANOPY STEEL FRAMING, complete in place, including but not limited to the erection of the galvanized canopy structural steel framing, painting of the structural steel framing, touch up painting, and other associated work as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE. See the Work as specified in SECTION 05 12 00 – STRUCTURAL STEEL FRAMING and as shown in the PLANS for this Bid Item.

C Payment shall be based on the percent complete of this item.

1.9 BID ITEM 7 – CANOPY STAINLESS STEEL PANELS

A No unit measurement shall be made for this item.

B Payment for CANOPY STAINLESS STEEL PANELS shall be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for furnishing all labor, materials, equipment, tools, and incidentals; and for doing all the work of CANOPY STAINLESS STEEL PANELS, complete in place, including but not limited to fabrication and erection of stainless steel canopy panels, powder coated aluminum underhanging shark cutout, and other associated work as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE. See the Work as specified in SECTION 05 50 00 – ARCHITECTURAL METAL FABRICATIONS and as shown in the PLANS for this Bid Item.

C Payment shall be based on the percent complete of this item.

1.10 BID ITEM 8 – PIER TIMBERWORK

A No unit measurement shall be made for this item.

B Payment for PIER TIMBERWORK shall be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for furnishing all labor,

materials, equipment, tools, and incidentals; and for doing all the work of PIER TIMBERWORK, complete in place, including but not limited to the reinstallation of salvaged timber decking, and other associated work as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE. See the Work as specified in SECTION 06 13 33 – PIER TIMBERWORK and as shown in the PLANS for this Bid Item.

C Payment shall be based on the percent complete of this item.

1.11 BID ITEM 9 – ELECTRICAL AND LIGHTING

A No unit measurement shall be made for this item.

B Payment for ELECTRICAL AND LIGHTING shall be made at the lump sum price named in the BID SCHEDULE, which price shall constitute full compensation for furnishing all labor, materials, equipment, tools, and incidentals; and for doing all the work of ELECTRICAL AND LIGHTING, complete in place, including but not limited to installation of handrail lighting, canopy lighting, and other associated work as defined within these Contract Documents, with the sole exclusion of the payments to be made as defined herein for the other items in the BID SCHEDULE. See the Work as specified in SECTION 26 and as shown in the PLANS for this Bid Item.

C Payment shall be based on the percent complete of this item.

1.12 BID ITEM 10 - ALLOWANCE FOR RELATED WORK

A At the request of the Engineer, additional work related to these Contract Documents may be requested of Contractor. Contractor shall submit a detailed cost breakdown and written description of work to be done to Engineer for approval prior to starting this work item.

B Payment for ALLOWANCE FOR RELATED WORK shall be made at the actual price as negotiated with Contractor and paid to each related work item which price shall constitute full compensation for furnishing all labor, materials, equipment, tools, and incidentals and for doing all the work under the ALLOWANCE FOR RELATED WORK and other associated work, complete in place, as defined within these Contract Documents, with the sole exclusion of payments to be made as defined herein for the other items in the BID SCHEDULE.

C Payment shall be based on the approved method of payment as described in a detailed cost breakdown and written description of work.

D Payment for work under this bid item will be made only to the extent that such work is specifically authorized in written direction by the Engineer. Payment for additional work due to unforeseen conditions, including removal of unsuitable material or objects not specified in the Contract Documents, will be made in accordance with the provisions of Article 5.7, “CHANGES IN THE WORK”, of the General Conditions. This bid item is considered incidental to the Contract and may be adjusted or deleted in its entirety.

E Payment for this item shall be made only with prior written direction by the Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 APPLICATION FOR PAYMENT

A Submit applications for payment via VPM in accordance with Article 5.9.2, “APPLICATIONS FOR PAYMENT (PROGRESS ESTIMATES)”, and in “Certified Payroll” and “Invoices” of SECTION 01 33 00 – SUBMITTAL PROCEDURES.

B A copy of the Districts’ standard Progress Estimate form is included in **VPM**.

END OF SECTION 01 27 00

SECTION 01 29 73
SCHEDULE OF VALUES

PART 1 GENERAL

1.1 SUMMARY

A This section includes the requirements necessary for the preparation and submittal of the Schedule of Values for the Work. Refer to Article 5.3.7.1, “SCHEDULE OF VALUES”, of the General Conditions Section.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 27 00 - MEASUREMENT AND PAYMENT
2. SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION
3. SECTION 01 33 00 - SUBMITTAL PROCEDURES
4. BID SCHEDULE

1.3 DEFINITIONS

A Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work, and used as the basis for reviewing Contractor’s Applications for Payment.

1.4 SCHEDULE OF VALUES

A Schedule of Values: Within ten (10) calendar days after Contract Notice to Proceed (NTP), the Contractor shall expand (break down) the lump sum and unit prices entered in the bid schedule in order to submit a detailed Schedule of Values for the Work. The Initial Application for Payment will not be approved until the Schedule of Values has been submitted to and accepted by the District.

B Format and Content: The Schedule of Values shall conform to the format, content, and numbering system of the Contractor’s Construction Schedule. Contractor, subcontractor and suppliers' profit and overhead shall be included in each line item. The items identified in the Schedule of Values should relate to both the BID SCHEDULE and the Construction Schedule. Special item numbers may be sequentially numbered.

1. Entries shall match approved Contractor’s Construction Schedule. The Schedule of Values has to be updated if revisions have been made to the Construction Schedule.
2. The Schedule of Values shall be a detailed itemization of the price to provide each item of work and material on the project. No values shall be included for non-construction activities, including, but not limited to, procurement and submittals, unless such items are shown on the BID SCHEDULE.

3. Each line item on the Schedule of Values shall be presented so that the Engineer can easily find that item of work within the pertinent construction period. The Engineer will evaluate whether that line item or any line item is 100 percent or not.
4. Each line item on the Schedule of Values shall be ascribed a value by the Contractor that represents the value of the Work. If required by the Engineer, the Contractor shall substantiate each value by the use of supplier or subcontractor written quotations, labor rates, hourly estimates, or other industry recognized cost estimating references (as approved by the District).
5. Each line item of the Schedule of Values shall be coordinated with other line items of work.
6. Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed. Each sheet of the Schedule of Values shall be titled and numbered sequentially.
    a. Line Item Number
    b. Description of Item
    c. Quantity
    d. Unit of Measure
    e. Unit Price
    f. Value of Line Item
7. Round amounts to the nearest whole dollar, the total sum shall equal the Contract Sum.

C Schedule Updating: Update and resubmit the Schedule of Values prior to each payment application when approved Change Orders result in a change in the Contract Sum.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 29 73

SECTION 01 31 19
PROJECT MEETINGS

PART 1 - GENERAL

1.1 SUMMARY

A This section describes the requirements for project meetings and the items that are part of those meetings. These requirements are in addition to those appearing elsewhere in the Specifications.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION
2. SECTION 01 33 00 - SUBMITTAL PROCEDURES
3. SECTION 01 35 23 - OWNER SAFETY REQUIREMENTS
4. SECTION 01 57 23 - TEMPORARY STORM WATER POLLUTION CONTROL

1.3 PRE-CONSTRUCTION CONFERENCE

A Upon receipt of the Notice to Proceed, or at an earlier time if mutually agreeable, the District will arrange a Pre-Construction Conference to be attended by the Contractor's project representative authorized to commit on the behalf of the Contractor and to direct the performance of the Work by others, as well as, the Contractor's superintendent, the Owner, the District or his representative, and representatives of utilities, major sub-contractors, and others involved in the execution of the Work.

B The purpose of this conference will be to establish a working relationship and understanding between the parties and to discuss project organization, job communications, the construction schedule, shop drawing submittals and their processing, cost breakdown, payment applications and their processing, extra work procedures and such other subjects as may be pertinent for the execution of the Work, including safety and permit requirements.

C The Contractor shall submit prior to or at the meeting the following items:

1. Injury and Illness Prevention Plan (IIPP) per SECTION 01 35 23 – OWNER SAFETY REQUIREMENTS
2. Construction Best Management Practices (BMP) Plan per SECTION 01 57 23 – TEMPORARY STORM WATER POLLUTION CONTROL
3. Contractor's Work Plan per SECTION 01 14 00 – WORK RESTRICTIONS
4. Construction Start-Up Schedule per SECTION 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION
5. Contractor's Onsite Representative per GENERAL CONDITIONS Articles 5.3.2.2.4 to 5.3.2.2.6.

6. Signed Notification Regarding Environmental Conditions (EXHIBIT A) per SECTION 01 57 19 – TEMPORARY ENVIRONMENTAL CONTROLS.

D The Contractor shall not be allowed to start work at the site until the items listed above have been reviewed and approved.

1.4 PROGRESS MEETINGS

A The District will arrange and conduct weekly progress meetings. The District will prepare and circulate a draft agenda of each meeting. The Contractor may add items as appropriate to the draft agenda.

B Progress meetings shall be attended by the Engineer, District operations personnel, Contractor's project representative and superintendent, and representatives of all subcontractors involved in the Work at the time of the meeting, required by Contractor, or requested by the District.

C The purpose of the meetings will be to facilitate the Work of the Contractor and any subcontractor or other organization that is not on schedule, resolve conflicts, identify and resolve any potential delays or necessary changes in the Work, plan for future activities and in general, coordinate and facilitate the execution of the Work.

D The agenda of progress meetings shall include review of work progress, the latest construction schedule, and the three (3) week look-ahead schedule (both provided by the Contractor), potential project delays, the status of key shop drawings, submittal reviews, information requests, security awareness, safety concerns, record drawings, extra work items, and other issues related to the progress of the Work.

E The construction schedule will be reviewed weekly during the progress meeting to verify at a minimum:

1. Actual start and finish dates of activities
2. Durations and progress of all activities not completed.
3. Critical submittals/materials delivery problems
4. Potential project delays
5. Any activity behind schedule and Contractor's plan to bring it back on schedule
6. Reason, logic, time, and cost data for change order work that is to be incorporated into the construction schedule or payment request form
7. Payment due the Contractor based on percentage complete of items in the payment request form
8. The three (3) week look-ahead schedule for planning purposes.

1.5 OTHER MEETINGS

A From time to time, other meetings may be needed to coordinate the progress of the Work. The District will arrange and conduct any other necessary meetings. The District will prepare a draft agenda for the meeting. The Contractor may add items as appropriate to the draft agenda.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 31 19

SECTION 01 32 00
CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.1 SUMMARY

A This section describes the administrative and procedural requirements for documenting the progress of construction during performance of the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 13 00 - SUPPLEMENTARY REQUIREMENTS
2. SECTION 01 14 00 - WORK RESTRICTIONS
3. SECTION 01 29 73 - SCHEDULE OF VALUES
4. SECTION 01 31 19 - PROJECT MEETINGS
5. SECTION 01 32 36 - VIDEO MONITORING AND DOCUMENTATION
6. SECTION 01 33 00 - SUBMITTAL PROCEDURES

1.3 PROJECT MANAGEMENT DOCUMENTATION & ADMINISTRATION

A The contractor shall submit the items associated with this section via Virtual Project Manager (VPM), an online cloud-based project management system, as specified in SECTION 01 11 00 - SUMMARY OF WORK and SECTION 01 33 00 – SUBMITTAL PROCEDURES.

1.4 DEFINITIONS

A Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
2. Predecessor Activity: An activity that precedes another activity in the network.
3. Successor Activity: An activity that follows another activity in the Network.

B CPM: Critical Path Method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.

1. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

C Float: The measure of leeway in starting and completing an activity.

1. Float time belongs to the Project and is not for the exclusive use or benefit of either Owner or Contractor.

1.5 CONTRACTOR'S CONSTRUCTION SCHEDULES

A General: Prepare network diagrams using AON (activity-on-node) format.

1. The Start-up schedule shall be in a Gantt Chart prepared using Microsoft Project or other software, which can be opened, read, and manipulated in Microsoft Project.
2. Activities shall be broken down so that no activity duration exceeds fourteen (14) calendar days.
3. Along with the Start-up Schedule, the Contractor shall submit a complete list of anticipated submittals as specified in “Submittal Log” of SECTION 01 33 00 – SUBMITTAL PROCEDURES.
4. The start-up schedule shall include review times for the submittals. (Refer to “District Review Time” of SECTION 01 13 00 - SUPPLEMENTARY REQUIREMENTS.

B Construction Schedule: The Contractor’s Construction Schedule shall be of a size required to display entire schedule for the entire construction period. The schedule shall be submitted for approval within fourteen (14) calendar days of the Pre-Construction Conference. If the initial construction schedule submittal is not acceptable to the District, it shall be revised and resubmitted within three (3) calendar days of the return of the submittal to the Contractor.

1. The Construction Schedule shall be in a Gantt Chart prepared using Microsoft Project or other software, which can be opened, read, and manipulated in Microsoft Project.
2. Activities shall be broken down so that no activity duration exceeds fourteen (14) calendar days.
3. The Construction Schedule shall identify the dates for submittal deliveries, reviews and approvals of major submittals including SWPPP (items requiring approval from jurisdictions having authority over the work) and substitution requests. Time should be allowed for resubmittals and subsequent review times.
4. The Construction Schedule shall identify the dates for testing, start-up, commissioning, and training for District staff. In addition, time shall be shown for punch list walkthrough, preparation of the punch list, completion of punch list activities and the punch list acceptance walkthrough.
5. Each of the activities described in the preceding paragraph shall be identified as a separate activity. Each of the activities shall be performed on separate days; none of the activities can be combined to be performed on the same day.
6. The Contractor shall submit a Schedule Narrative. The Schedule Narrative shall describe at a minimum: The basis for the schedule calendar (calendar days,

working days, specified occurrences or dates when work is impacted by identified restrictions, and other pertinent information related to the schedule calendar), the basis used to develop durations for activities (production rates, imposed requirements for start and stop of activities or requirements for curing, etc.), a description of the logic used to sequence activities and a description of the critical path for the Work.

7. The Contractor shall submit a working electronic copy of the schedule and a PDF file.

C Look Ahead Schedule: The Look Ahead Schedule shall be submitted at each weekly progress meeting. The Look Ahead Schedule shall identify the activities that took place during the prior week and identify the activities to be performed in the next three (3) weeks. The activities shown on the Look Ahead Schedule shall relate to the activities shown on the Construction Schedule.

1. The Look-ahead Schedule shall be in a Gantt Chart prepared using Microsoft Project or other software, which can be opened, read, and manipulated in Microsoft Project.
2. Activities shall be broken down so that no activity duration exceeds seven (7) calendar days.
3. Activities shall include those identified in “Activity Work Plan” of SECTION 01 35 53 - SECURITY PROCEDURES.

1.6 CONSTRUCTION SCHEDULE UPDATE AND REVISIONS

A The schedule update shall reflect the progress of the work to date. The schedule update shall be accompanied by a narrative that identifies the items that were updated, modified, revised, added, or deleted and includes an estimated percent complete for the entire Work. Submit the schedule update with Applications for Payment, per “Summary Report” of SECTION 01 31 19 – PROJECT MEETINGS at the weekly progress meeting, if required, or when requested by the District.

B Revisions to the Construction Schedule: If the Contractor is behind schedule by fourteen (14) days, a Recovery Construction Schedule with a narrative of the items that are revised shall be submitted, if requested by the District. The Recovery Construction Schedule shall meet the requirements of the original Construction Schedule regarding activities, descriptions, durations, and narrative. If, in the opinion of the District, the Recovery Construction Schedule does not adequately reflect the performance of the work by the Contractor, the activities, descriptions, durations, narrative, and logic shall be revised to reflect the performance of the Work. Recovery Construction Schedules shall be submitted for approval within five (5) calendar days of receipt of directions from the District to prepare a Recovery Construction Schedule. If the Recovery Construction Schedule submittal is not acceptable to the District, it shall be revised and resubmitted within three (3) calendar days of the return of the submittal to the Contractor.

1.7 DAILY CONSTRUCTION REPORTS

A Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. List of separate contractors, utilities, or other workers at Project site.
3. List of personnel at Project site including name, class, company, and hours worked.
4. Equipment at Project site.
5. Material deliveries.
6. High and low temperatures and general weather conditions, including presence of rain or wind.
7. Accidents.
8. Meetings and significant decisions.
9. Unusual events.
10. Stoppages, delays, shortages, and losses.
11. Meter reading and similar recordings.
12. Emergency procedures.
13. Orders and requests of authorities having jurisdiction.
14. Change Orders received and implemented.
15. Services connected and disconnected.
16. Equipment or system tests and startups.
17. Partial completions and occupancies.
18. Substantial Completion authorized.

1.8 SITE CONDITION REPORTS

A Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information (RFI). Include a detailed description of the differing conditions, together with recommendations for correcting the existing condition. Identify any impacts that may occur to the Contract Documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A Contractor’s Construction Schedule Update: At interval specified in SECTION 01 31 19 – PROJECT MEETINGS, “Updated Version of The Construction Schedule”, update the schedule to reflect actual construction progress and activities. Issue schedule as

specified in SECTION 01 31 19 – PROJECT MEETINGS, “Updated Version of The Construction Schedule” before each regularly scheduled progress meeting.

B Revisions: The schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each such meeting.

C Report: Include a report with the updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.

D Activity Reporting: As the Work progresses, indicate the final completion percentage for each activity.

E Distribution of Approved Schedule: Distribute copies of approved schedule to the Engineer, Construction Manager, Owner, separate contractors, testing and inspecting agencies, and other parties identified by the Contractor with a need-to-know schedule responsibility.

F Posting: Post copies of the schedule in Project Meeting rooms and temporary field offices, if applicable.

G Distribution of Updates: When updates or revisions are made, distribute updated schedules to the same parties, and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

3.2 COORDINATION

A Submittal: Prepare and submit a schedule for all submittals in accordance with “Submittal Log” of SECTION 01 33 00 – SUBMITTAL PROCEDURES, and Register of Required Submittals in **APPENDIX B**.

B Preparation: Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

C Schedule of Values: Coordinate Contractor’s construction schedule with the schedule of values, submittal schedule, progress reports, payment requests, other required schedules, reports, and contract requirements.

D Time Commitments for Work: Secure time commitments for performing critical elements of the Work from entities involved, including but not limited to testing, start-up, commissioning, training, and completion of punch list activities.

E Work Activities: Coordinate each construction activity in the schedule with other activities and schedule them in proper sequence.

3.3 REPORTS

A Daily Construction Reports: Submit daily construction report at intervals identified in “Contractor’s Daily Reports” of SECTION 01 31 19 - PROJECT MEETINGS.

B Site Condition Reports: Submit site condition report at time of discovery of differing conditions together with recommendations for changing the Contract Document and including all information as described in Part 1 – SITE CONDITION REPORTS of this Section.

END OF SECTION 01 32 00

SECTION 01 32 36
VIDEO MONITORING AND DOCUMENTATION

PART 1 GENERAL

1.1 SUMMARY

A This section describes the video and web camera (webcam) documentation service requirements of the construction project and site that may affect the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications.

B Contractor shall provide a Daily video survey of the contractor's work in the field to document construction progress.

C Contractor shall collect and disseminate the video of the progress of work and submit in MP4, AVI or WMV format with high quality resolution.

D The cost of this work shall be included in the bid item of General Construction, as specified in SECTION 01 27 00 – MEASUREMENT AND PAYMENT.

1.2 RELATED SECTIONS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 27 00 – MEASUREMENT AND PAYMENT
2. SECTION 01 33 00 – SUBMITTAL PROCEDURES

1.3 SUBMITTALS

A Submit the video as part of the daily report via Virtual Project Manager (VPM), as specified in SECTION 01 33 00 – SUBMITTAL PROCEDURES.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 32 36

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A This section outlines in general the items that the Contractor must prepare or assemble for submittal during the progress of the Work. There is no attempt herein to state in detail all of the procedures and requirements for each submittal. The Contractor's attention is directed to the individual Specification Section in these Contract Documents that may contain additional and special submittal requirements. The District reserves the right to direct and modify the procedures and requirements for submittals as necessary to accomplish the specific purpose of each submittal. The Contractor shall anticipate resubmitting submittals for major pieces of equipment and for control systems. Should the Contractor be in doubt as to the procedure, purpose, or extent of any submittal, he should direct his inquiry to the Engineer.

1.2 RELATED REQUIREMENTS

A Drawing and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections apply to this Section. Refer to:

1. SECTION 01 13 00 - SUPPLEMENTARY REQUIREMENTS
2. SECTION 01 27 00 - MEASUREMENT AND PAYMENT
3. SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION
4. SECTION 01 35 23 - OWNER SAFETY REQUIREMENTS

1.3 VIRTUAL PROJECT MANAGER (VPM)

A Virtual Project Manager (VPM) allows for paperless documentation and project administration. All posted information is available to all personnel involved with the project at any time using the internet.

B The use of VPM by the Contractor is mandatory. Access to VPM will be provided at no cost to the contractor.

C In order to utilize VPM, the contractor needs a computer, internet access, a digital camera, and a scanner. For more information, go to **www.virtual-pm.com**. To Login, from the homepage, select LOGIN and enter the Username and Password that will be provided to you by the District.

D The contractor shall use the following features:

1. Daily Logs: Contractor's daily reports shall be entered electronically here.
2. Change Order Manager: Contractor requests for change order shall be submitted electronically here.
3. Transmittals: Schedules, Pay applications, etc. shall be electronically submitted here.

4. Submittals: Submittals requiring approval shall be submitted electronically here.
5. RFIs: Requests for information (RFIs) shall be submitted electronically here.
6. Payments: Payments shall use VPM.

1.4 LCPTRACKER (CERTIFIED PAYROLLS)

A LCPtracker allows for submittal of weekly certified payrolls and related labor compliance documentation. LCPtracker is available to Contractor involved with the project using the internet.

B The use of LCPtracker by the Contractor is mandatory. Access to LCPtracker will be provided at no cost to the contractor.

C In order to utilize LCPtracker, the contractor needs a computer and internet access. A digital camera and a scanner may be useful. For more information, go to www.lcptracker.com. To Login, go to www.lcptracker.net and from the homepage, select LOGIN and enter the Username and Password that will be provided to you by the District.

1.5 SUBMITTAL LOG

A The Contractor shall submit a complete list of anticipated submittals, including Specification and/or drawing references when the Start-up Schedule is submitted (Refer to SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION). The submittal list shall be updated with submittal dates on the Contractor's Construction Schedule and periodically thereafter. Any additional submittals shall also be included in updates.

1.6 ADMINISTRATIVE SUBMITTALS

A Contractor Sanctions: The Contractor is reminded of his obligation as required by law to make required submittals promptly to the applicable federal, state, or local agencies. Failure to comply with this requirement may result in the withholding of monthly progress payments and make the Contractor liable for other prescribed action and sanctions.

B Communications: The Contractor shall submit to the Engineer a copy of all letters relative to the Contract, transmitting notifications, reports, certifications, certified payrolls, and the like, that he submits directly to a federal, state, or other governing agencies.

C Contractor Personnel: During the performance of the Contract, the Contractor shall maintain on a daily basis and submit to the Engineer as requested, full and correct information as to the number of person employed in connection with each subdivision of the Work, the classification, rate of pay, citizenship status, and address of each person, and the cost, source, and amount of each class of materials delivered, equipment received, and major construction equipment used in each subdivision of the Work.

D Certified Payroll: In accordance with Article 5.3.2.3, "PAYROLL RECORDS" of the General Conditions, the Contractor shall submit, on a weekly basis, a certified copy of each payroll electronically via the software LCPtracker

1. Electronic submission is a web-based system, accessed on the World Wide Web by a web browser. Each contractor will be given a Log-On identification and password to access the San Diego Unified Port District's reporting system.
2. Use of the system will entail data entry of weekly payroll information including; employee identification, labor classification, total hours worked, and hours worked on this project, wage and benefit rates paid etc. The Contractor's payroll and accounting software might be capable of generating a 'comma delimited file' that will interface with the software.
3. Contractor must require all lower-tier subcontractors the mandatory requirement to use LCPtracker to provide required labor compliance documentation. Lower-tier subcontractors will be given a Log-On identification and password from the Contractor.
4. Training options will be provided to the Contractor.

E Invoices: Applications For Payment (Progress Estimates) shall be in accordance with Article 5.9.2 of the General Conditions and shall be submitted to the Project Manager/Construction Manager.

1.7 TECHNICAL SUBMITTALS

A General

1. Requirements in this Section are in addition to any specific requirements for submittals specified in other Divisions and Sections of these Contract Documents.
2. Each submittal shall contain material pertaining to no more than one (1) equipment or material item and shall have the Specification Section and applicable paragraph number clearly identified on the front of the submittal transmittal form. Each submittal shall be sequentially numbered starting with the first one delivered. Re-submittals shall include the number of the original submittal plus the suffix ".1" for the first re-submittal, ".2" for the second re-submittal, etc. (e.g., submittal 3.0, 3.1, 3.2, etc.). Submittals not conforming to these requirements will be rejected.
3. Submitted data shall be fully sufficient in detail for determination of compliance with the provisions and intent of the Contract Documents.
4. Submittals will be acted upon by the Engineer as promptly as possible and returned to the Contractor no later than the time allowed for review in "District Review Time" of SECTION 01 13 00 – SUPPLEMENTARY REQUIREMENTS. The Contractor shall provide in his Construction Schedule time for District review of each submittal (and re-submittal for major equipment and control systems) in accordance with the allowable time specified herein and in "District Review Time" of SECTION 01 13 00 – SUPPLEMENTARY REQUIREMENTS. This required time for District review shall not be a cause for delay in contract completion or a reason for an extension of contract time. If the Contractor is required by the District to resubmit data, then neither the time required for the Contractor to prepare and resubmit such data, nor the required time for District review, shall be a cause for

delay in Contract completion of for an extension of Contract time. Responsibility for time required for preparing and submitting required data shall be assigned solely to the Contractor.

5. It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the Engineer by the second submission of a submittal item. Additional costs of the Engineer's review beyond the second submission shall be the responsibility of the Contractor and may be deducted from the Contract Amount. This applies to all submittals including shop drawings.

6. After a submittal has been reviewed and accepted, no charges or substitutions in that submittal will be allowed without the Engineer's approval. If allowed, the Contractor will be responsible for the additional time and costs for engineering, administrative, clerical, or other work required for additional review.

7. All submittals including but not limited to layout diagrams, catalog cuts and data, test reports, and information in sufficient detail to show complete compliance with all specified requirements shall be furnished to the Engineer. For Contractor's convenience, a Register of Required Submittals has been attached to the Specification as Appendix B. Although the District has endeavored to indicate all required Contract submittals in the register, there is no expressed or implied guarantee as to the accuracy or completeness of the information contained in the register. Contractor shall be responsible to provide all submittals required per the Contract Documents, whether or not included in the register.

B Submittal Procedure

1. The Contractor shall utilize the Port's online cloud-based project management system (Virtual Project Manager) for submittals.

2. The Contractor shall submit to the Engineer for his review submittals (shop drawings, electrical diagrams, certificate of compliance, and catalog cuts for fabricated items and manufactured items furnished under this Contract.

3. The Contractor shall submit to the Engineer for his review submittals in accordance with Article 5.3.4, "SUBMITTALS", of the General Conditions (shop drawings, electrical diagrams, certificate of compliance, and catalog cuts for fabricated items and manufactured items furnished under this Contract.

4. Once a submittal has been accepted by the District, it shall be the responsibility of the Contractor to ensure that the product/material is comparable with the project/improvement/system being installed by the Contractor. If for any reason the product/material fails to meet the specifications contained herein, the Contractor, at his/her expense, shall replace, fix, or repair said product/material to be in compliance.

C Submittal of Samples

1. Attention is directed to Article 5.3.5, "MATERIALS AND SAMPLES", of the General Conditions.

2. Contractor shall submit a minimum of five (5) submittals for review, of which the Engineer will retain two (2).

3. Samples for Color/Pattern Selection: One (1) set of manufacturer's complete range for initial selection, and additional samples as requested of selected color/pattern for inclusion in final color schedules.

D Shop Drawings

1. Identification: Include name and location of project, name of Contractor, Port District work order and contract numbers, and cross reference to Contract Documents. Number shop drawings consecutively. Drawings shall be of a sufficiently large-scale to accurately describe the work, and be legible, and complete.

2. Submittals shall be accompanied by letter of transmittal addressed to the District, to parties as identified in the District's letter of instruction to be issued to Contractor at start of project. Each submittal shall be consecutively numbered and shall contain lists of items submitted, properly identified as to drawing numbers, Specification Section or other identification; and number and dates of previous submittals, if a re-submittal. Submittals not adequately identified or incomplete will be returned to Contractor for correction and re-submittal.

3. Mark each set of the submittal to show that it has the Contractor's review and approval. Prior to delivery to the District, the Contractor shall review and affix their Contractor's stamp, with the required information completed, in the exact form as follows:

(SAMPLE STAMP)
(PROJECT)
(CONTRACT NUMBER)
(CONTRACTOR)

DESCRIPTION: _____

SPECIFICATION SECTION: _____

ORIGINAL SUBMITTAL NO. [ ] RE-SUBMITTAL NO. [ ]

[Contractor's Name] certifies that the submittal has been reviewed and approved for compliance with the Contract Documents and the field measurements have been verified.

4. Stamp Space on Submittals: Provide a 3-inch by 6-inch blank space (minimum) for the Engineer's review stamp on the cover sheet or top page of each submittal. Acceptance of submittals by the Engineer will be general and shall not relieve

Contractor from responsibility for proper fitting and construction of work, or from furnishing materials and work required by Contract, which may not be indicated on submittals. Do not commence work until the District has approved required submittals.

E Certificates of Compliance

1. A Certificate of Compliance shall be furnished prior to the use of any materials for which Technical Specifications specify. In addition, when so authorized in this Section, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material of the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the Specifications. A certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the certificate.
2. All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the Work which conforms to the requirements of the Contract Documents and any such material not conforming to such requirements will be subject to rejection whether in place or not.
3. The District reserves the right to refuse to permit the use of materials on the basis of a Certificate of Compliance. Certificates of Compliance shall be issued on a company letterhead from the Supplier with specific reference to this project.

F Record Drawings

1. The Contractor shall maintain a record set of full-size project Drawings upon which all field changes are recorded on a daily basis. As a condition of final acceptance of the project by the District, this record set of project Drawings with as-built changes shall be signed by the Contractor, shall be delivered to the Engineer within ten (10) calendar days after construction of Work, and shall be considered the property of the District.
2. The Contractor shall maintain a record set of full-size project Drawings upon which all field changes are recorded on a daily basis as described in the General Conditions, Article 5.3.8, “RECORD DRAWINGS”, and as required herein. As a condition of final acceptance of the project by the District, this record set of project Drawings with as-built changes shall be signed by the Contractor, shall be delivered to the Engineer within ten (10) calendar days after construction of Work, and shall be considered the property of the District.
3. Original data that is superseded shall be lined out and shall remain legible. Original figures shall not be eradicated, nor corrections be made over the item.

G Quality Assurance

1. Source Limitations: To the greatest extent possible for each unit of work, the Contractor shall provide products, materials, or equipment of a singular generic kind from a single source.
2. Compatibility of Options: Where more than one (1) choice is available as options for Contractor's selection of a product, material, or equipment, the Contractor shall select an option, which is compatible with other products, materials, or equipment already selected. Compatibility is a basic general requirement of product/material selections.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 33 00

SECTION 01 35 23
OWNER SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A This section describes the owner safety requirements that may affect the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications or any regulations, codes, certifications, notices, etc. that may be required by jurisdictions that have authority over the Work.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 31 19 - PROJECT MEETINGS
2. SECTION 01 33 00 - SUBMITTAL PROCEDURES
3. SECTION 01 50 13 - TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

B Abbreviations:

1. California Occupational Safety & Health Administration (Cal/OSHA)
2. Safety Data Sheet (SDS)
3. Code of Federal Regulations (CFR)
4. California Department of Transportation (CALTRANS)

1.3 PUBLIC HEALTH, SAFETY AND CONVENIENCE

A Conformance: All occupational safety and health standards, public convenience and public safety, through contractor operation areas including construction zones, shall conform to the provisions in Sections 7-1.02K(6) “Occupational Safety and Health Standards”, 7-1.03 “Public Convenience”, and 7-1.04 “Public Safety” of the 2015 CALTRANS Standards Specifications

B Precedent: This subsection in no way will change the precedent set forth in accordance with the provisions in Article 5.5, “PROTECTION OF PERSON AND PROPERTY” of the General Conditions of these Specifications.

1.4 WORKPLACE SAFETY

A The Contractor shall conform to Labor Code Section 6400 to provide a safe workplace for the Contractor’s personnel. The Contractor shall comply with OSHA and multiple CAL/OSHA requirements. Attention is directed to Title 8, Group 1, Section 3203, “Injury and Illness Prevention Program” (IIPP) of the General Industry Safety Orders. The Contractor shall submit an IIPP including a Fall Protection Plan, Hot Work Permit, a Safety Data Sheet (SDS), and ear protection for Engineer’s review and approval. No work shall be allowed at the site until the IIPP is approved. The IIPP shall be prepared

by a qualified person and developed specifically for the site where work is being performed.

1. Fall Protection
    a. The Contractor shall comply with OSHA and multiple Cal/OSHA requirements for worker fall protection. In general, the Contractor shall ensure that each worker, employee, and subcontractor walking/working with an unprotected side or edge that is six feet of more above a lower level shall be protected from falling by the use of a guardrail system, safety net system, or personal fall arrest system. The following shall be included in the Fall Protection Plan:
        1) Name of person or persons who shall be responsible for implementing the Fall Protection Program
        2) Methods and procedures for fall protection
        3) Communication procedures to report potential fall hazards
        4) Applicable structural design of Fall Protection methods shall be prepared and stamped by a registered civil engineer in the State of California
        5) Log of inspection schedule shall be signed by person(s) responsible for implementing Fall Protection Program
2. Lockout/Tag-out Program
    a. The Contractor shall comply with OSHA CCR, Title 8, Group 2, Section 3314 - “The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment”, including Lockout/Tag-out that includes safety work procedure for electrical equipment. The Contractor shall take action regarding the District Lockout/Tag-out Program of **EXHIBIT C.**
3. Hazard Communications
    a. Materials that contain hazardous substances or mixtures may be required on the Work Site. A Safety Data Sheet (SDS) as described in Section 5194 of the California Code of Regulations shall be provided by the Contractor from the manufacturer of any hazardous products used.
    b. Material usage shall be accomplished with strict adherence to California Division of Industrial Safety Requirements and all manufacturer warnings and application instructions listed on the Safety Data Sheet and on the product container label.
    c. Contractor shall notify, in advance, the Engineer and occupant(s) about any chemicals used in or surrounding the construction area. Included in the notification shall be the hazards, health effects, and precautions. Safety Data Sheet sheets shall be available for occupant(s) inspection.

d. Contractor shall take all reasonable precautions to minimize the escape, migration, and infiltration of products requiring a Safety Data Sheet (SDS) outside of the immediate construction areas.

e. Occupants in or surrounding the construction area, including contractor's employees and those who cannot evacuate, shall be furnished with personal protective equipment.

f. In addition, the Contractor shall conform to Part 29 CFR, Section 1926.500, Subpart M, and all applicable appendices. The Engineer shall have the right to withhold progress payments for any work until a satisfactory IIPP is submitted to the Engineer.

4. Ear Protection

a. Noise levels at the project site may exceed 85 decibels (dB). When required by Section 5096(b) of the General Industry Safety Orders, ear protection shall be provided to the employee by the Contractor and the Contractor shall require employees to wear ear protection.

5. Safety Protection Requirements for the Work

a. The workers shall have the basic protection safety glasses, hearing protection, leather gloves, etc.

b. When working near water without a rail to prevent workers falling, the workers must wear a life vest. The Contractor shall comply with OSHA Regulations (Standards – 29 CFR), Part 1917 – Marine Terminals; 1917.112(b) – Guarding of Edges; and CAL-OSHA Subchapter 4 – Construction Safety Orders and Article 13 – Work Over or Near Water for Construction Requirement.

6. Site Protection

a. At the end of the working day and any non-working time, the Contractor shall install a temporary fence or barrier along the perimeter of the work area to prevent persons and equipment from entering the work area.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 35 23

SECTION 01 41 00
REGULATORY REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A This section describes the regulatory requirements and construction restraints that may affect the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications or in the codes, regulations, notices, etc., of regulatory agencies that may have jurisdiction over the Work.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 13 00 - SUPPLEMENTARY REQUIREMENTS
2. SECTION 01 57 19 - TEMPORARY ENVIRONMENTAL CONTROLS
3. SECTION 01 57 23 - TEMPORARY STORM WATER POLLUTION CONTROL

1.3 CONTRACTOR'S LICENSE REQUIREMENT

A The Contractor's License Requirement for this Contract is a California State Contractor's License, General Contractor Class A License.

1.4 APPROVALS, PERMITS, AND FEES

A Temporary Utilities: All temporary utility services costs, including, without limitation, connection fees and charges during the construction period, shall be at Contractor's expense, and full compensation for all temporary utility services and related costs (including those costs for construction offices) shall be included in the Contract prices for the appropriate related bid items, and no separate payment or reimbursement will be made therefor.

B Incidental Permits: Contractor shall also obtain all other permits incidental to the Work, or made necessary by its operation, including but not limited to, those permits required for night work, overload, demolition, disposal, environmental and equipment, and shall pay all fees and costs incurred for an by the permit requirements. Contractor shall not be entitled to reimbursements from the District for said fees and costs unless reimbursement is specifically identified in the Contract Documents.

1.5 WATER CONSERVATION

A Construction Water Conservation: Attention is directed to these Specifications, which require the use of water for the construction of this project. Attention is also directed to state and local ordinances regarding water conservation and storm water pollution prevention.

B Equipment Maintenance: The Contractor shall, whenever possible, and not in conflict with the Specifications and ordinances, minimize the use of water during construction of the project. Watering equipment, hose, piping and valves shall be kept in good working

order; water leaks shall be repaired promptly; and washing of equipment, except when necessary for safety or for the protection of the equipment, shall be discouraged. Wash water from such activities shall not be discharged into the storm water conveyance system.

1.6 STORM WATER MANAGEMENT

A Construction BMPs Plan: Construction activity subject to the NPDES General Permit requires development and implementation of a Construction Best Management Practices (BMPs) Plan. Refer to SECTION 01 57 23 - TEMPORARY STORM WATER POLLUTION CONTROL for applicable storm water requirements.

B Construction BMPs Plan Submittal: Contractor shall submit the Construction BMP Plan as soon as possible but no later than the time identified in “Pre-construction Conference Submittal” of SECTION 01 31 19 - PROJECT MEETINGS. Time is needed to allow for staff review and approval prior to the anticipated start of on-site work.

C Construction Start Date Requirements: Construction cannot be initiated until the Construction BMPs Plan has been approved by District Environmental Services. Subsequent modifications and amendments to the Construction BMPs Plan are subject to the review and approval of District Construction Support or District Environmental Services and accepted by the Engineer.

1.7 ARMY CORPS OF ENGINEERS REGIONAL GENERAL PERMIT (EXHIBIT D)

A The District is in the process of obtaining a U.S. Army Corps of Engineers (ACOE) Permit for this project.

B The Contractor shall comply with the terms and conditions in the attached permit.

C The Contractor shall be responsible for all legal fees, fines and penalties assessed due to Contractor’s failure to fully comply with the requirements of the ACOE Permit.

1.8 WORKER’S COMPENSATION INSURANCE PURSUANT TO THE U.S. LONGSHORE AND HARBOR WORKERS ACT

A Before commencement of the Work, the Contractor and subcontractors shall provide a certificate of insurance that it has obtained for the period of the Contract, Worker’s Compensation Insurance as required by the U.S. Longshore and Harbor Workers Act, for all persons whom it employs or may employ in the performance of work subject to the cited Act.

1.9 MATERIAL DISPOSAL SITES

A All materials shall be disposed of at authorized sites to receive the material, subject to District approval, outside District Tidelands in compliance with all federal, state, and local regulations. Removal and disposal operations shall be done in a manner that will prevent spillage on street and nearby areas outside the project site. Contractor shall submit documentation, if requested, to demonstrate the disposal site is in compliance with all federal, state, and local regulations.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 41 00

SECTION 01 42 00
REFERENCE STANDARDS

PART 1 GENERAL

1.1 SUMMARY

A This section describes the reference standards that may affect the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications or any regulations, codes, certifications, notices, etc. that may be required by jurisdictions that have authority over the Work.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.3 REFERENCES TO STANDARDS, CODES AND RULES

A Other Publications: Where references are made in these Specifications to other publications, such publications shall be the latest issue available on the bid date of this Specification, except that the Standard Specifications for Public Works Construction (SSPWC) shall be the latest issue adopted by the City of San Diego, complete with the City of San Diego Standard Special Provisions adopted at the same time and the California Building Code (CBC) adopted by the City of San Diego, including CBC revisions adopted therewith. All specified portions of referenced publications shall be a part of these Specifications as though quoted in their entirety herein, except that all measurement and payment clauses included in any references are suspended by the provisions of these Specifications. Any reference to a controlling authority in any referenced portion shall be considered to mean the Engineer of the District.

B Associations: To the extent specified elsewhere in these Contract Documents, comply with the requirements of the following standards and associations.

1. AISC - American Institute of Steel Construction

   One East Wacker Drive, Suite 1300
   Chicago, IL 60601-2001
   (312) 670-2400

2. AISI - American Iron and Steel Institute

   1101 17th Street, N.W.
   Washington, DC 20036-4700
   (202) 452-7100

3. ANSI - American National Standards Institute

   11 West 42nd Street
   New York, NY 10036
   (212) 642-4900

4. ASCE - American Society of Civil Engineers

1015 15th Street, N.W., Suite 600
Washington, DC 20005
(202) 705-7496

5. ASTM - American Society for Testing Materials

1916 Race Street
Philadelphia, PA 19103-1187
(215) 299-5400

6. AWS - American Welding Society

550 LeJeune Road, N.W.
P.O. Box 35140
Miami, FL 33135
(305) 443-9353

7. CRSI - Concrete Reinforcing Steel Institute

933 Plum Grove Road
Schaumburg, IL 60173
(708) 517-1200

8. CRF - Code of Federal Regulations

US Government Publishing Office
732 North Capitol Street, NW
Washington, DC 20401
(202) 512-1800

9. CSI - Construction Specifications Institute

601 Madison Street
Alexandria, VA 22314-1791
(703) 684-0300

10. DBW - Environmental Testing Laboratories

P.O. Box 2040, Route 11, Industrial Park
Cortland, NY 13045
(607) 753-6711

11. DOE - United States Department of Energy

1000 Independence Ave. SW
Washington, DC 20585
(202) 586-5000

12. EPA - United States Environmental Protection Agency (EPA) – National Pollutant Discharge Eliminations System (NPDES)

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(Federal Register September 9, 1992) Vol-57, No. 175

13. IEEE - Institute of Electrical and Electronics Engineers
    345 East 47th Street
    New York, NY 10017
    (212) 705-7900
14. IES - Illumination Engineers Society of North America
    120 Wall Street
    New York, NY 10005
    (212) 248-5000
15. ISO - International Organization for Standardization
    ISO Central Secretariat
    1214 Vernier, Geneva Switzerland
16. MFMA - Metal Framing Manufacturers Association, Inc.
    330 N. Wabash Avenue
    Chicago, IL 60611
    (312) 644-6610
17. MSS - Manufacturer's Standardization Society of the Valve and Fitting Industry
    127 Park Street, N.E.
    Vienna, VA 22180
    (703) 281-6613
18. NECA - National Electrical Contractors Association
    3 Bethesda, Metro Center, Suite 1100
    Bethesda, MD 20814
    (301) 657-3110
19. NEMA - National Electrical Manufacturers' Association
    2101 L Street, N.W.
    Washington, DC 20037
    (202) 457-8400
20. NETA - International Electrical Testing Association
    P.O. Box 687
    Morrison, CO 80465
    (303) 467-0520
21. NFPA - National Fire Protection Association
    National Fire Codes
    One Batterymarch Park

P.O. Box 1901
Quincy, MA 02269
(617) 770-3000; (800) 344-3555

a. OSHA - Occupational Safety and Health Association
S. Department of Labor Publications
200 Constitution Avenue, N.W.
Washington, DC 20210
(202) 219-4667

22. SEI - SEI/ASCE - Structural Engineering Institue/American Society of Civil Engineers; See ASCE

23. UL - Underwriters' Laboratories, Inc.
UL Directories
333 Pfingston Road
Northbrook, IL 60062
(708) 272-8800

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 42 00

SECTION 01 45 00
QUALITY CONTROL

PART 1 GENERAL

1.1 SUMMARY

A This section describes the quality control and inspection requirements that may affect the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 33 00 - SUBMITTAL PROCEDURES
2. SECTION 01 42 00 - REFERENCE STANDARDS

1.3 OBSERVATION AND SUPERVISION

A Engineer Access: The Engineer or his appointed representative will review the Work and the Contractor shall provide facilities and access to the Work at all times as required to facilitate this review.

B Responsibility for the Work: The Contractor shall be solely responsible to supervise and direct the entire Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to complete the Work in accordance with the Contract Documents. The Contractor shall be solely responsible for the means, methods, techniques, sequences, quality control, and procedures of construction and safety precautions and programs incidental thereto. The foregoing includes work performed by the Contractor's subcontractors. The Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents.

C Contractor's Representative: The Contractor shall designate in writing and keep on the Work site at all times during its progress a technically qualified, English-speaking superintendent, who shall not be replaced without written acceptance of the Engineer. The superintendent shall be the Contractor's representative at the job site and shall have authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor.

D Superintendent Availability: The Contractor's superintendent shall be present at the site of the Work at all times while work is in progress. The superintendent shall be available 24 hours a day, seven (7) days a week for communication with the District, and be able to meet at the project site within four (4) hours of request by the District outside of scheduled working hours. Failure to observe this requirement shall be considered as suspension of the Work by the Contractor until such time as such superintendent is again present at the site.

1.4 RESPONSIBILITY

A Quality Assurance Testing: The Engineer may conduct periodic independent quality assurance testing and inspection to verify compliance with the Contract Documents.

B Retesting Costs: The District reserves the right to back charge the Contractor for retesting of deficient or defective work or products upon written notification. Compensation for retesting on behalf of the District will be made through deductions from the Contract Amount.

C Defective Work Corrections: The Contractor is responsible for correcting all defective work discovered prior to final acceptance of the Contract, despite the failure of the Inspector(s) to previously discover it.

1.5 TESTS AND INSPECTIONS

A Scheduling: Contractor shall be responsible for notifying district 48 hours prior to required tests.

B Contractor Quality Control Testing Costs: Contractor shall pay for any testing performed by the Contractor for his own quality control.

C Submittals-Agency or Laboratory Reports: Two (2) copies of the agency or laboratory report of each test or inspection identified in the Contract Documents shall be submitted to the Engineer. All tests of materials shall be made in accordance with the commonly recognized standards of national technical organizations, and such other special methods and tests as are prescribed in the Contract Documents.

D Submittals-Contractor Purchases: One (1) copy of each of the Contractor's purchase for materials forming a portion of the Work shall be submitted to the Engineer, if requested. Each such purchase order shall contain a statement that the materials included in the order are subject to inspection by the District. Materials purchased locally will be inspected at the point of manufacture or supply, and materials supplied from points outside the San Diego Area will be inspected upon arrival at the job, except when other inspection requirements are provided for specific materials in other Sections of this Specification.

E Submittals-Samples of Materials: The Contractor shall submit such samples of materials as are required by the Engineer, without charge. No material shall be used until the Engineer has had the opportunity to test, examine, and approve such materials. Samples will be secured and tested whenever necessary to determine the quality of the material. Samples and test specimens prepared at the job site, such as concrete test cylinders, shall be taken or prepared by the Engineer in the presence and with the assistance of the Contractor.

1.6 AUTHORITY AND DUTIES OF INSPECTOR

A Inspectors employed by the District shall be authorized to inspect all work done and materials and equipment furnished to complement the contractor furnished independent inspector.

B Such inspection may extend to all or any part of the Work, and to the preparation, fabrication, or manufacture of the materials and equipment to be used.

C The Inspector shall not alter or waive the provisions of the Contract Documents.

D The Inspector will keep the Engineer informed as to the progress of the Work and the manner in which it is being done.

E The Inspector will call the Contractor's attention to nonconformance with the Contract Documents that the Inspector may have observed.

F The Inspector will not be responsible for the adequacy or correctness of the Contractor's means, methods, techniques, sequences, or procedures for construction.

G The Inspector will not approve or accept any portion of the Work, issue instructions contrary to the Contract Documents, or act as foreman for construction.

H The Inspector may reject defective materials, equipment, or work when it is not in compliance with the Contract Documents.

I The Inspector will not be responsible for:

1. The Contractor's quality control program
2. The Contractor's safety program
3. Coordinating the work or activities of the Contractor or his subcontractor

J The Contractor shall provide safe access to the Work for the Inspector to perform his/her duties.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 45 00

SECTION 01 50 13
TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

PART 1 - GENERAL

1.1 SUMMARY

A This section describes the temporary construction facilities and utilities that may apply to the Work. These requirements and constraints are in the addition to those appearing elsewhere in the Specifications or any regulations, codes, certifications, notices, etc. that may be required by the jurisdiction that have authority over the Work.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this section. Refer to:

1. SECTION 01 35 23 - OWNER SAFETY REQUIREMENTS
2. SECTION 01 57 19 - TEMPORARY ENVIRONMENTAL CONTROLS
3. SECTION 01 57 23 - TEMPORARY STORM WATER POLLUTION CONTROL

1.3 SUBMITTALS

A Whenever required by safety regulations, the Contractor shall submit design calculations for staging and shoring prior to application of loads.

1.4 CONTRACTOR'S STAGING AREA

A Materials and Equipment Storage: Contractor shall limit the location of his storage of equipment and materials to the staging area(s) as directed by the Engineer. Contractor shall make his own arrangements for additional space that may be required and shall bear all associated costs. All stockpiles, materials, vehicles, and equipment shall be stored at the Contractor's equipment and stockpile area or removed from the site at the end of each calendar day for the duration of this project. No stockpiling of construction-related materials or debris storage is permitted on the pier or the public park at the pier entrance.

1.5 PROJECT SECURITY

A Storage - General: The Contractor shall provide any temporary storage required for the protection of equipment and materials as recommended by manufacturers of such materials.

B Storage Security: The Contractor shall provide its own security for its equipment and materials at its own expense. Subject to approval of the Engineer as to location and type of fencing, Contractor shall erect a fence around the equipment and stockpile area; however, Contractor shall repair or restore all surfaces, including pavement and planted areas, to the same condition as existed before

C Protection of the Work: The Contractor shall make adequate provision for the protection of the Work areas against fire, theft, and vandalism and for the protection of the public

and District forces against exposure to injury, and for the security of any off-site storage areas. All costs for this protection shall be included within the Contractor's bid.

D Graffiti Removal: The Contractor shall be responsible to remove or cover up any graffiti or other markings that are not necessary for the execution of the Work.

1.6 TEMPORARY UTILITIES

A Use of District Utilities Prohibited: The Contractor shall provide and pay for all necessary temporary telephones, fuel, power, potable water, sanitary and proper toilet accommodations. Contractor shall not use District owned utilities, unless use of such utilities is allowed elsewhere in the contract documents.

1.7 TEMPORARY LIGHTING

A The Contractor shall provide temporary lighting in all work areas sufficient to maintain a lighting level during working hours not less than lighting levels required by CAL/OSHA standards.

1.8 TEMPORARY CONSTRUCTION SIGN (EXHIBIT B)

A Furnish and install construction sign per details as shown on referenced Exhibit. The exact location of the sign shall be determined in the field by an Engineer. The District will furnish a Port District logo to the Contractor at the Pre-Construction Conference. The Port District logo shall be returned to the Engineer upon completion of the sign installation. The sign and its supports shall be removed at the project completion. The areas surrounding the sign shall be restored as it existed prior to sign installation or as shown in the contract documents.

1.9 PROJECT SAFETY

A The temporary facilities to be provided by the Contractor, as described above, shall conform to all requirements in regard to operation, safety, and fire hazards of Federal, State, local authorities and of Underwriters.

1.10 REMOVAL OF TEMPORARY FACILITIES AND UTILITIES

A Notification to Engineer: At such time or times as any temporary construction, facilities and utilities are no longer required for the Work, the Contractor shall notify the Engineer of his intent and schedule for removal of the temporary facilities and utilities, and obtain the Engineer's approval before removing the same. As approved, the Contractor shall remove the temporary facilities and utilities from the site as his property and leave the site in such condition as specified, as directed by the Engineer, and/or as shown on the Drawings.

B Restore Unfinished Areas: Contractor shall return the site and facilities to their original "as found" or better condition, unless otherwise specified in the Contract Documents, at the completion of the Project. In unfinished areas, the condition of the site shall be left in a condition that will restore original drainage, evenly graded, seeded or planted as necessary, and left with an appearance equal to, or better than original.

C Existing Improvements: Contractor shall return the site and facilities to their original “as found” or better condition, unless otherwise specified in the Contract Documents, at the completion of the Project.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 50 13

SECTION 01 57 19
TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 GENERAL

1.1 SUMMARY

A This section describes the temporary environmental controls requirements that may affect the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications or any codes, certifications, notices, etc. that may be required by jurisdictions that have authority over the Work.

1.2 RELATED REQUIREMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. GENERAL CONDITIONS, ARTICLE 5.3.15 - TRENCHES OR OTHER EXCAVATIONS AND HAZARDOUS OR CONTAMINATED CONDITIONS

1.3 POTENTIAL CONTAMINATION

A Disclosure Statement: Contamination may include, but is not limited to, petroleum hydrocarbons, poly-nuclear aromatic hydrocarbons, polychlorinated biphenyls, heavy metals, asbestos-containing materials, lead-containing surfaces, and other hazardous substances. This statement serves as District disclosure of the potential for such contamination and in doing so, the protection and well-being of Contractor and subcontractor personnel health and safety is the sole responsibility of Contractor per Title 29 Code of Federal Regulations (CFR) part 1910.120.

B Submittal: Prior to the award of the Contract, the Contractor shall sign the NOTIFICATION REGARDING ENVIRONMENTAL CONDITIONS attached as **EXHIBIT A**, at the end of these Specifications. Such statement shall be a part of these Specifications.

1.4 HAZARDOUS WASTE

A Notifications: During the course of the Work if Contractor discovers, at any location or any depth on the project site, any contaminated or uncontained materials or objects which appears to be or to contain hazardous wastes, Contractor shall not move or disturb said materials or objects and shall immediately notify the Engineer orally thereof and then by written report within three (3) days. Included in the written report shall be a brief description of what was discovered, the location, odor, texture and any other circumstances or physical characteristics which may assist the Engineer in evaluating the site conditions. Under no circumstances shall the Contractor disturb or remove any such materials or objects until after written direction has been received from the Engineer.

1.5 SOUND CONTROL

A Compliance with Local Regulations: The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances that apply to any work

performed pursuant to the Contract. Each internal combustion engine, used for any purpose for the Work or related to the Work, shall be equipped with a muffler of a type recommended by the manufacturer, so as to produce a maximum noise level of 85 dBA at five (5) feet. No internal combustion engine shall be operated at the work site without said muffler.

B Minimize Noise: Operations shall be performed in a manner to minimize unnecessary noise generation.

C Other Contract Specifications: The Contractor shall comply with all other sound control measures specified in the contract documents.

1.6 WASTE REMOVAL

A Daily: The Contractor shall contain, sweep, and properly dispose of debris on a daily basis.

B Recycling: The Contractor shall recycle or dispose of surplus materials, waste products, and debris and shall make necessary arrangements for such recycling or disposal. The Contractor shall obtain written permission from property owner prior to disposing surplus materials, waste products, or debris on private property. A copy of the written permission shall be furnished to the District.

C Regulations: All waste disposals shall be in accordance with applicable Federal, State, and local laws and regulations, and District requirements.

D Landfill Requirements: If the Contractor proposes to dispose of construction debris, trench spoils, excavation spoils, etc., at a landfill, he shall be responsible to provide and pay for all permits and analyses required by the landfill.

E Prohibitions: Ditches, washes, or drainage ways shall not be filled.

F Disposal Site Maintenance: Disposal operations shall no create unsightly or unsanitary nuisances.

G Site Condition: The Contractor shall maintain the disposal site in a condition of good appearance and safety during the construction period.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 57 19

SECTION 01 57 23
TEMPORARY STORM WATER POLLUTION CONTROL

(LESS THAN ONE ACRE OF DISTRIBUTED SOIL) - CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) PLAN REQUIRED

PART 1 GENERAL

1.1 SUMMARY

A This section describes the temporary storm water pollution control requirements for construction sites less than one acre that may affect the Work. These requirements and constraints are in addition to those appearing elsewhere in the Specifications or any regulations, codes, certifications, notices, etc. that may be required by jurisdictions that have authority over the Work.

1.2 RELATED SECTIONS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. Refer to:

1. SECTION 01 13 00 - SUPPLEMENTARY REQUIREMENTS
2. SECTION 01 27 00 - MEASUREMENT AND PAYMENT
3. SECTION 01 33 00 - SUBMITTAL PROCEDURES
4. SECTION 01 41 00 - REGULATORY REQUIREMENTS
5. SECTION 01 50 13 - TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES
6. SECTION 01 57 19 - TEMPORARY ENVIRONMENTAL CONTROLS

B The Work includes preparing a Construction BMP Plan and implementation and maintenance of storm water pollution prevention Best Management Practices (BMPs) required to control discharges to the storm water conveyance system or direct discharges to the San Diego Bay from construction activities as shown on the Contract Drawings and as specified in these Special Provisions.

C The BMPs shall apply to all construction related areas and activities associated with the Project, such as staging areas, equipment and material storage sites, waste management areas, temporary plant sites, and borrow pit operations, which may be outside the construction limits and shall remain and be maintained through the completion of all punch list items.

1.3 SUBMITTALS

A Contractor shall submit the following in accordance with SECTION 01 33 00, “Submittal Procedures’ and SECTION 01 31 19, “Project Meetings”:

1. Contractor’s Construction BMP Plan for Disturbances of Less than One Acre.
2. Contractor’s Construction BMP Plan Amendments
3. End of Project Storm Water Compliance Report with copies of inspection reports.

1.4 REFERENCES

A The publications and guidance listed below form a part of these Specifications to the extent referenced. These items are referred to in the text by the basic designation only.

1. Port of San Diego Stormwater Management webpage, https://www.portofsandiego.org/stormwater-management - Port of San Diego specific templates and guidance on preparation of Construction BMP Plan. All projects requiring construction phase stormwater BMPs must use District templates unless otherwise approved by the Engineer and District Environmental Protection Department.
2. State Water Resources Control Board Construction Stormwater Program webpage, https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html. -Supplemental guidance on preparation of a California NPDES Construction Activities Storm Water General Permit SWPPP (General Construction Storm Water Permit),
3. Caltrans Storm Water and Water Pollution Control webpage, https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/manuals-and-handbooks – BMP guidance and details are available in the Caltrans Storm Water Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual. Guidance is also provided for construction storm water monitoring,

1.5 REGULATIONS

A Comply with all applicable federal, state, and local regulations, including but not limited to air, water, environmental, transport and disposal regulations. Specific regulations applicable to discharges to the storm water conveyance system for this Project include the following:

1. State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) No. CAS000002 - General Permit for Storm Water Discharges Associated with Construction and Land Disturbing Activities (General Construction Storm Water Permit) as amended, and/or modified.
2. Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, National Pollutant Discharge Elimination System (NPDES) No. CAS0109266 - Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, and the San Diego Unified Port District (Municipal Storm Water Permit) as amended, and/or modified.
3. Regional Water Quality Control Board (RWQCB) Order No. R9-2015-0013, National Pollutant Discharge Elimination System (NPDES) No. CAS919003 - General Waste Discharge Requirements for Discharges (WDRs) for Groundwater

Extraction Discharges to Surface Waters within the San Diego Region. as amended, and/or modified.

4. Port of San Diego Jurisdictional Urban Runoff Management Program, Construction Component Chapter 5, https://pantheonstorage.blob.core.windows.net/environment/JRMP-January-2020-Complete-Document-and-Appendices.pdf.

1.6 BEST MANAGEMENT PRACTICES

A Best Management Practices: All construction activities shall be evaluated by the Contractor for their potential to impact storm water quality. Adequate BMPs shall be identified and implemented to control the potential impacts. The BMPs shall include effective erosion and sediment controls, non-storm water management controls, material and waste management controls, and temporary impermeable canopy BMPs.

B Guidance for use of working details for BMPs are described in the publications listed above. The Contractor shall implement and maintain the BMPs as appropriate.

C The Contractor, with the approval of the Engineer, shall modify the working details, as necessary, to adapt the BMPs for site conditions to meet the pollution control objectives. There shall be no additional costs to the District resulting from modification of selected BMPs used by the Contractor to achieve the pollution prevention objectives.

D General BMP requirements include the following:

1. No discharges of any material may enter the storm drain system including wash water, dust, petroleum products, soil, or debris. The Contractor must immediately remove any such material that inadvertently enters the storm drain system of the receiving water body.

2. If any contractor activity could potentially release materials to the storm drain system, appropriate protection of the storm drain system shall be implemented as described in the Caltrans Storm Water Quality Handbook – Construction Contractor's Guide and Specifications (https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/manuals-and-handbooks) or US EPA's Preliminary Data Summary of Urban Storm Water Best Management Practices (EPA-821-R-99-012, August 1999). Storm drain protection may include storm drain barriers of filtration systems. **Note: Sand bags are not appropriate for activities lasting more than 7 days**.

3. Any materials being stored which could release constituents by wind or runoff transport shall be protected by overhead cover, secondary containment, tarpaulins, or other appropriate methods.

4. Contractor shall ensure all stockpiles are covered daily throughout the term of the contract. All dirt and/or debris transport onto paved surfaces shall be removed at the end of each workday

5. Any fuel products, lubricating fluids, grease or other products and/or waste released from the Contractor's vehicles or equipment shall be collected and disposed of immediately, in accordance with state, Federal, and local laws.
6. Any pavement cutting activity that generates cutting waste shall be collected/vacuumed and properly disposed of.
7. All job site waste materials will be properly disposed of at the completion of Work, including unsalvageable materials that may have used is in the Storm Water Pollution Prevention Plan.
8. Contractor shall ensure that all employees are trained and provided with training on the nature and implementation of the special provisions outlined above. This training shall include identifying the location of the storm drains on the job site and highlighting the proximity of the bay and the direct connection between the storm drain and the bay.

PART 2 PRODUCTS

2.1 GENERAL

A Materials shall be as shown and specified in the references listed in this Section.

B The Contractor shall have adequate materials on site to quickly deploy BMPs to protect the exposed portions of the site and to prevent sediment and pollutant discharges from the site.

PART 3 EXECUTION

3.1 GENERAL

A The regulations listed in this Section prohibit degradation of water quality and require prevention or control of discharges from construction sites and construction activities for all District projects.

B The Contractor shall implement appropriate BMPs to prevent and/or control potential discharges and to protect the storm water conveyance system from any and all activities with the potential to release materials directly or indirectly into the storm water conveyance system.

C If a selected BMP fails, it shall be repaired and modified, if necessary, or replaced with an acceptable alternate as soon as it is safe to do so.

D Qualifications of the Contractor's Storm Water Representative/Inspector: Contractor is to have a designated Water Pollution Control Manager (WPCM) to oversee, document, and maintain all storm water compliance at the site. The WPCM is responsible for non-storm water and storm water visual observations. The WPCM must have authority to implement and make field decisions to maintain compliance with the approved Construction BMP Plan.

E Routine storm water inspections are to be carried out by the WPCM as required by the approved Construction BMP Plan. The site is to be inspected and BMPs are to be evaluated at least weekly and before, during and after a rain event. Required inspections

are to be carried out for the duration of the project and through completion of punch list activities. The scheduled inspections are to be documented and inspection reports are to be maintained on the site.

F The Contractor is required to submit a complete copy of the approved and implemented Construction BMP Plan and any amendments along with the inspection reports at Project Completion.

3.2 AUTHORITY OF THE ENGINEER AND DISTRICT STAFF

A The Engineer and the District Environmental Protection Department have the authority to require BMPs to be installed or maintained by the Contractor at any time and to stop or delay work that could result in pollutant transport, until such time as the Contractor provides adequate BMP protection.

3.3 UNAUTHORIZED DISCHARGES

A No discharges of any material may enter the storm water conveyance system including process and wash waters, dust, petroleum products, soil or debris. The rinsing of paint or cementitious products into storm drains is prohibited. The Contractor shall be responsible for cleanup, mitigation, and penalties resulting from failure to implement and maintain appropriate BMPs for pollution prevention.

3.4 NOTIFICATION

A The Contractor shall notify the Engineer immediately of any unauthorized releases to the storm drain. The Contractor shall immediately document all unauthorized releases including but not limited to the time, date, and duration, material released, and action taken to stop discharge and prevent future discharges. Documentation shall be provided to the Engineer.

3.5 CLEANUP

A All unsalvageable materials used in the BMP program shall be properly disposed of outside of the Tidelands at the completion of Work.

END OF SECTION 01 57 23

DIVISION 02 – EXISTING CONDITIONS

SECTION 02 41 20
DEMOLITION AND REMOVAL

PART 1 - GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all work of DEMOLITION AND REMOVAL REQUIREMENTS including removal of: timber decking; timber railing; and other miscellaneous existing improvements. DOCUMENTS AND PUBLICATIONS

B 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. Where these Special Provisions exceed the requirements of the publications listed below, the requirements of these Special Provisions shall govern.

1. American National Standards Institute (ANSI).
    a. ANSI A10.6, 2006 (R2016) Safety and Health Program Requirements for Demolition Operations.
2. California Code of Regulations (CCR).
    a. TITLE 17 CCR, Air Resources Board, Abrasive Blasting Regulations.
3. State of California Department of Transportation (CALTRANS).
    a. CALTRANS, 2018 Standard Specifications including all subsequent addenda thereto.

1.2 SUBMITTALS

A Provide submittals for the following in accordance with Section 5.3.4 of the GENERAL CONDITIONS and Section 01 33 00 SUBMITTALS of these Specifications.

B Demolition and Removal Plan. Submit proposed demolition and removal plan to the Engineer for approval before work is started. Include procedures for erection and maintenance of temporary scaffolding, timber decking removal method, timber railing removal method, coating removal, careful removal and disposition of materials to be disposed-of, and materials to be reinstalled. Indicate methods for temporary barricades and routing of pedestrian and vehicular traffic passing by areas of demolition and construction. Discuss coordination with other work in progress and public/tenant use of the facility. Provide a schedule for temporary disconnection of utility services. Indicate compliance with load limitations on the pier.

C Required Data. Demolition plan shall include procedures for careful removal and disposition of materials specified to be removed and description of methods and equipment to be used for each operation and the sequence of operations. Include drawings, sketches or specification sheets for temporary scaffolding systems or bridge snoopers. The Demolition Plan shall include procedures for demolition and/or removal of the following:

1. Timber decking (to be salvaged and reinstalled).
2. Timber sub-framing (blocking, etc.)
3. Timber railing.
4. Coating on steel members.

D Daily Reports. Prepare and maintain a Daily Report of Demolition and Debris Removal indicating extents, locations and operations. Furnish a copy thereof to the Engineer at the conclusion of each week's work. At a minimum, the Daily Report shall include date, period covered by the report, equipment used, description of activity as identified by pier grid-line, types and quantities of demolition materials removed each day and to-date, and other comments relative to the operations.

1.3 GENERAL REQUIREMENTS

A Do not begin demolition and removal work until authorization is received from the Engineer. Dispose of rubbish and debris generated at the site by Contractor operations outside District Tidelands on a daily basis, do not allow accumulation. Remove debris accumulated on temporary scaffolding systems (if used) as necessary to avoid loss of material during high tides. Dispose of preservative-treated timber material in a manner that complies with State of California and local municipal landfill requirements.

1.4 REGULATORY AND SAFETY REQUIREMENTS

A Comply with federal, state and local hauling and disposal regulations. In addition to the requirements of Section 5.0 GENERAL CONDITIONS, conform to all federal, state and local regulations and ANSI A10.6.

1.5 DUST AND DEBRIS CONTROL

A 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, which cause pollution to the Pacific Ocean. Discharges to the ocean are not permitted. Catch all dust and debris from cutting and drilling operations.

B Temporary Scaffolding System. Provide fixed scaffolding system intended to catch debris resulting from demolition. Scaffolding may be supported from existing piling or other suitable means. Floating pontoons may not be used. Provide several layers of plastic sheeting or other material for placement over scaffold flooring to collect falling debris. Remove cover sheeting and debris to prevent loss of material, but not less than once daily on working days.

1. Movable Under Pier Platform. A truck or trailer mounted under pier inspection / work platform (bridge snooper) that meets pier load limitations may be utilized in lieu of fixed scaffolding.

1.6 LOAD LIMITATIONS ON PIER

A Reference is made to load limitations on the pier as indicated on the Drawings and in these Technical Specifications. All demolition and construction activities shall be performed in such a manner so as to not exceed the indicated allowable loads.

B Stockpiling of Debris and Construction Materials. The Contractor shall not stockpile demolition debris or construction materials on the pier in excess of the indicated allowable loads. Because of the confined construction site, demolition materials shall be removed on a daily basis. Existing Improvements. Protect existing improvements to remain in-place.

1.7 PROTECTION

A Traffic Control Signs. Use traffic barricades with flashing lights where pedestrian and driver safety are endangered in the area of demolition and removal work. Notify the Engineer prior to beginning such work. Provide Traffic Control Plan and obtain approval from Engineer prior to commencement of work.

B Existing Improvements. Protect existing improvements to remain in place. Improvements damaged during construction shall be restored to the pre-construction condition. Restoration as specified in this section including repairing, replacing, reinstalling and reconstructing piping, conduits, framing or similar if altered as incidental to improvements required by this Contract. Restoration work shall be performed at no additional cost to the District. Restored work shall be subject to final approval by the Engineer.

C Facilities. Protect utility services including potable water system, sanitary sewer system, site electrical service and lighting. Where removal of existing utilities is specified or indicated, provide temporary services or connections for utilities.

D Guardrails. Where demolition and removal activities (removal of railing, removal of decking, or removal of ramp/stair-related equipment) require partial or total disconnection of pier guardrail system, provide temporary guardrail, or support the remaining guardrail to ensure equivalent level of protection to that of the existing guardrail system.

E Temporary Decking. Provide temporary means of entrance and egress over decking removal locations on an as-needed basis as directed by the Engineer.

1.8 BURNING AND BLASTING

A Burning and blasting will not be permitted.

1.9 RELOCATIONS

A Perform the removal and reinstallation of relocated items as indicated with workmen skilled in the trades involved. Replace damaged items with undamaged items as approved by the Engineer.

PART 2 - PRODUCTS

2.1 APPLICABLE REGULATIONS

A All products, materials and equipment used in demolition and removal, including hauling, disposing, salvaging and protecting existing improvements in place shall conform to all applicable federal, state and local regulations in accordance with the provisions of Section 01 41 00 REGULATORY REQUIREMENTS of these Specifications.

PART 3 - EXECUTION

3.1 EXISTING FACILITIES TO BE REMOVED

A Timber Decking. Carefully remove and salvage timber decking for placement of canopy columns as indicated in the Drawings. Decking shall be reinstalled with cutout around canopy column as indicated on the Drawings. Removal of decking and deck spikes shall be performed in such a manner so as to prevent splitting of supporting timber stringers or adjacent planks. The embedded spike shall be removed from the stringer, or cut flush with the top-of-stringer.

B Timber members damaged as a result of the demolition process shall be replaced at the Contractor's expense. Notify the Engineer when stringers are damaged.

C Removal of railings shall be performed in such a manner so as to maintain public safety. The railing to be removed shall be disconnected from the railing to remain in such a way that no damage is caused to the remaining railing. Provide temporary support during alteration of railing such that no component of the existing railing system is left unsupported. Exception – horizontal railing members can extend not more than 12-in. beyond an existing post where abutting cable railing installed under this Contract.

D Work shall be completed on railings such that a temporary railing is not required for more than a 72 hour period.

END OF SECTION 02 41 20

DIVISION 05 – METALS

SECTION 05 12 00
STRUCTURAL STEEL FRAMING

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all work of STRUCTURAL STEEL FRAMING, including: dimensional coordination; fabrication, galvanizing and erection of canopy framing, components, assemblies, hardware and anchorages; and miscellaneous items as shown on the Drawings and specified in these Technical Specifications.

B This Section includes requirements regarding the appearance and surface preparation of Architecturally Exposed Structural Steel (AESS).

1. AESS 2: Canopy structural steel framing.
2. AESS 3: Canopy structural steel columns.

1.2 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.3 DOCUMENTS AND PUBLICATIONS

A 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. Where these Technical Specifications exceed the requirements of the publications listed below, the requirements of these Technical Specifications shall govern.

B American Institute of Steel Construction, Inc. (AISC)/American National Standards Institute (ANSI)

1. AISC/ANSI 303 - Code of Standard Practice for Structural Steel Buildings and Bridges;2016.
2. AISC/ANSI 341 (including errata) – Seismic Provisions for Structural Steel Buildings; 2016.
3. AISC/ANSI 360 – Specifications for Structural Steel Buildings; 2016.

C American Society for Testing and Materials (ASTM International)

1. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.
2. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
3. ASTM A370 Standard Test Methods and Definitions for Mechanical Testing of Steel Products, 2021.

4. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2021a.
5. ASTM A780/A780M – Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings; 2020.
6. ASTM D6386 – Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting; 2022.
7. ASTM E94 - Standard Guide for Radiographic Examination; 2017.
8. ASTM E164 - Standard Practice for Contact Ultrasonic Testing of Weldments; 2019.
9. ASTM E165 - Standard Practice for Liquid Penetrant Testing for General Industry; 2018.
10. ASTM E709 - Standard Guide for Magnetic Particle Testing; 2021.

D American Welding Society (AWS)

1. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; American Welding Society; 2020.
2. AWS D1.1/D1.1M - Structural Welding Code - Steel; American Welding Society; 2020.
3. AWS D1.8/D1.8M - Structural Welding Code – Seismic Supplement; American Welding Society; 2016.

E California Building Code (CBC) / International Code Council (ICC)

1. California Building Code (CBC) 2019 edition.

F The Society for Protective Coatings (SSPC)

G Steel Structures Painting Manual (latest edition).

1. SSPC-SP2 – Surface Preparation Standard No. 2: Hand Tool Cleaning; 2018.
2. SSPC-SP3 – Surface Preparation Standard No. 3: Power Tool Cleaning; 2018.

1.4 DEFINITIONS

A Architecturally Exposed Structural Steel: Structural Steel conforming to one of the categories of Architecturally Exposed Structural Steel or AESS. Refer to ANSI/AISC 303-16 “Code of Standard Practice for Steel Buildings and Bridges”.

1. AESS 2: Structural Steel designated as “AESS 2” in the contract documents and conforming to ANSI/AISC 303-16, Chapter 10 definition of AESS 2. These are feature elements viewed at a distance greater than 20 ft. The art of metalworking is intended to be visible to the viewer.
2. AESS 3: Structural Steel designated as “AESS 3” in the contract documents and conforming to ANSI/AISC 303-16, Chapter 10 definition of AESS 3. These are feature elements viewed at a distance less than 20 ft. The art of metalworking is intended to be visible to the viewer.

1.5 SUBMITTALS

A Shop Drawings. Submit shop drawings including complete details and schedules for fabrication and shop assembly of members. Include details of cuts, connections, camber, holes, and other pertinent data. Provide erection documents clearly indicating which members are AESS members and the AESS category of each part. Indicate welds by AWS symbols, and show size, length, and type of weld. Provide setting drawings, templates, and directions for installation of anchor bolts and other anchorages. Identify details by reference to sheet and detail number on the Drawings.

B Quality Assurance Plan. Submit Quality Assurance Plan in accordance with AISC 341, Appendix Q. Outline inspection and nondestructive testing techniques and personnel.

C Product Data. Submit product data as follows:

1. Shop and Touch-up Primer.
2. Touch-up Primer for Galvanized Surfaces.

D Samples: Provide samples of specific AESS characteristics Samples may be small size samples or components of conventional structural steel demonstrating the following specific AESS characteristics.

1. Continuous weld appearance
2. Sharp edges ground smooth
3. Surface preparation
4. Fabrication mark removal
5. Weld show through

1.6 UNDER PIER SCAFFOLD METHOD

A Submit scaffold method for access to under deck work items. Include scaffold method for installation of canopy posts.

1. Movable Under Pier Platform. A truck or trailer mounted under pier inspection / work platform (bridge snooper) that meets pier load limitations may be utilized in lieu of fixed scaffolding.

1.7 LOAD LIMITATIONS ON PIER

A Reference is made to load limitations on the pier as indicated on the Drawings and in these Technical Specifications. All construction activities shall be performed in such a manner so as to not exceed the indicated allowable loads.

1.8 STATEMENTS

A Welding procedures and welder qualifications: A sample Welding Procedure Form is provided at the end of this Section. The Contractor shall complete and submit data as indicated in the form for each procedure.

1. AWS D1.1 or ICC certification. Prior to welding, submit certification for each welder stating the type of welding and positions qualified-for, the code and

procedure qualified under, date qualified, and the firm and individual certifying the qualification tests. If the qualification date of the welding operator is more than one year old, the welding operator's qualification certificate shall be accompanied by a current certificate by the welder attesting to the fact that he has been engaged in welding since the date of certification, with no break in welding service greater than six months.

B Manufacturer's Mill Certificates: Certify that products meet or exceed specified requirements. Submit certificates for the following:

1. Steel
2. Welding electrodes and rods.
3. CBC (ICC) Quality Certification

C Mill Test Reports: Bolts, nuts, and washers. Supply 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.

D Qualification data for firms and persons specified in the ‘Quality Assurance” Submittal to demonstrate their capabilities and experience. Include lists of completed projects names and address, names and addresses of architects and owners, and other information specified. [For each project, submit photographs showing detail of installed AESS.]

1.9 QUALITY ASSURANCE

A Fabrication and Erection.

1. Fabricator Qualifications: Engage an AISC Certified Fabricator experienced in fabricating AESS similar to that indicated for this Project with a record of successful in-service performance, as well as sufficient production capacity to fabricate AESS without delaying the Work.
2. Erector Qualifications: Engage an AISC Certified Erector experienced in erecting AESS work similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.
3. Pre-installation Conference: The General Contractor shall schedule and conduct conference at the project site to comply with requirements of Division 1 Section “Project Meetings.” As a minimum, the meeting shall include the General Contractor, Fabricator, Erector, the finish-painting subcontractor, and the Engineer. Coordinate requirements for shipping, special handling, storage, attachment of safety cables and temporary erection bracing, final coating, touch up painting, mock-up coordination, Engineer’s observations, and other requirements for AESS.
4. Perform all work in accordance with the applicable provisions of AISC 303, AISC 341, AISC 360 and AWS D1.1. Comply with Quality Assurance Plan in accordance with AISC 341, Appendix Q.

5. All structural steel, both in the shop and in field, shall be transported and handled and erected in such manner as will preclude any injury thereto and in no case shall the material be subjected to any undue stresses in any part of connection or member.

B Cooperation: Coordinate the work of this section with that of all other sections. Provide all punchings and drilling indicated on the drawings, or required for the attachment of other work to the structural steel framing for pipe and duct supports, anchors, aluminum sash, doors, siding, windows, frames and similar work. Provide necessary drilling and punching; accurately locate and arranged to receive and engage same.

C Field Measurements: Before starting work, perform needed demolition and secure all field measurements pertaining to or affecting the work of this section and verify the locations and exact position of all columns as previously stated herein. Field Measurements include verification of canopy column locations with respect to steel pile caps and timber stringers (below deck) and layout of canopy panels as specified in SECTION 05 50 00 ARCHITECTURAL METAL FABRICATIONS.

D Certification of Materials: Identify all structural steel by heat or melt number and accompany with mill analysis and test reports. Furnish evidence to the Engineer that the materials conform to the requirements of these specifications.

1.10 DELIVERY, STORAGE, AND HANDLING

A Deliver AESS to Project site in such quantities and at such times to ensure continuity of installation. All tie downs on loads shall be nylon straps or shall use softeners when using chains or wire rope slings to avoid damage to edges and surfaces of members. The standard for acceptance of delivered and erected members shall be equivalent to the standard employed at fabrication.

B Store materials to permit easy access for inspection and identification. Keep steel members off ground by using pallets, platforms, or other supports. Protect steel members and packaged materials from erosion and deterioration. Use special care in handling to prevent twisting or warping of AESS members.

C Handle finish pieces using nylon type slings, or chains with softeners, or wire ropes with softeners such that they are not damaged. Conform to ANSI/AISC 303-16 Sections 10.4, 10.5, and 10.6.

1.11 INSPECTION

A CBC (ICC) Certified Inspectors. A CBC (ICC) certified structural steel special inspector from the District's Consultant’s Testing Laboratory shall be present at all times during structural steel erection in accordance with the Special Provisions of these Specifications.

1. Out-of-state fabrication. It is assumed that steel will be fabricated within the State of California. All transportation costs and per diem living costs for inspection at fabricator's plants outside of San Diego County, California will be back-charged to the Contractor.

2. CBC (ICC) AISC certified shop. All fabrication must be performed in a shop having current CBC (ICC) AISC certification, or have ICC certified Special Inspectors providing special inspection in the shop in accordance with Chapter 17 of the CBC. It is assumed that all fabrication will take place in one shop location only. All additional inspection costs resulting from fabrication at more than one shop location will be back-charged to the Contractor.
3. Mill test expense. All mill tests and costs of retests of plain materials shall be at the expense of the Contractor.

B Structural steel tests. Tests for Structural Steel shall be made and reports furnished in accordance with the following requirements:

1. Perform all testing of structural steel in accordance with the requirements of ASTM A370.
2. X-ray, Gamma Ray and Ultrasonic testing shall conform to requirements of AWS D1.1.
3. Magnetic Particle testing shall conform to requirements of ASTM E709 and AWS D1.1.
4. Dye Penetrant testing shall conform to requirements of ASTM E165 and AWS D1.1.
5. Test specimens shall be taken under direction of the Owner's Testing Agency and shall be machined by the Contractor to dimensions as required by the related applicable Standard ASTM Specifications or AWS Standards.

C Mill Tests and Inspection of Structural Steel:

1. Tests of Mill Order A36 Steel: Where steel, ordered from the mill, cut to lengths, is identified by heat or melt numbers and is accompanied by mill analysis test reports, material shall be used without further local tests, provided an affidavit is given that materials conform to requirements. In case of controversy, provide tension and bend tests of materials either locally or at mill as required.
2. Test of Unidentified Steel: In the event structural steel cannot be identified by heat or melt numbers and is accompanied by mill analysis and test report, such stock may be used, provided 1 tension and 1 bend test is made for each 50 tons or fractional part, of stock as may be used in work. Complete four-sided surface inspection may be required for materials.

D Steel that cannot be identified or whose source is questionable shall be rejected and removed from the job site.

E Steel pipe and HSS sections shall have one tension, one bend and one flattening test for each lot of 500-ft lengths or fraction thereof of each size.

F Inspection of the structural steel will be performed in the mill, shop and field but such inspections or tests shall not relieve the Contractor of his responsibility to furnish satisfactory materials. The Engineer shall have the right to inspect and reject faulty

materials or workmanship at any time prior to the final acceptance of the erected structural steel.

G Tests of Welding and Bolting: The District Inspector/Assistant Engineer/Testing Agency OBC Inspector shall inspect shop and field welding in accordance with AISC 341, Appendix Q and shall comply with regulations of the CBC as indicated on the Drawings. Certify in writing, upon completion of work, that welding has been performed in accordance with the Drawings and these Specifications.

H Ultrasonic testing shall be performed by a specially trained, qualified technician provided by the District, who shall operate the equipment, examine welds and maintain a record of welds examined, defects found and disposition of each defect. Cost of repairing and retesting of defective welds shall be borne by the Contractor.

I Ultrasonic instrumentation shall be calibrated by technician to evaluate the quality of the welds in accordance with AWS D1.1, Appendix C.

J Magnetic particle testing shall be used on welds as required by AISC 341, Appendix Q.

PART 2 PRODUCTS

2.1 MATERIALS

A Steel Angles, Plates, Channels, Misc. Shapes: ASTM A36/A36M.

B Hollow Structural Section (HSS): ASTM A500, Grade B. Round shapes – Fy = 42 ksi. Rectangular shapes - Fy = 46 ksi.

C Welding Materials: AWS D1.1; type required for materials being welded.

D Shop and Touch-Up Primer: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.

E Touch-Up Primer for Galvanized Surfaces: High zinc dust content paint for regalvanizing welds in galvanized steel, complying with SSPC-Paint 20.

2.2 PAINT SYSTEM

A The paint system shall consist of a primer and top-coat as specified in SECTION 09 90 00 - PAINTING.

2.3 FABRICATION AESS 1

A Use special care in handling and shipping of AESS both before and after shop painting minimize damage to any shop finish. Use Nylon type slings or softeners when using chains or wire rope slings.

B The permissible tolerances for member depth, width, out of square, and camber and sweep shall be as specified in ASTM A36/A36M, and ASTM A500/A500M Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes (ASTM A500/A500M).

C Fabricate and assemble AESS in the shop to the greatest extent possible. Locate field joints in AESS assemblies at concealed locations or as approved by the Urban Designer. Detail AESS assemblies to minimize field handling and expedite erection.

D Remove blemishes or unsightly surfaces resulting from temporary braces or fixtures.

E Remove all backing and run out tabs.

F Grind all sharp edges smooth, including all sheared, punched or flame cut edges.

G Provide a continuous appearance to all welded joints including tack welds. Provide joint filler at intermittent welds.

H Bolted Connections: Provide bolt type and finish as noted within these Specifications.

I Weld Connections: Comply with AWS D1.1. Appearance and quality of welds shall be consistent. Assemble and weld built-up sections by methods that will maintain alignment of members without warp exceeding the tolerance of this section.

J Install all bolts on the same side of the connection. Orient uniformly in the direction indicated and consistent from one connection to another.

K Remove all weld spatter, slivers and similar surface discontinuities.

L Grind off projections larger than 1/16” at butt and plug welds.

M Continuous Weld Appearance: Where continuous welding is noted on the drawings, provide welds of a uniform size and profile.

N Seal Welds: Seal weld open ends of round and rectangular hollow structural section with 3/8" closure plates. Provide venting as required for galvanized members.

2.4 FABRICATION AESS 2

A Fabricate to Requirements of AESS 1 and as follows.

B The as-fabricated straightness tolerance shall be one-half of that specified in ASTM A36/A36M or ASTM A500/A500M.

C For curved structural members, whether composed of a single standard structural shape or built-up, the as-fabricated variation from the theoretical curvature shall be equal to or less than the standard camber and sweep tolerances permitted for straight members in the applicable ASTM standard.

D The tolerance on overall profile dimensions of welded built-up members shall be one-half of that specified in AWS D1.1/D1.1M: Structural Welding Code – Steel (AWS D1.1).

E Provide hidden part marks or piece marks that may be fully removed after erection.

2.5 FABRICATION AESS 3

A Fabricate to Requirements of AESS 2 and as follows.

B Fabricate AESS with exposed surfaces smooth, square and of surface quality consistent with the approved mock-up.

C Grind projections at butt and plug welds to be smooth with the adjacent surface.

D Orientation of HSS seams shall be as shown.

E Copes, miters, and cuts in surfaces exposed to view shall have a maximum gap of 1/8” in an open joint. If the gap is shown to be in contact, the contact shall be uniform within 1/16”.

F Mill marks shall not be exposed to view. If it is not possible to hide mill marks, then the mill marks are to be removed by appropriate length cutting of mill material. If this is not possible, the fabricator shall remove the mill mark, grind, and fill the surface to be consistent with the approved mock up.

G The matching of abutting cross sections is required

2.6 GALVANIZING

A Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to AESS indicated for galvanizing according to ASTM A123/A123M – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products. Fabricate such that all connections of assemblies are made in the field with bolted connections.

2.7 FINISH

A Prepare structural component surfaces for painting in accordance with SSPC-SP 16 and manufacturer’s written instructions as specified in SECTION 09 90 00 – PAINTING,

B Apply primer and top coat in shop per SECTION 09 90 00 – PAINTING.

C Steel assemblies indicated to be galvanized shall comply with ASTM A123.

2.8 BIRD DETERRENTS

A Bird deterrent: Bird-Shock Flex-Track Flex-TrackTM

B Or equal

PART 3 EXECUTION

3.1 EXAMINATION

A Existing construction. Verify elevations of steel pilecap bearing surfaces, locations of pile cap beams and pier framing; locations of under-pier improvements; and locations of anchor rods, bearing plates, and other elements in the presence of steel erection subcontractor for compliance with requirements.

B Corrections. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A Temporary Shoring and bracing. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads, loads induced by wind, earthquake, waves and design loads. Design and adequacy of shoring shall be the responsibility of the Contractor. Remove temporary supports when permanent structural steel, connections, and bracing are in-place, unless otherwise indicated.

3.3 ERECTION

A Set structural steel accurately in locations and to elevations indicated and according to AISC 303, 341 and 360.

B Maintain erection tolerances of structural steel with AISC 303, 341 and 360.

C Align and adjust various members forming part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will be in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.

1. Level and plumb individual members of structure. Special attention shall be given to plumbness of canopy columns to be adjusted to plumb vertical prior to construction of canopy framing members. Plumbness of columns shall be checked for after erection steel framing, and installation of canopy panels.
2. Make allowances for difference between temperature at time of erection and mean temperature when structure is completed and in-service.

D Splice members only where indicated.

E Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.

F Closure Plates: The contractor shall provide closure plates as necessary to complete the work.

G Separation of Dissimilar Metals: Where steel is in contact with aluminum or other dissimilar materials, an Engineer-approved isolation material shall be provided to prevent electrolysis. Special detailing is provided for potential dissimilar metals at the canopy/pile cap connection as indicated on the Drawings.

3.4 FIELD CONNECTIONS

A Bolted Connections. Install bolted connections in conformance AISC 313. Use washers underneath all nuts and ensure that the faying surfaces are fully touching. Confirm that all nuts are fully engaged on bolt threads. Recheck nuts for tightness prior to completing steel construction.

B Welded Connections: Comply with AWS D1.1 for welding procedure specifications, tolerances, appearance, and quality of welds and for methods used in correcting welding work.

1. Comply with AISC 303, 341 and 360 for bearing, adequacy of temporary connections, alignment, and removal of paint on surfaces adjacent to field welds.
2. Architecturally Exposed Structural Steel (AESS). Where indicated by “AESS” designation, comply with requirements for architecturally exposed structural steel as indicated in AISC 360 for finish of welds, removal of backing bars, etc.
    a. Assemble and weld built-up sections by methods that will maintain true alignment of axes without exceeding tolerances of AISC 360 for mill material.

b. Verify that weld sizes, fabrication sequence, and equipment used for architecturally exposed structural steel will limit distortions to allowable tolerances. Prevent weld show-through on exposed steel surfaces. Grind butt welds flush.

c. Grind or fill exposed fillet welds to smooth profile. Dress exposed welds.

3.5 FIELD QUALITY CONTROL

A Testing Agency: The District Inspector will provide, by use of in-house personnel, consultant or qualified independent testing and inspecting agency for the inspection of field welds and bolted connections.

B Welded Connections: Inspect welded connections in accordance with AISC/ANSI 341 Paragraphs 7.3a and 7.3b, in accordance with the requirements of AISC/ANSI 341 Appendix Q “Quality Assurance Plan, and as indicated on in the Drawings.

1. In addition to visual inspection, field welds will be tested according to AWS D1.1 and the following inspection procedures, at testing the Engineers option:

   a. Liquid Penetrant Inspection: ASTM E165.

   b. Magnetic Particle Inspection: ASTM E709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.

   c. Ultrasonic Inspection: ASTM E164.

   d. Radiographic Inspection: ASTM E94.

C In addition to visual inspection, test and inspect field-welded shear connectors according to requirements in AWS D1.1 for stud welding and as follows:

1. Perform bend tests if visual inspections reveal either a less-than- continuous 360-degree flash or welding repairs to any shear connector.

2. Conduct tests on additional shear connectors if weld fracture occurs on shear connectors already tested, according to requirements in AWS D1.1.

D Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.

3.6 REPAIRS AND PROTECTION

A Repair damaged galvanized coatings on galvanized items with galvanized repair paint according to ASTM A780 and manufacturer's written instructions.

B Touchup Painting: After installation, promptly clean, prepare, and prime or re-prime field connections, rust spots, and abraded surfaces of prime-painted joists and accessories and abutting structural steel.

1. Clean and prepare surfaces by SSPC-SP2 hand-tool cleaning or SSPC-SP3 power-tool cleaning.

2. Apply a compatible primer of same type as shop primer used on adjacent surfaces.

C Touchup Painting: Cleaning and touchup painting are specified in SECTION 09 90 00 - PAINTING.

END OF SECTION 05 12 00

SECTION 05 50 00
ARCHITECTURAL METAL FABRICATIONS

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all the work of ARCHITECTURAL METAL FABRICATIONS including stainless steel shade pavilion and shade pavilion aluminum cutout, and stainless steel posts for cable guard rail, as shown on the Drawings and as specified in these Technical Specifications.

1.2 RELATED DOCUMENTS

A References:

1. American National Standards Institute (ANSI)
2. Metal Finishes Manual for Architectural and Metal Products (NAAMM)

B Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 SUMMARY

A Section Includes:

1. Steel Guardrail, Stainless Steel
2. Shade Pavilion Panels, Stainless Steel

B Related Requirements:

1. SECTION 05 73 00 “Stainless Steel Rope Railing Systems” for Steel Cable
2. SECTION 05 12 00 "Structural Steel Framing."
3. SECTION 06 10 63 “Exterior Carpentry”

1.4 COORDINATION

A Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.

B Coordinate installation of metal fabrications that are anchored to or that receive other work. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

1.5 ACTION SUBMITTALS

A Product Data: For the following:

1. Stainless Steel
2. Aluminum

B Shop Drawings: Show fabrication and installation details. Provide Shop Drawings for the following:

1. Steel Guardrail, Stainless Steel
2. Shade Pavilion Panels, Stainless Steel
3. Shade Pavilion Cut-out, Stainless Steel

C Samples:

1. Stainless Steel – 6” x 6”

D Delegated-Design Submittal: Provide complete design package for assemblies listed below. Drawings and structural calculations shall be sealed by a professional Civil or Structural Engineer registered in the State of California.

1. Stainless Steel Rail Assembly as specified herein and in SECTION 05 73 00 STAINLESS STEEL WIRE ROPE SYSTEMS. Contractors professional design may assume that the pier structure can support the design loads of the stainless steel/cable railing if attached to the edge of the pier in a manner similar to the existing timber railing.
2. Stainless Steel Wire Rope and related hardware as specified in SECTION 05 73 00 STAINLESS STEEL WIRE ROPE SYSTEMS.

E Qualification Data: For qualified professional engineer/manufacturer.

1. Basis-of-Design Product: All Handrails and Pavilion Panels are custom design, per contract documents: Preferred Manufacturer: Richardson Steel, Inc. 92102 Harness St. Spring Valley, CA 91977. Contact Ken Lautner 619-697-5892 x 13; 619-921-8627 (cell)
2. Other manufacturers must submit qualification information; acceptable manufacturers must have manufacturing experience in both steel and wood systems, to fully manufacture entire guardrail system and canopy assembly.

1.6 INFORMATIONAL SUBMITTALS

A Mill Certificates: Signed by manufacturers of stainless-steel certifying that products furnished comply with requirements.

B Welding certificates.

1.7 QUALITY ASSURANCE

A Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

B Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
2. AWS D1.6/D1.6M, "Structural Welding Code - Stainless Steel."

1.8 FIELD MOCK-UP

A Prior to installing the following items, construct a field mock-up at earliest possible time and at an approved location preceding the work.

1. Combined Stainless Steel Guardrail including Ipe Wood Cap, and Steel Cables. Mock-up to include 6 linear feet of railing including one corner condition and a minimum of 2 posts.
2. Combined two panels of Shade Pavilion and a Shade Pavilion Cutout in Stainless Steel to depict finished condition, complete with all metal fasteners, spacers, to represent finished condition.

B Notify the Urban Designer seven days in advance of dates and times of when mock-ups will be constructed.

C Demonstrate the proposed range of aesthetic effects and workmanship.

D Obtain the Urban Designer's approval of mock-ups prior to proceeding with the work. When necessary, remove and reconstruct the field mock-up until approved. Approved mock-up shall serve as the standard of acceptance for the work.

E Maintain mock-ups during construction in an undisturbed condition as a standard for judging the completed work.

F Demolish and remove mock-ups when directed.

G Approval of mock-ups may become part of the completed work if undisturbed at time of Substantial Completion.

1.9 FIELD CONDITIONS

A Field Measurements: Verify actual locations of structural frame and existing edge condition and other construction contiguous with metal fabrications by field measurements before fabrication.

1.10 LOAD LIMITATIONS ON PIER

A Reference is made to load limitations on the pier as indicated on the Drawings and in these Technical Specifications. All construction activities shall be performed in such a manner so as to not exceed the indicated allowable loads.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.

1. Differential values in "Temperature Change" Subparagraph below (for aluminum in particular) are suitable for most of the U.S.

2. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 METALS

A Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

B Stainless-Steel Sheet, Strip, and Plate: ASTM A 240/A 240M, Type 316L.

C Stainless-Steel Bars and Shapes: ASTM A 240/A 240M, Type 316L.

2.3 FASTENERS

A General: Unless otherwise indicated, provide Type 316L stainless-steel fasteners for exterior use. Select fasteners for type, grade, and class required.

1. Provide stainless-steel fasteners for fastening stainless steel.

B Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with hex nuts, ASTM A 563 (ASTM A 563M); and, where indicated, flat washers.

C Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 325, Type 3 (ASTM A 325M, Type 3); with hex nuts, ASTM A 563, Grade C3 (ASTM A 563M, Class 8S3); and, where indicated, flat washers.

D Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless-steel bolts, ASTM F 593 (ASTM F 738M); with hex nuts, ASTM F 594 (ASTM F 836M); and, where indicated, flat washers; Alloy Group 1 (A1).

E Anchor Bolts: ASTM F 1554, Grade 36, of dimensions indicated; with nuts, ASTM A 563 (ASTM A 563M); and, where indicated, flat washers.

1. Hot-dip galvanize or provide mechanically deposited, zinc coating where item being fastened is indicated to be galvanized.

2.4 FABRICATION, GENERAL

A Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

B Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

C Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

D Form exposed work with accurate angles and surfaces and straight edges.

E Weld corners and seams continuously to comply with the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

F Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.

G Fabricate seams and other connections that are exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

H Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.

I Provide for anchorage of type indicated, coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.

2.5 MISCELLANEOUS FRAMING AND SUPPORTS

A General: Provide steel framing and supports not specified in other Sections as needed to complete the Work.

B Fabricate units from steel shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction.

1. Fabricate units from slotted channel framing where indicated.
2. Furnish inserts for units installed after concrete is placed.

2.6 STEEL WELD PLATES AND ANGLES

A Provide steel weld plates and angles not specified in other Sections, for items supported from concrete construction as needed to complete the Work. Provide each unit with no fewer than two integrally welded steel strap anchors for embedding in concrete.

2.7 FINISHES, GENERAL

A Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B Finish metal fabrications after assembly.

C Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.8 STAINLESS STEEL FINISHES

A Remove tool and die marks and stretch lines, or blend into finish.

B Directional Satin Finish: No. 4.

C When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.

D Do not use wire brush or any metal to clean. Use 3M green pads or similar.

PART 3 EXECUTION

3.1 INSTALLATION, GENERAL

A Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

B Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.

C Field Welding: Comply with the following requirements:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

D Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded through bolts.

E Install the stainless steel/cable railing as indicated on the Drawings to abut existing timber railing. Gaps between the timber railing and the stainless steel/cable railing assembly shall not exceed 4 inches in width.

END OF SECTION 05 50 00

SECTION 05 50 01
MISCELLANEOUS METAL AND FABRICATIONS

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of MISCELLANEOUS METAL AND FABRICATIONS including: fabrication and installation of assemblies; hardware; pile-to-pile cap connection anchorages; miscellaneous components; and touch-up protective coatings; complete in place, as shown on the Drawings and as specified in these Technical Specifications.

1.2 DOCUMENTS AND PUBLICATIONS

A 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. Where these Technical Specifications exceed the requirements of the publications listed below, the requirements of these Technical Specifications shall govern.

B American Institute of Steel Construction (AISC)

1. AISC/ANSI 303 - Code of Standard Practice for Structural Steel Buildings and Bridges;2016.

C American Society for Testing and Materials (ASTM)

1. ASTM A29/A29M - Standard Specification for General Requirements for Steel Bars, Carbon and Alloy, Hot-Wrought; 2016
2. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.
3. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
4. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016.
5. ASTM A307/A307M - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod
6. ASTM A563/A563M – Standard Specification for Carbon and Alloy Steel Nuts (Inch and Metric); 2021a.
7. ASTM A780/A780M – Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings; 2020.
8. ASTM D520/D520M - Standard Specification for Zinc Dust Pigment
9. ASTM D-1418 – Standard Practice for Rubber and Rubber Latices—Nomenclature
10. ASTM D-2000 – Standard Classification System for Rubber Products in Automotive Applications

11. ASTM F436 – Standard Specification for Hardened Steel Washers Inch and Metric Dimensions; 2019.

D American Welding Society (AWS)

1. AWS D1.1/D1.1M - Structural Welding Code - Steel; American Welding Society; 2020.
2. AWS D1.6/D1.6M - Structural Welding Code - Stainless Steel; American Welding Society; 2017.

E The Society for Protective Coatings (SSPC)

1. SSPC-SP3 – Surface Preparation Standard No. 3: Power Tool Cleaning; 2018.

1.3 SUBMITTALS

A Provide submittals for the following in accordance with applicable provisions of Section 5.3.4 of the GENERAL CONDITIONS and SECTION 01 33 00 - SUBMITTALS of these Specifications.

1.4 DRAWINGS

A Prior to fabrication, submit fabrication drawings indicating connections, thickness, type and class of steel shapes, plates, rods, connectors and finish for approval by the Engineer of the following:

1.5 UNDER PIER SCAFFOLD METHOD

A Submit scaffold method for access to under deck work items. Include scaffold method for railing post installation and deck framing alteration for canopy posts. Certification of scaffolding is needed.

1. Movable Under Pier Platform. A truck or trailer mounted under pier inspection / work platform (bridge snooper) that meets pier load limitations may be utilized in lieu of fixed scaffolding.

1.6 LOAD LIMITATIONS ON PIER

A Reference is made to load limitations on the pier as indicated on the Drawings and in these Technical Specifications. All construction activities shall be performed in such a manner so as to not exceed the indicated allowable loads.

1.7 QUALIFICATION OF WELDERS

A Qualify welders in accordance with AWS D1.1. In performing the qualification, the Contractor shall use procedures, material, and equipment of the type required for the work shown on the Drawings and in these Specifications.

1.8 DELIVERY, STORAGE, AND PROTECTION

A Protect all metals being fabricated from corrosion, deformation, and other types of damage. Items are to be stored in an enclosed area free from contact with soil and weather. Remove and replace damaged items with new items.

PART 2 PRODUCTS

2.1 MATERIALS

A Structural Carbon Steel. In accordance with ASTM A36.

B Anchors and Fasteners. Anchors and fasteners are to be of galvanized steel, except where stainless steel is indicated.

1. Threaded Rods, Bolts, Anchor Bolts, and Nuts. Threaded rods, bolts, anchor bolts and nuts are to be of galvanized steel; refer to ASTM A307, ASTM A563.
2. Gun-welded threaded studs – ASTM A29, Nelson Type CPL or approved equal.

C Epoxy Coating.

1. Carboline Carbomastic 615, or approved equal.

D Spray Cold Galvanizing Compound – ASTM D520, ZRC Cold Galvanizing Compound or approved equal.

E Dielectric Bushing.

1. Dielectric bushing should be a Neoprene/EPDM rubber that follows ASTM D-2000 and ASTM D-1418 with a hardness (durometer) range of 30-90.

2.2 FABRICATION FINISHES

A The Contractor shall hot-dip galvanize items specified to be zinc-coated after fabrication. Conform to ASTM A123, ASTM A153, or A563 where applicable.

B Galvanize. The Contractor shall use galvanized anchor bolts, bolts, nuts, support brackets, hardware, wire rope, and parts or devices necessary for proper installation, unless indicated otherwise. All ferrous metals other than stainless steel shall be hot dipped galvanized. Hardware and assemblies shall be galvanized in accordance with ASTM A153 and shall not be less than two ounces per square foot.

C Preparation prior to galvanizing shall be by acid pickling. Galvanizing shall be performed the same day as pickling. After pickling and before galvanizing, all items shall be heated to 300 °F to expel hydrogen absorbed during pickling.

D Components of bolted assemblies shall be galvanized before assembly. Welded assemblies shall be galvanized after welding. The zinc coating shall adhere tenaciously to the steel surface, shall be free from blisters and excess zinc, and be even, smooth and uniform throughout. All cutting, punching, drilling, rounding of edges and other machine work shall be performed as far as possible before galvanizing, the areas from which galvanizing has been removed shall be touched up in the manner described for repairs.

E Repair of Zinc-Coated Surfaces. The Contractor shall repair damaged surfaces using a galvanizing repair method and paint that conform to ASTM A780, by the application of a cold galvanizing spray, or by stick or thick paste material specifically designed for the repair of galvanizing, as approved by the Engineer. The Contractor shall clean areas to be repaired and remove the slag from welds. The Contractor shall heat surfaces to which

stick or paste material is applied with a torch to a temperature sufficient to melt the metallics in the stick or paste, spread the molten material uniformly over surfaces to be coated, and wipe the excess material off.

2.3 MISCELLANEOUS ITEMS

A The Contractor shall provide items of steel plate and shapes as shown on the Drawings. The Contractor shall hot-dip galvanize the items after fabrication.

PART 3 EXECUTION

3.1 INSTALLATION

A Install items at the locations indicated in the Drawings and these Technical Specifications and in accordance with the requirements of AISC/ANSI 303.

B Studs at Canopy Column to Existing Pile Cap Connection. Remove coating from existing steel pier cap per SSPC-SP3 and as indicated in the Drawings. Weld studs to pile cap immediately after cleaning. Provide hard rubber dielectric bushing over studs. Apply spray galvanizing compound to raw metal surfaces of pile cap and gun-welded studs. After welding, apply touch up coating to steel pile cap. Coating – as indicated above for Epoxy Coating – 10 mil. thickness.

C Testing and inspection of gun-welded studs. Column to pile cap connections require four welded studs at each location. Prior to installation of the first set of gun-welded studs, the Contractor shall take a fifth welded stud and attach it to the prepared pile cap substrate in the center of the four-stud pattern. After the stud and pile cap surfaces have cooled, the Contractor shall attempt to deform the test gun-welded stud by us of prybar, sledgehammer, or other means to confirm that the welded connection is malleable and not brittle. This test shall be performed in the presence of the District Inspector. Assuming that the test stud was not brittle, the Contractor shall remove the stud and proceed with installation of all studs supporting the four columns of the canopy. If the test stud was brittle, the Contractor shall remove the stud and retest at another column location. ANCHORAGE, FASTENINGS, AND CONNECTIONS

D Provide anchorage as shown on the Drawings and where otherwise necessary for fastening miscellaneous metal items securely in place.

3.2 BUILT IN WORK

A Form for anchorage, metal work, built-in with concrete, or provide with suitable anchoring devices as indicated or as required. Furnish metal work in ample time for securing in place as the work progresses.

3.3 WELDING

A All welding, welding inspection and corrective welding shall conform to AWS D1.1 and AWS D1.6 where appropriate. Provide AWS D1.1 qualified welders, welding operators, and tackers. Welding procedures that conform to Section 3 of AWS D1.1 will be deemed prequalified. Procedures other than those pre-qualified shall be qualified by tests as specified in Section 4 of AWS D1.1. Welding shall be performed only by welders or

operators who have been qualified in accordance with Section 4 of AWS D1.1, and their qualification test records shall be made available to the Engineer.

B Welds shall be of uniform width and size throughout their length. Each layer shall be smooth and free from slag, cracks, pin holes and undercut, and completely fused to the adjacent weld beads and base metal. The cover pass shall be free from coarse ripples, high crown deep ridges and valleys between beads, and shall blend smoothly and gradually into the surface of the base metal. Fillet and groove welds shall be of specified size with full throat and the legs of uniform length. For all details to be joined by welding, and where other continuous welds are not indicated on the Drawings, provide continuous 1/4 in. fillet welds. Repair, chipping or grinding of welds, shall not gouge, groove, or reduce the base metal thickness. The manufacturer's recommendations shall be followed for both the oven-storage and reconditioning of electrodes.

3.4 REPAIR OF ZINC COATED SURFACES

A The Contractor shall repair damaged surfaces using a galvanizing repair method and paint that conform to ASTM A780 or by the application of stick or thick paste material specifically designed for the repair of galvanizing, as approved by the Engineer. The Contractor shall clean areas to be repaired and remove the slag from the welds. The Contractor shall heat surfaces to which stick or paste material is applied with a torch to a temperature sufficient to melt the metallics in the stick or paste, spread the molten material uniformly over surfaces to be coated, and wipe the excess material off.

END OF SECTION 05 50 01

SECTION 05 73 00
STAINLESS STEEL WIRE ROPE RAILING SYSTEMS

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all the work of STAINLESS STEEL WIRE ROPE RAILING SYSTEMS including cable railing located at shade canopy across from restroom facility as shown on the Drawings and as specified in these Technical Specifications.

1.2 RELATED DOCUMENTS

A References:

1. American National Standards Institute (ANSI)
2. Metal Finishes Manual for Architectural and Metal Products (NAAMM)
3. ASTM A 380 - Practice for Cleaning and Descaling Stainless Steel Parts, Equipment and Systems.
4. ASTM A 492 - Specification for Stainless Steel Rope Wire.
5. ASTM A 555 - Stainless Steel Wire.
6. ASTM F 1145 - Specification for Turnbuckles, Swaged, Welded, Forged.
7. MIL-DTL-5688E - Pre-Stretching and Proof-Testing of Wire Rope Assemblies.

B Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 SUMMARY

A Section Includes:

1. Horizontal wire rope railing infill system.

B Related Requirements:

1. SECTION 05 50 00 ARCHITECTURAL METAL FABRICATIONS
2. SECTION 05 50 01 MISCELLANEOUS METAL AND FABRICATIONS
3. SECTION 06 10 63 EXTERIOR CARPENTRY

1.4 DESIGN/PERFORMANCE REQUIREMENTS

A Structural Requirements: Provide complete design package for stainless steel posts and anchorage. Incorporate into the overall design the wire rope railings systems described below. Drawings and structural calculations shall be sealed by a professional Civil or Structural Engineer registered in the State of California. The system shall be capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated on the Drawings:

1. Handrails:

a. Uniform load of 50 lbs/ft. (0.73 kN/m) applied in any direction.

b. Concentrated load of 200 lbs/ft (0.89 kN) applied in any direction.

c. Uniform and concentrated loads need not be assumed to act concurrently.

2. Top Rails of Guards:

a. 50 lbs/ft. (0.73 kN/m) applied horizontally and concurrently with 100 lbs/ft. (1.46 kN/m) applied vertically downward.

b. Concentrated load of 200 lbs/ft (0.89 kN) applied in any direction.

c. Uniform and concentrated loads need not be assumed to act concurrently.

3. Infill of Guards:

a. Concentrated load of 200 lbs/ft (0.89 kN) applied horizontally on an area of 1 SF (0.093 sm).

b. Railing shall comply with all requirements of the ADA and OSHA regulations.

4. Stainless Steel Posts as specified in SECTION 05 50 00 METAL FABRICATIONS

B Wire rope railing systems shall be designed, fabricated, and installed to comply with applicable codes and regulations.

1. Minimum guardrail height: 42 inches (1067 mm).

2. Maximum opening in guardrail: Shall restrict a 4 inch (102 mm) diameter sphere.

3. Handrail diameter: 1-1/4-inch (32 mm) minimum and 2 inches (51 mm) maximum.

4. Handrail clearance from wall: 1-1/2-inch (38 mm) minimum.

C Wire rope railing systems shall be designed, fabricated, and installed to accommodate expansion and contraction of metal components without causing undue stress, buckling, opening of joints, and distortion.

D Design supports and hardware to withstand loads encountered without excessive deflection or distortion when cables are tensioned to required amounts required to conform to applicable building codes.

E Exposed fasteners shall be of same materials, color and finish as material to which applied. Exposed surfaces throughout project shall have same inherent texture and color for similar locations.

1.5 ACTION SUBMITTALS

A Product Data: Provide manufacturer's standard catalog data for specified products demonstrating compliance with referenced standards. Provide list of fittings being provided with descriptions, load capabilities, and either photographs or drawings for each type.

B Shop Drawings: Submit Shop Drawings for fabrication and installation. Include the following:

1. Plans, elevations, and detail sections.

2. Indicate materials, methods, finishes, fittings, fasteners, anchorages, and accessory items.
3. Provide setting diagrams and templates for anchorages, sleeves, and bolts to be installed by others.
4. Where materials or fabrications are indicated to comply with design loadings, include material and safety factor properties, and other information needed for structural analysis.

C Verification Samples: Two samples representing actual products and finishes as follows:

1. Wire rope with fitting, minimum size 12 inches (300 mm) long.
2. Typical fittings.

D Installation Instructions: Manufacturer's printed installation instructions.

E Operation and Maintenance Data: Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.

F Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE

A Manufacturer Qualifications: Company specializing in manufacturer of stainless steel wire rope, fittings, and other stainless steel components with 10 years minimum successful experience.

B Installer Qualifications: Experienced in performing work of this section that has specialized in installation of work similar to that required for this project

C Preinstallation Meetings: Conduct meetings including Contractor, Architect, fabricator, installer and other subcontractors whose work involves cable railing system to verify project requirements, framing and support conditions, mounting surfaces and manufacturer's installation.

1.7 FIELD MOCK-UP

A Prior to installing the following items, construct a field mock-up at earliest possible time and at an approved location preceding the work.

1. Steel Cable Mock-up included in SECTION 05 50 00 ARCHITECTURAL METAL FABRICATIONS

1.8 DELIVERY, STORAGE, AND HANDLING

A Store products in manufacturer's unopened packaging until ready for installation.

B Handle and store products according to manufacturer's recommendations. Leave products wrapped or otherwise protected and under clean and dry storage conditions until required for installation.

1. Exercise care not to scratch, mark, dent, or bend metal components during delivery, storage, and installation

1.9 FIELD CONDITIONS

A Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A Cable System: Jakob Rope Systems, which is located at: 955 N. W. 17th Ave. Unit B ; Delray Beach, FL 33445; Toll Free Tel: 866-215-1421; Tel: 561-330-6502; Fax: 561-330-6508; Email: request info (info@jakob-usa.com); Web: www.jakob-usa.com, or approved equal.

B Provide all cable, materials, fittings and components from a single manufacturer.

2.2 WIRE ROPE

A Material: ASTM A 492 and ASTM A 555, Type 316 stainless steel. Fabricate wire rope with integral colored filament designating specific manufacturer.

B Type 1: 7x7 wire rope; INOX No. 10820-0600 as manufactured by Jakob, Inc.

1. Diameter: 1/4 inches.
2. Breaking load including safety factor: 4,180 pounds (2,090 kg) minimum.

C Length: Provide wire rope tendons in lengths indicated on Drawings and approved shop drawings.

1. Provide optimum adjustment in both directions by calculating final tendon lengths with allowance for tensioning fittings with 2/3 open and with 1/3 of thread length engaged.
2. Measure tendon length from center of pin to center of pin, or center of eye to center of eye.

D Mounting Hardware: Radius Head with Internal Thread by Jakob. Inc.

2.3 FITTINGS

A Provide fittings required for attachment and connection of stainless steel wire rope and infill to support framework and substrates.

B Fitting minimum breaking strength

1. As selected by manufacture to suit application and design requirements specified

C shop applied swaged rope ends, threaded external and internal swivel ends, turnbuckles, tensioning screws, end stops, clevis ends, eye ends, loop ends, and end cones.

1. Screwed rope ends for on-site assembly: Threaded external and internal swivel ends, turnbuckles, tensioning screws, end stops, clevis ends, eye ends, loop ends, and end cones.
2. Clamps: Ring clamps, cross clamps, wire rope clamping cones, and connecting wire rope clamps.

3. Post fittings: Straight, angled, and spherical

4. Anchoring systems: Studs, clevis, eye end, eye bolt, slotted, spacer baskets, radial clevis holder, cross clamp with support disk, slotted rope deflector, ball cage.

D Accessories: Provide threaded couplings, tensioning screws, cover disks, eye bolts, eye nuts, carabiners, shackles, clips, welded rings, screws, washers, lock nuts, hexagonal nuts, dome nuts, wall anchors, screws, and wire endcaps as required to complete the installation.

2.4 FABRICATION

A Tolerances: Verify dimensions on site prior to shop fabrication.

B Fabricate stainless steel in accordance with AISI Steel Product Manual and the manufacturers requirements.

C Shop to fabricate designs indicated on Drawings and to meet performance requirements specified.

D Shop to fabricate fittings, interfacing parts and assemblies so that field cutting adjustments are not necessary.

E Coordinate requirements, dimensions and spacings of wire rope railing system to ensure required factory drilled holes in supporting framework are correctly located.

F Make exposed joints butt, flush, and hairline.

PART 3 EXECUTION

3.1 EXAMINATION

A Before beginning installation, verify that conditions installed under other sections are acceptable for installation of cable railing systems in accordance with manufacturer's installation instructions.

B Verify supporting posts and framework for stainless steel wire rope railings are prepared for attachment of anchors, fittings, wire rope, and wire netting and transfer of calculated loads.

C If conditions are the responsibility of another installer, notify Landscape Architect of unsatisfactory preparation and gain resolution of the problem before proceeding.

3.2 PREPARATION

A Verify alignment, support dimensions, and tolerances are correct.

B Inventory components to ensure all required items are available for installation. Inspect components for damage. Remove damaged components from site and replace.

3.3 INSTALLATION

A Install wire rope infill system in accordance with manufacturer's instructions and the approved shop drawings.

B Provide anchorage devices and fittings to secure to in-place construction, including threaded fittings for concrete inserts, toggle bolts and through-bolts.

C Install wire rope infill system plumb, level, square, and rigid without kinks or sags.

D Anchor wire rope railing system to mounting surfaces as indicated on the drawings.

E Separate dissimilar materials with bushings, grommets or washers to prevent electrolytic corrosion.

F Use manufacturer's supplied cable hardware.

G Ensure cables are clean, parallel to each other, and without kinks or sags.

H Tension cable with hand or hydraulic equipment so that no slack is visible.

I After final adjustment provide tamper resistant lock tight materials on all fittings.

3.4 ADJUSTING AND CLEANING

A Adjust wire rope tension and connecting hardware.

B Remove temporary coverings and protection of adjacent work areas. Clean installed products in accordance with manufacturer's instructions before owner's acceptance.

C Do not use abrasive cleaners.

D Remove from project site and legally dispose of construction debris associated with this work.

3.5 PROTECTION

A Protect installed products until completion of project.

B Touch-up, repair or replace damaged products before Substantial Completion.

C Protect installed products and finished surfaces from damage during construction.

D Replace defective or damaged components as directed by Architect.

E Repair damaged factory-applied finish as directed by Architect.

END OF SECTION 05 73 00

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

SECTION 06 10 63
EXTERIOR CARPENTRY

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of EXTERIOR CARPENTRY including fabrication and installation of Ipe wood handrail at stainless steel/cable guardrail; provide each component ready for use; complete in place, as shown on the Drawings and as specified in these Specifications.

1.2 RELATED DOCUMENTS

A References:

1. American National Standards Institute (ANSI)
2. California Code of Regulations (CCR)
3. Principles and Criteria for Forest Stewardship (FSC)
4. American Softwood Lumber Standard (DOC PS 20)
5. American Lumber Standard Committee (ALSC)

B Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 SUMMARY

A Section Includes:

1. Ipe wood handrail at stainless steel/cable guardrail

B Related Sections:

1. SECTIONS 05 50 00 ARCHITECTURAL METAL FABRICATIONS and 05 73 00 STAINLESS STEEL WIRE ROPE RAILING SYSTEMS for all guardrails.

1.4 DEFINITIONS

A Boards: Lumber of less than 2 inches nominal in thickness and 2 inches nominal or greater width.

B Dimension Lumber: Lumber of 2 inches nominal or greater but less than 5 inches nominal in least dimension.

C Timber: Lumber of 5 inches nominal or greater in least dimension.

1.5 SUBMITTALS

A Certificates of Inspection: Issued by lumber grading agency for exposed wood products not marked with grade stamp.

B Evaluation Reports:

1. Wood top rail fasteners.

C Product Data. Submit available Product Data and manufacturing sources for each type of material and product indicated herein this Article to the Landscape Architect. Product data shall include source, Distributor, and Manufacturer's name, address, and telephone numbers. Submit the following:

1. Ipe wood for handrail.
2. Stainless steel fasteners

D Samples for Verification:

1. 12" length for Ipe Wood handrail.
2. Stainless steel fasteners

E Shop Drawings

1. Ipe Wood handrail at stainless steel guardrail

1.6 QUALITY ASSURANCE

A Forest Certification: Provide wood products obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."

1.7 DELIVERY, STORAGE, AND HANDLING

A Store materials under cover and protected from weather and contact with damp or wet surfaces. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

B Handle and store lumber to comply with manufacturer's written instructions.

1.8 LOAD LIMITATIONS ON PIER

A Reference is made to load limitations on the pier as indicated on the Drawings and in these Technical Specifications. All construction activities shall be performed in such a manner so as to not exceed the indicated allowable loads.

PART 2 PRODUCTS

2.1 LUMBER, GENERAL

A Lumber: Comply with DOC PS 20 and with applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by ALSC's Board of Review. Provide lumber graded by an agency certified by ALSC's Board of Review to inspect and grade lumber under the rules indicated.

B Factory mark each item with grade stamp of grading agency.

C For items that are exposed to view in the completed Work, mark grade stamp on end or back of each piece.

D Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry wood products.

E Provide dressed lumber, S4S, unless otherwise indicated.

2.2 DIMENSION LUMBER

A Maximum Moisture Content: 15 percent for 2-inch nominal thickness or less; 19 percent for more than 2-inch nominal thickness.

B Exposed Lumber: Provide material hand selected for freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot holes, shake, splits, torn grain, and wane.

2.3 FASTENERS

A General: Provide fasteners of size and type indicated, that comply with requirements specified in this article for material and manufacture. Provide screws, in sufficient length, to penetrate not less than 1-1/2 inches (38 mm) into wood substrate.

1. Use stainless steel unless otherwise indicated.

B Power-Driven Fasteners: ICC-ES AC70.

C Wood Screws and Lag Screws: ASME B18.2.1, ASME B18.6.1, or ICC-ES AC233.

1. #1/4-14 X 2-1/2” Phillips flat head self-drilling screw 410 stainless steel #3 epoxy point

PART 3 EXECUTION

3.1 EXAMINATION

A Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A Clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION, GENERAL

A Provide Ipe wood rail that provides an attractive, durable, and safe surface. Replace damaged material and redo unacceptable work at no additional cost to the Port. Ipe wood railing shall be protected from exposure that would result in damage or deterioration to the material before, during, and after installation. Keep a copy of the manufacturer's maintenance recommendations available onsite. The Contractor shall follow these instructions unless directed otherwise by the Engineer.

B Cleaning solutions, coatings, sealants, and any similar materials required to install the railing shall be stored in accordance with the manufacturer's recommendation and shall

be discarded if the storage period exceeds the recommended shelf life. Solvents in use shall be discarded when the recommended pot life is exceeded.

C Set exterior carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit exterior rough carpentry to other construction; scribe and cope as needed for accurate fit.

D Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction" unless otherwise indicated.

E Install wood top rail with crown up.

F Do not splice structural members between supports unless otherwise indicated.

G Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

H Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

I Securely attach exterior carpentry work to substrate by anchoring and fastening as indicated. Pre-drilling may be required for Ipe wood anchorage.

J For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered.

END OF SECTION 06 10 63

SECTION 06 13 33
PIER TIMBERWORK

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of PIER TIMBERWORK including: reinstallation of salvaged timber decking at canopy columns, modification of existing timber railings, field application of timber preservative treatment, and other miscellaneous timberwork; complete in place, as shown on the Drawings and as specified in these Technical Specifications.

1.2 DOCUMENTS AND PUBLICATIONS

A 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. Where these Technical Specifications exceed the requirements of the publications listed below, the requirements of these Technical Specifications shall govern.

B Standard Specification for Public Works Construction.

C American Society of Mechanical Engineers (ASME)

1. Square, Hex, Heavy Hex, and Askew Head Bolts and Hex, Heavy Hex, Hex Flange, Lobed Head, and Lag Screws, (2012).

D American Society for Testing and Materials (ASTM)

1. ASTM A307Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 psi Tensile Strength (2021).
2. Standard Specification for Gray Iron Castings (2021).
3. Standard Specification for Zinc Coating (Hot Dip) on Iron and Steel Hardware (2016a).
4. ASTM F1667 Standard Specification for Driven Fasteners: Nails, Spikes and Staples (2021)

E American Wood Preservers Association (AWPA)

1. Standard for the Inspection of Preservative Treated Products for Industrial Use (2019).
2. AWPA M4 Standard for the Handling, Storage, Field-Fabrication and Field Treatment of Preservative-Treated Wood Products (2021).
3. AWPA M6 Brands Used on Preservative Treated Materials (2018).
4. Waterborne Preservatives (2015).
5. Standard for Ammoniacal Copper Zinc Arsenate (ACZA) (2020).
6. Standard for Copper Naphthenate (CuN) (2016).

7. User Specification for Treated Wood (2021).

F National Design Specification for Wood Construction (NDS) (2018).

1.3 QUALITY ASSURANCE

A Pier Timberwork shall conform to the 2018 NDS. All lumber shall be identified by the official grade mark or the Contractor shall provide inspection certificates from appropriate grading and inspecting agencies prior to installation.

B 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, the AWPA Use Category, and the condition of the wood. Do not incorporate materials damaged in transport from plant to site. Inspect all preservative-treated wood to ensure there are no excessive residual materials or preservative deposits. Material that contains excessive residual preservative may be rejected based on environmental concern.

C Transportation, Storage, and Handling. Cover all lumber during transport and in storage at the jobsite as required to protect it from rain, salt water, or other damaging conditions. Treated lumber damaged as a result of delivery or installation shall be replaced as required by the Engineer. Do not handle treated timbers with hooks, come-along winches, or other means that damage the treated surface.

D Stack and sticker lumber at the jobsite storage area off of the ground on wooden pallets or other wood not to be used in the work. Wood planks shall not be stockpiled on the pier.

1.4 SUBMITTALS

A The Contractor shall submit the following documents for the review by the Engineer.

1. Timber certificates for lumber without grade marks.
2. Manufacturer’s literature and certificates for shop applied and field applied wood preservative treatment materials and methods.

1.5 UNDER PIER SCAFFOLD METHOD

A Submit scaffold method for access to under deck work items. Include scaffold method for deck framing alteration for canopy posts.

1. Movable Under Pier Platform. A truck or trailer mounted under pier inspection / work platform (bridge snooper) that meets pier load limitations may be utilized in lieu of fixed scaffolding.

1.6 LOAD LIMITATIONS ON PIER

A Reference is made to load limitations on the pier as indicated on the Drawings and in these Technical Specifications. All construction activities shall be performed in such a manner so as to not exceed the indicated allowable loads. Scaffolding needs to be certified by an Engineer.

PART 2 PRODUCTS

2.1 LUMBER AND TIMBERS

A Lumber shall be Douglas Fir No. 1 or better, with a minimum stress rating of 1,500 psi in bending and 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. Lumber shall be handled in accordance with AWPA M4.

2.2 PRESERVATIVE TREATMENT

A All lumber shall be pressure treated for use category UC4B as defined in AWPA U1. Pressure treatment shall be Ammoniac Copper Zinc Arsenate (ACZA) in accordance with AWPA M6 and per AWPA P5 and AWPA P22 with a minimum net retention of 0.60 pounds per cubic foot.

B All lumber shall be inspected and marked in accordance with AWPA M2.

C Field treatment: Treat all lumber cuts or holes made in the field with Copper Naphthenate in accordance with AWPA P36.

2.3 HARDWARE

A Bolts shall conform to ASTM A307. Provide washers under the heads and nuts. Bolt heads bearing on timber shall use an ogee washer, unless noted otherwise. Dome head timber bolts do not require a washer under the head.

B For plates, brackets and other metal work, see SECTION 05 50 01 - MISCELLANEOUS METAL AND FABRICATIONS.

C Ogee washers shall be cast iron conforming to ASTM A48.

D Lag bolts and their washers shall be steel per ASME B18.2.1.

E Timber deck spikes shall be per ASTM F1667 round spikes with annular ring shank, 3/8 in. shank diameter by 8 in. long, with 3/4 in. head diameter, installed in pre-drilled holes.

F All hardware including brackets, bolts, nuts, washers, drift pins, lag bolts, screws and nails shall be hot-dipped galvanized in accordance with ASTM A153, except those required to be stainless steel.

PART 3 EXECUTION

3.1 FRAMING

A Cut and frame lumber and timber so that joints will fit over contact surface. Open joints are unacceptable. Shimming is not allowed except where noted in the Drawings.

B Lag bolts shall be countersunk. Bore lead holes for lag bolts in two parts. Make lead hole for shank the same diameter as shank. Make lead hole for the threaded portion two-thirds of the shank diameter. Untreated wood exposed from cutting, notching or drilling shall be field-treated with a two-coat application of preservative during installation.

C Timber Decking. Existing timber decking shall be removed and salvaged per SECTION 02 41 00 - DEMOLITION AND REMOVAL REQUIREMENTS. After installation of the canopy columns, reinstall salvaged timber decking leaving neat annulus around column as indicated in the Drawings. New decking is allowed where existing decking cannot be salvaged. Decking that is removed shall be replaced within the same workday.

D New/salvaged deck planks shall be reinstalled to be continuous across the full width of the pier to match existing decking, except where interrupted by canopy columns. New/salvaged decking shall be placed with the annular rings facing concave upwards. Install spikes to miss pre-existing spike holes. Bevel edges of new/salvaged deck planks to match existing adjacent planks, maximum bevel 0.25 in. Center the new/salvaged decking in the opening between existing decking with 0.5 in. maximum space to adjacent boards. Contractor shall verify new decking will fit in place of existing planks without field milling or planning.

3.2 CONNECTIONS

A Connections using bolts, lag bolts, etc., shall be installed in accordance with the NDS 2018.

3.3 INSPECTION

A The Contractor shall provide lumber conforming to AWPA standards and shall be responsible for the quality of treated wood products. The Contractor shall provide the Engineer with certifications that the products comply 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.

END OF SECTION 06 13 33

DIVISION 09 – FINISHES

SECTION 09 90 00
PAINTING

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all work of PAINTING including surface preparation and field painting of structural steel components of the canopy columns and framing, as shown on the Drawings and specified in these Technical Specifications.

1.2 DOCUMENTS AND PUBLICATIONS

A 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. Where these Technical Specifications exceed the requirements of the publications listed below, the requirements of these Technical Specifications shall govern.

1. The Society for Protective Coatings (SSPC)
    a. SSPC-SP1 – Surface Preparation Standard No. - 1 Solvent Cleaning; 2018.
    b. SSPC-SP 16 – Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals (2010)

1.3 SUBMITTALS

A Product Data: For each paint system specified, include primers.

1. Material List: Provide an inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
2. Manufacturer's Information: Provide manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material proposed for use.
3. Color Card for primer and finish coats.

B Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated.

C Samples for Verification: Of each color and material to be applied, with texture to simulate actual conditions, on representative Samples of the actual substrate.

1. Provide a list of materials and applications for each coat of each sample. Label each sample for location and application.

D Qualification Data: For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

1.4 QUALITY ASSURANCE

A Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material and extent to that indicated for this Project with a record of successful in-service performance.

B Source Limitations: Obtain primers, and undercoat materials for each coating system from the same manufacturer as the finish coats.

C MPI Standards:

1. Products: Complying with MPI standards indicated and listed in "MPI Approved Product List".

1.5 DELIVERY, STORAGE AND HANDLING

A Deliver materials to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:

1. Product name or title of material.
2. Product description (generic classification or binder type).
3. Manufacturer's stock number and date of manufacture.
4. Contents by volume, for pigment and vehicle constituents.
5. Thinning instructions.
6. Application instructions.
7. Color name and number.
8. VOC content.

B Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.

1. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

1.6 PROJECT CONDITIONS

A Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 deg F (10 and 32 deg C).

B Apply solvent-thinned paints only when the temperature of surfaces to be · painted and surrounding air temperatures are between 45 and 95 deg F (7.2 and 35 deg C).

C Do not apply paint in rain, fog, or mist; or when the relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.7 EXTRA MATERIALS

A Furnish extra paint materials from the same production run as the materials applied in the quantities described below. Package paint materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to the Owner.

1. Quantity: Furnish the Owner with extra paint materials in the quantities indicated below:

   a. Exterior Paint: Five gallons of each color applied.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products listed below.

B PPG Industries, Inc. (PPG) or approved equal

1. Epoxy Primer - Amercoat 240 Edge Retentive Epoxy Primer
2. Polysiloxane Finish Coat – PSX 700 Two-component, engineered siloxane coating – color to be determined at time of paint submittal for approval. Submit color card

2.2 PAINT MATERIALS, GENERAL

A Material Compatibility: Provide primers, undercoats and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.

C VOC Content of Field-Applied Interior Paints and Coatings: Provide products that comply with the following limits for VOC content, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24); these requirements do not apply to paints and coatings that are applied in a fabrication or finishing shop:

1. Flat Paints, Coatings, and Primers: VOC content of not more than 50 g/L.
2. Nonflat Paints, Coatings, and Primers: VOC content of not more than 150 g/L.
3. Anti-Corrosive and Anti-Rust Paints Applied to Ferrous Metals: VOC not more than 250 g/L.

D Colors: Color selections will be made by the Landscape Architect.

PART 3 EXECUTION

3.1 EXAMINATION

A Examine substrates, areas, and conditions, with the Applicator present, under which painting will be performed for compliance with paint application requirements.

1. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
2. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.

B Coordination of Work: Review other. Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.

1. Notify the Engineer about anticipated problems using the materials specified over substrates primed by others.

3.2 PREPARATION

A General: Remove hardware and hardware accessories, plates, machined surfaces, and similar items already installed that are not to be painted. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

B Cleaning: Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings in accordance with SSPC SP-1. Remove oil and grease before cleaning.

1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

C Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified

1. Provide barrier coats over incompatible primers or remove and reprime.
2. Galvanized Surfaces: Prepare surface in accordance with SSPC SP-16 guidelines.

D Materials Preparation: Mix and prepare paint materials according to manufacturer's written instructions.

1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.

3. Use only thinners approved by paint manufacturer and only within recommended limits.

E Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of the same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.3 APPLICATION

A General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.

1. Prime coat and top coat shall be applied in the shop. Field painting must be approved by the Engineer. Touch up painting may be performed in the field.
2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
3. Provide finish coats that are compatible with primers used.

B Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

1. The number of coats and the film thickness required are the same regardless of application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
2. Omit primer on metal surfaces that have been shop primed and touchup painted.
3. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
4. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.

C Application Procedures: Apply paints and coatings by brush, roller, spray or other applicators according to manufacturer's written instructions.

1. Brushes: Use brushes best suited for the type of material applied. Use brush of appropriate size for the surface or item being painted.
2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by the manufacturer for the material and texture required.
3. Spray Equipment: Use airless spray equipment with orifice size as recommended by the manufacturer for the material and texture required.

D Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide the total dry film thickness of the entire system as follows:

1. Epoxy Primer – 7.0 mils Dry film Thickness
2. Polysiloxane Epoxy Finish Coats - 12.0 mils Dry film Thickness (over two coats).

E Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn through or other defects due to insufficient sealing.

F Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.

G Stipple Enamel Finish: Roll and redistribute paint to an even and fine texture. Leave no evidence of rolling, such as laps, irregularity in texture, skid marks, or other surface imperfections.

H Completed Work: Match approved samples for color, texture and coverage. Remove, refinish or repaint work not complying with requirements.

3.4 FIELD QUALITY CONTROL

A Engineer reserves the right to invoke the following test procedure at any time and as often as the Owner deems necessary during the period when paint is being applied:

1. The Engineer will engage the services of an independent testing agency to sample the paint material being used. Samples of material delivered to the Project will be taken, identified, sealed, and certified in the presence of the Contractor.
2. The testing agency will perform appropriate tests for the following characteristics as required by the Owner:
    a. Quantitative material analysis
    b. Abrasion resistance
    c. Apparent reflectivity
    d. Flexibility
    e. Washability
    f. Absorption
    g. Accelerated weathering
    h. Dry opacity
    i. Accelerated yellowness
    j. Recoating
    k. Skinning

l. Color retention

m. Alkali and mildew resistance

3. The Engineer may direct the Contractor to stop painting if test results show material being used does not comply with specified requirements. The Contractor shall remove non-complying paint from the site, pay for testing, and repaint surfaces previously coated with the rejected paint. If necessary, the Contractor may be required to remove rejected paint from previously painted surfaces if, on repainting with specified paint, the 2 coatings are incompatible.

3.5 CLEANING

A Cleanup: At the end of each workday, remove empty cans, rags, rubbish and other discarded paint materials from the site.

1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping. Be careful not to scratch or damage adjacent finished surfaces.

3.6 PROTECTION

A Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Engineer.

B Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.

1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in POCA P1.

END OF SECTION 09 90 00

DIVISION 26 – ELECTRICAL

SECTION 26 05 19
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES including but not limited to: wires, connectors, and splices for lighting and controls as noted on the Drawings and as specified in these Technical Specifications.

1.2 SUMMARY

A Section Includes:

1. Copper building wire.
2. Connectors and splices.

1.3 ACTION SUBMITTALS

A Product Data: For each type of product.

B Product Schedule: Indicate type, use, location, and termination locations.

1.4 INFORMATIONAL SUBMITTALS

A Field quality-control reports.

PART 2 PRODUCTS

2.1 COPPER BUILDING WIRE

A Description: Flexible, insulated, and uninsulated, drawn copper current-carrying conductor with an overall insulation layer or jacket, or both, rated 600 V or less.

B Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Alpha Wire Company.
2. Cerro Wire LLC.
3. Encore Wire Corporation.
4. General Cable; Prysmian Group North America.
5. Southwire Company, LLC.

C Standards:

1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.

2. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."

D Conductors: Copper, complying with ASTM B3 for bare annealed copper and with ASTM B8 for stranded conductors.

E Conductor Insulation:

1. Type THWN-2: Comply with UL 83.

2.2 CONNECTORS AND SPLICES

A Description: Factory-fabricated connectors, splices, and lugs of size, ampacity rating, material, type, and class for application and service indicated; listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.

B Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. 3M Electrical Products.
2. ABB, Electrification Business.
3. Hubbell Utility Solutions; Hubbell Incorporated.
4. Service Wire Co.

C Lugs: One piece, seamless, designed to terminate conductors specified in this Section.

1. Material: Copper.
2. Type: One hole with standard barrels.
3. Termination: Compression.

PART 3 EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

A Branch Circuits:

1. Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

A Circuits exposed or under pier deck:

1. Type THHN/THWN-2, single conductors in raceway.

B Branch Circuits exposed indoors:

1. Type THHN/THWN-2, single conductors in raceway.

3.3 INSTALLATION, GENERAL

A Complete raceway installation between conductor and cable termination points according to SECTION 26 05 33 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS prior to pulling conductors and cables.

B Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

C Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.

D Install exposed cables parallel and perpendicular to surfaces of exposed structural members and follow surface contours where possible.

E Support cables according to SECTION 26 05 29 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS.

3.4 CONNECTIONS

A Tighten electrical connectors and terminals according to manufacturer's published torque- tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.

B Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

3.5 IDENTIFICATION

A Identify and color-code conductors and cables according to SECTION 26 05 53 - IDENTIFICATION FOR ELECTRICAL SYSTEMS.

B Identify each spare conductor at each end with identity number and location of other end of conductor and identify as spare conductor.

3.6 FIELD QUALITY CONTROL

A Tests and Inspections:

1. Perform each of the following visual and electrical tests:
    a. Inspect exposed sections of conductor and cable for physical damage and correct connection according to the single-line diagram.
    b. Test bolted connections for high resistance using one of the following:
        1) A low-resistance ohmmeter.
        2) Calibrated torque wrench.
        3) Thermographic survey.
    c. Inspect compression-applied connectors for correct cable match and indentation.

d. Inspect for correct identification.

e. Inspect cable jacket and condition.

f. Insulation-resistance test on each conductor for ground and adjacent conductors. Apply a potential of 500 V(dc) for 300 V rated cable and 1000 V(dc) for 600 V rated cable for a one-minute duration.

g. Continuity test on each conductor and cable.

h. Uniform resistance of parallel conductors.

B Cables will be considered defective if they do not pass tests and inspections.

C Prepare test and inspection reports to record the following:

1. Procedures used.

2. Results that comply with requirements.

D Results that do not comply with requirements, and corrective action taken to achieve compliance with requirements.

END OF SECTION 26 05 19

SECTION 26 05 26
GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS including but not limited to: grounding and bonding systems and equipment for lighting and controls as noted on the Drawings and as specified in these Technical Specifications.

1.2 SUMMARY

A Section includes grounding and bonding systems and equipment.

1.3 ACTION SUBMITTALS

A Product Data: For each type of product indicated.

1.4 INFORMATIONAL SUBMITTALS

A Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

A Operation and Maintenance Data: For grounding to include in emergency, operation, and maintenance manuals.

PART 2 PRODUCTS

2.1 SYSTEM DESCRIPTION

A Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B Comply with UL 467 for grounding and bonding materials and equipment.

2.2 MANUFACTURERS

A Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. ABB, Electrification Business.
2. Burndy; brand of Hubbell Electrical Solutions; Hubbell Incorporated.
3. Galvan Industries, Inc.; Electrical Products Division, LLC.
4. Siemens Industry, Inc., Energy Management Division.

2.3 CONDUCTORS

A Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.

B Bare Copper Conductors:

1. Solid Conductors: ASTM B3.
2. Stranded Conductors: ASTM B8.
3. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch (6 mm) in diameter.
4. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
5. Bonding Jumper: Copper tape, braided conductors terminated with copper ferrules; 1- 5/8 inch (41 mm) wide and 1/16 inch (1.6 mm) thick.
6. Tinned Bonding Jumper: Tinned-copper tape, braided conductors terminated with copper ferrules; 1-5/8 inch (41 mm) wide and 1/16 inch (1.6 mm) thick.

2.4 CONNECTORS

A Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.

B Cable-to-Cable Connectors: Compression type, copper or copper alloy.

C Conduit Hubs: Mechanical type, terminal with threaded hub.

PART 3 EXECUTION

3.1 APPLICATIONS

A Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.

3.2 EQUIPMENT GROUNDING

A Install insulated equipment grounding conductors with all feeders and branch circuits.

B Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:

1. Feeders and branch circuits.
2. Flexible raceway runs.

3.3 INSTALLATION

A Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.

B Connections: Make connections so possibility of galvanic action or electrolysis is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact are galvanically compatible.

1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer in order of galvanic series.
2. Make connections with clean, bare metal at points of contact.

3. Make aluminum-to-steel connections with stainless steel separators and mechanical clamps.
4. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

3.4 FIELD QUALITY CONTROL

A Tests and Inspections:

1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
2. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.

B Grounding system will be considered defective if it does not pass tests and inspections.

C Prepare test and inspection reports

END OF SECTION 26 05 26

SECTION 26 05 29
HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS including but not limited to: supports, anchorage, attachments, and assemblies for lighting and controls as shown on the Drawings and as specified in these Technical Specifications.

1.2 SUMMARY

A Section Includes:

1. Support, anchorage, and attachment components.
2. Fabricated metal equipment support assemblies.

1.3 ACTION SUBMITTALS

A Product Data: For each type of product.

1. Include rated capacities and furnished specialties and accessories.

B Delegated Design Submittal: For hangers and supports for electrical systems.

1. Include design calculations and details of hangers.

1.4 INFORMATIONAL SUBMITTALS

A Welding certificates.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame Rating: Class 1.
2. Self-extinguishing according to ASTM D635.

2.2 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A Steel Slotted Support Systems: Preformed steel channels and angles with minimum 13/32-inch (10 mm) diameter holes at a maximum of 8 inch (200 mm) on center in at least one surface.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    a. ABB, Electrification Business.
    b. Cooper B-line; brand of Eaton, Electrical Sector.
    c. Unistrut; Atkore International.

2. Standard: Comply with MFMA-4 factory-fabricated components for field assembly.
3. Material for Channel, Fittings, and Accessories: Hot dipped galvanized steel.
4. Channel Width: Selected for applicable load criteria.
5. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA- 4.

B Conduit and Cable Support Devices: Stainless steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

C Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to surfaces include the following:

1. Concrete Inserts: Steel or malleable-iron, slotted support system units are similar to MSS Type 18 units and comply with MFMA-4 or MSS SP-58.
2. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM F3125/F3125M, Grade A325 (Grade A325M).
3. Toggle Bolts: Stainless steel springhead type.

PART 3 EXECUTION

3.1 SELECTION

A Comply with the following standards for selection and installation of hangers and supports, except where requirements on Drawings or in this Section are stricter:

1. NECA NEIS 101

B Comply with requirements for raceways and boxes specified in SECTION 26 05 33 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS.

C Maximum Support Spacing and Minimum Hanger Rod Size for Raceways: Space supports for EMT, IMC, and ERMC as required by NFPA 70. Minimum rod size must be 1/4 inch (6 mm) in diameter.

D Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.

1. Secure raceways and cables to these supports with two-bolt conduit clamps.

3.2 INSTALLATION OF SUPPORTS

A Comply with NECA NEIS 101 for installation requirements except as specified in this article.

B Raceway Support Methods: In addition to methods described in NECA NEIS 1, EMT IMC may be supported by openings through structure members, in accordance with NFPA 70.

C Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading

limits. Minimum static design load used for strength determination must be weight of supported components plus 200 lb. (90 kg).

D Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to structural elements by the following methods unless otherwise indicated by code:

1. To Wood: Fasten with lag screws or through bolts.

3.3 PAINTING

A Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A780.

END OF SECTION 26 05 29

SECTION 26 05 33
RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS including but not limited to: raceway, fittings, wireways, and enclosures for lighting and controls as shown on the Drawings and as specified in these Technical Specifications.

1.2 SUMMARY

A Section Includes:

1. Type PVC raceways and fittings.
2. Fittings for conduit, tubing, and cable.
3. Wireways and auxiliary gutters.
4. Cabinets, cutout boxes, junction boxes, pull boxes, and miscellaneous enclosures.

1.3 ACTION SUBMITTALS

A Product Data: For the following:

1. Wireways and auxiliary gutters.
2. Cabinets, cutout boxes, and miscellaneous enclosures.

B Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, and attachment details. Show that floor boxes are located to avoid interferences and are structurally allowable.

PART 2 PRODUCTS

2.1 TYPE PVC RACEWAYS AND FITTINGS

A Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics: UL 651 and UL Category Control Number DZYR.

B Schedule 80 Rigid PVC Conduit (PVC-80) and Fittings:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    a. Allied Tube & Conduit.
    b. Cantex, Inc.
    c. Carlon, ABB Electrification.

2. Dimensional Specifications: Schedule 80.
3. Options:
    a. Minimum Trade Size: Metric designator 16 (trade size 1/2).
    b. Markings: For use with maximum 90 deg C wire.

2.2 FITTINGS FOR CONDUIT, TUBING, AND CABLE

A Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.

B Fittings for Type PVC Raceways:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    a. Allied Tube & Conduit.
    b. Cantex, Inc.
    c. Carlon, ABB Electrification.
2. General Characteristics: UL 514B and UL Category Control Number DWTT.
3. Expansion and Deflection Fittings: UL 651.

C Fittings for Type EMT Raceways:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    a. ABB, Electrification Business.
    b. Allied Tube & Conduit; Atkore International.
    c. Crouse-Hinds; brand of Eaton, Electrical Sector.
    d. Southwire Company, LLC.
    e. Or approved equal.
2. General Characteristics: UL 514B and UL Category Control Number FKAV.
3. Options:
    a. Material: Steel.
    b. Coupling Method: Raintight compression coupling with distinctive color gland nut.

2.3 WIREWAYS AND AUXILIARY GUTTERS

A Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics: UL 870 and UL Category Control Number ZOYX.

2.4 CABINETS, CUTOUT BOXES, JUNCTION BOXES, PULL BOXES, AND MISCELLANEOUS ENCLOSURES

A Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics:
   a. Non-Environmental Characteristics: UL 50.
   b. Environmental Characteristics: UL 50E.

PART 3 EXECUTION

3.1 SELECTION OF RACEWAYS

A Unless more stringent requirements are specified in Contract Documents or manufacturers' written instructions, comply with NFPA 70 for selection of raceways. Consult District Engineer’s Representative for resolution of conflicting requirements.

B Outdoors:

1. Exposed and Subject to Severe Physical Damage: ERMC.
2. Exposed and Subject to Physical Damage: ERMC Corrosion-resistant EMT.
   a. Locations less than 2.5 m (8 ft) above finished floor.
3. Exposed and Subject to direct Sea Water Salt Spray: Corrosion-resistant EMT PVC-80.
4. Connection to lighting equipment): LFNC.

C Raceway Fittings: Select fittings in accordance with NEMA FB 2.10 guidelines.

1. ERMC: Provide threaded type fittings unless otherwise indicated.

3.2 SELECTION OF BOXES AND ENCLOSURES

A Unless more stringent requirements are specified in Contract Documents or manufacturers' written instructions, comply with NFPA 70 for selection of boxes and enclosures. Consult District Engineer’s Representative for resolution of conflicting requirements.

B Degree of Protection:

1. Outdoors:
   a. Locations Exposed to Hosedown: Type 4.
   b. Locations Subject to Potential Flooding: Type 6P.

3.3 INSTALLATION OF RACEWAYS

A Installation Standards:

1. Unless more stringent requirements are specified in Contract Documents or manufacturers' written instructions, comply with NFPA 70 for installation of

raceways. Consult District Engineer's Representative for resolution of conflicting requirements.

2. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
3. Comply with requirements in SECTION 26 05 29 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS for hangers and supports.
4. Comply with NECA NEIS 101 for installation of steel raceways.
5. Comply with NECA NEIS 111 for installation of nonmetallic raceways.
6. Install raceways square to the enclosure and terminate at enclosures without hubs with locknuts on both sides of enclosure wall. Install locknuts hand tight, plus one-quarter turn more.
7. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to metric designator 35 (trade size 1-1/4) and insulated throat metal bushings on metric designator 41 (trade size 1-1/2) and larger conduits terminated with locknuts.

B General Requirements for Installation of Raceways:

1. Complete raceway installation before starting conductor installation.
2. Provide stub-ups through the deck with coupling threaded inside for plugs, set flush with the deck. Plug coupling until conduit is extended above floor to final destination or a minimum of 2 ft (0.6 m) above the deck.
3. Install no more than equivalent of three 90-degree bends in conduit run. Support within 12 inch (300 mm) of changes in direction.
4. Make bends in raceway using large-radius preformed ells except for parallel bends. Field bending must be in accordance with NFPA 70 minimum radii requirements. Provide only equipment specifically designed for material and size involved.
5. Conceal conduit within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
6. Support conduit within 12 inch (300 mm) of enclosures to which attached.
7. Install raceway sealing fittings at accessible locations in accordance with NFPA 70 and fill them with listed sealing compound. For concealed raceways, install fitting in flush steel box with blank cover plate having finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings in accordance with NFPA 70.
8. Cut conduit perpendicular to the length. For conduits metric designator 53 (trade size 2) and larger, use roll cutter or a guide to make cut straight and perpendicular to the length. Ream inside of conduit to remove burrs.
9. Install pull wires in empty raceways. Provide polypropylene or monofilament plastic line with not less than 200 lb. (90 kg) tensile strength. Leave at least 12 inch (300

mm) of slack at both ends of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.

C Requirements for Installation of Specific Raceway Types:

1. Types EMT-A, ERMC-A, and FMC-A:
   a. Do not install aluminum raceways or fittings in contact with concrete or earth.
2. Types ERMC and IMC:
   a. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound that maintains electrical conductivity to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
3. Types PVC and EPEC:
   a. Do not install Type PVC or Type EPEC conduit where ambient temperature exceeds 122 deg F (50 deg C). Conductor ratings must be limited to 75 deg C except where installed in a trench outside buildings with concrete encasement, where 90 deg C conductors are permitted.
   b. Comply with manufacturer's written instructions for solvent welding and fittings.

D Raceway Fittings: Install fittings in accordance with NEMA FB 2.10 guidelines.

1. ERMC-S-PVC: Provide only fittings listed for use with this type of conduit. Patch and seal joints, nicks, and scrapes in PVC coating after installing conduits and fittings. Provide sealant recommended by fitting manufacturer and apply in thickness and number of coats recommended by manufacturer.
2. EMT: Provide compression, fittings. Comply with NEMA FB 2.10.
3. Flexible Conduit: Provide only fittings listed for use with flexible conduit type. Comply with NEMA FB 2.20.

3.4 INSTALLATION OF BOXES AND ENCLOSURES

A Provide boxes in wiring and raceway systems wherever required for pulling of wires, making connections, and mounting of devices or fixtures.

B Fasten junction and pull boxes to, or support from, structure. Do not support boxes by conduits.

C Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to ensure a continuous ground path.

D Boxes and Enclosures in Areas or Walls with Acoustical Requirements:

1. Seal openings and knockouts in back and sides of boxes and enclosures with acoustically rated putty.
2. Provide gaskets for wall plates and covers.

3.5 PROTECTION

A Protect coatings, finishes, and cabinets from damage and deterioration.

1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

3.6 CLEANING

A Boxes: Remove construction dust and debris from device boxes, outlet boxes, and floor-mounted enclosures before installing wall plates, covers, and hoods.

END OF SECTION 26 05 33

SECTION 26 05 53
IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of IDENTIFICATION FOR ELECTRICAL SYSTEMS including but not limited to: labels, tapes, ties, and identification for lighting and controls as shown on the Drawings and as specified in these Technical Specifications.

1.2 SUMMARY

A Section Includes:

1. Labels.
2. Tapes and stencils.
3. Cable ties.
4. Miscellaneous identification products.

B Related Requirements:

1.3 ACTION SUBMITTALS

A Product Data:

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for electrical identification products.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A Comply with ASME A13.1.

B Signs, labels, and tags required for personnel safety must comply with the following standards:

1. Safety Colors: NEMA Z535.1.
2. Safety Symbols: NEMA Z535.3.
3. Product Safety Signs and Labels: NEMA Z535.4.
4. Safety Tags and Barricade Tapes for Temporary Hazards: NEMA Z535.5.

C Comply with NFPA 70E requirements for arc-flash warning labels.

D Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, must comply with UL 969.

E Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.

2.2 COLOR AND LEGEND REQUIREMENTS

A Color-Coding for Phase- and Voltage-Level Identification, 1000 V or Less: Use colors listed below for ungrounded branch-circuit conductors.

1. Color must be factory applied or field applied for sizes larger than 8 AWG if authorities having jurisdiction permit.
2. Colors for 208Y/120 V Circuits:
    a. Phase A: Black.
    b. Phase B: Red.
    c. Phase C: Blue.
3. Colors for 240 V Circuits:
    a. Phase A: Black.
    b. Phase B: Red.

B Warning Label Colors:

C Equipment Identification Labels:

1. Black letters on white field.

2.3 LABELS

A Self-Adhesive Wraparound Labels: Preprinted, 3 mil (0.08 mm) thick, vinyl flexible label with acrylic pressure-sensitive adhesive.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    a. Brady Corporation.
    b. Ideal Industries, Inc.
    c. Marking Services Inc.
    d. Panduit Corp.
    e. Or approved equal.
2. Self-Lamination: Clear; UV-, weather- and chemical-resistant; self-laminating, protective shield over legend. Labels sized such that clear shield overlaps entire printed legend.
3. Marker for Labels:
    a. Machine-printed, permanent, waterproof, black ink recommended by printer manufacturer.

2.4 TAPES AND STENCILS

A Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    a. HellermannTyton.
    b. Ideal Industries, Inc.
    c. Marking Services Inc.
    d. Or approved equal.

B Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; not less than 3 mil (0.08 mm) thick by 1 to 2 inch (25 to 50 mm) wide; compounded for outdoor use.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    a. 3M.
    b. Brady Corporation.
    c. Ideal Industries, Inc.
    d. Marking Services Inc.
    e. Or approved equal.

2.5 CABLE TIES

A Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. HellermannTyton.
2. Ideal Industries, Inc.
3. Marking Services Inc.
4. Or approved equal.

B UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.

1. Minimum Width: 3/16 inch (5 mm).
2. Tensile Strength at 73 deg F (23 deg C) in accordance with ASTM D638: 12,000 psi (82.7 MPa).
3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).
4. Color: Black.

2.6 MISCELLANEOUS IDENTIFICATION PRODUCTS

A Paint: Comply with requirements in painting Sections for paint materials and application requirements. Retain paint system applicable for surface material and location (exterior or interior).

B Fasteners for Labels and Signs: Self-tapping, stainless steel screws or stainless steel machine screws with nuts and flat and lock washers.

PART 3 EXECUTION

3.1 PREPARATION

A Self-Adhesive Identification Products: Before applying electrical identification products, clean substrates of substances that could impair bond, using materials and methods recommended by manufacturer of identification product.

3.2 INSTALLATION

A Verify and coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and operation and maintenance manual. Use consistent designations throughout Project.

B Verify identity of item before installing identification products.

C Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and operation and maintenance manual.

D Apply identification devices to surfaces that require finish after completing finish work.

E System Identification for Raceways and Cables under 1000 V: Identification must completely encircle cable or conduit. Place identification of two-color markings in contact, side by side.

1. Secure tight to surface of conductor, cable, or raceway.

F Vinyl Wraparound Labels:

1. Secure tight to surface of raceway or cable at location with high visibility and accessibility.
2. Attach labels that are not self-adhesive type with clear vinyl tape, with adhesive appropriate to location and substrate.

G Self-Adhesive Labels:

1. Install unique designation label that is consistent with wiring diagrams, schedules, and operation and maintenance manual.

H Self-Adhesive Vinyl Tape: Secure tight to surface at location with high visibility and accessibility.

1. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for minimum distance of 6 inch (150 mm) where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding.

I Cable Ties: General purpose, for attaching tags, except as listed below:

J Outdoors: UV-stabilized nylon.

END OF SECTION 26 05 53

SECTION 26 09 23
LIGHTING CONTROL DEVICES

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of LIGHTING CONTROL DEVICES including but not limited to: timeclocks, controllers, and sensors for lighting and controls as shown on the Drawings and as specified in these Technical Specifications.

1.2 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 SUMMARY

A Section Includes:

1. Indoor occupancy and vacancy sensors.
2. Emergency shunt relay.
3. Conductors and cables.

B Related Requirements:

1. SECTION 26 27 26 - WIRING DEVICES for wall-box dimmers, non-networkable wall-switch occupancy sensors, and manual light switches.

1.4 ACTION SUBMITTALS

A Product Data: For each type of product.

B Shop Drawings:

1. Show installation details for the following:
    a. Vacancy sensors.
2. Interconnection diagrams showing field-installed wiring.
3. Include diagrams for power, signal, and control wiring.

1.5 INFORMATIONAL SUBMITTALS

A Coordination Drawings: Reflected ceiling plan(s) and elevations, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Structural members to which equipment will be attached.
2. Items penetrating finished ceiling, including the following:
    a. Luminaires.
    b. Sprinklers.

B Field quality-control reports.

C Sample Warranty: For manufacturer's warranties.

1.6 CLOSEOUT SUBMITTALS

A Operation and Maintenance Data: For each type of lighting control device to include in operation and maintenance manuals.

1.7 WARRANTY

A Manufacturer's Warranty: Manufacturer and Installer agree to repair or replace lighting control devices that fail(s) in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
    a. Faulty operation of lighting control software.
    b. Faulty operation of lighting control devices.
2. Warranty Period: Two year(s) from date of Substantial Completion.

PART 2 PRODUCTS

2.1 ELECTRONIC TIME SWITCHES

A Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Intermatic, Inc.
2. NSi Industries LLC.

B Electronic Time Switches: Solid state, programmable, with alphanumeric display; complying with UL 917.

1. Listed and labeled in accordance with NFPA 70, by a qualified electrical testing laboratory recognized by authorities having jurisdiction, and marked for intended location and application.
2. Contact Configuration: SPST.
3. Contact Rating: 20 A ballast load, 120/240 V(ac).
4. Programs:
    a. 2 channels; each channel is individually programmable with eight on-off set points on a 24-hour schedule.
5. Circuitry: Allow connection of a photoelectric relay as substitute for on-off function of a program on selected channels.
6. Astronomic Time: Selected channels.
7. Automatic daylight savings time changeover.

2.2 RGB DMX CONTROLLER

A Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Core Lighting.

B RGB DMX Controller: Solid state, constant voltage DMX512 decoder.

1. Listed and labeled in accordance with NFPA 70, by a qualified electrical testing laboratory recognized by authorities having jurisdiction, and marked for intended location and application.
2. Input:
   a. Cat 6 8-pin cabling. 12-36V DC.
3. Outputs:
   a. RGB 3-channel output to Cat 6 8-pin cabling. 12-36V DC. Maximum 5 amps per channel. Output wattage selectable 60W (12V) or 120W (24V).

2.3 CONDUCTORS AND CABLES

A Power Wiring to Supply Side of Remote-Control Power Sources: Not smaller than No. 12 AWG. Comply with requirements in SECTION 26 05 19 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES.

PART 3 EXECUTION

3.1 EXAMINATION

A Examine lighting control devices before installation. Reject lighting control devices that are wet, moisture damaged, or mold damaged.

B Examine walls and ceilings for suitable conditions where lighting control devices will be installed.

C Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION OF SENSORS

A Comply with NECA 1.

B Coordinate layout and installation of ceiling-mounted devices with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, smoke detectors, fire-suppression systems, and partition assemblies.

C Install and aim sensors in locations to achieve not less than 90 percent coverage of areas indicated. Do not exceed coverage limits specified in manufacturer's written instructions.

3.3 INSTALLATION OF WIRING

A Comply with NECA 1.

B Wiring Method: Comply with SECTION 26 05 19 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES. Minimum conduit size is 1/2 inch (13 mm).

C Wiring within Enclosures: Comply with NECA 1. Separate power-limited and nonpower-limited conductors in accordance with conductor manufacturer's written instructions.

D Size conductors in accordance with lighting control device manufacturer's written instructions unless otherwise indicated.

E Splices, Taps, and Terminations: Make connections only on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures.

3.4 IDENTIFICATION

A Identify components and power and control wiring in accordance with SECTION 26 05 53 - IDENTIFICATION FOR ELECTRICAL SYSTEMS.

1. Identify controlled circuits in lighting contactors.
2. Identify circuits or luminaires controlled by photoelectric and occupancy sensors at each sensor.

3.5 FIELD QUALITY CONTROL

A Perform the following tests and inspections:

1. Operational Test: After installing time switches and sensors, and after electrical circuitry has been energized, start units to confirm proper unit operation.
2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

B Lighting control devices will be considered defective if they do not pass tests and inspections.

C Prepare test and inspection reports.

3.6 DEMONSTRATION

A Train Owner's maintenance personnel to adjust, operate, and maintain lighting control devices.

END OF SECTION 26 09 23

SECTION 26 27 26
WIRING DEVICES

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of WIRING DEVICES including but not limited to: receptacles, switches, and wall plates for lighting and controls as shown on the Drawings and as specified in these Technical Specifications.

1.2 RELATED DOCUMENTS

A Drawings and Section 1C General Conditions - general provisions of the Contract, including Section 1D Special Conditions Specification Sections, apply to this Section.

1.3 SUMMARY

A Section Includes:

1. GFCI receptacles, 125 V, 20 A.
2. Toggle switches, 120/277 V, 20 A.
3. Wall plates.

1.4 DEFINITIONS

A BAS: Building automation system.

B EMI: Electromagnetic interference.

C GFCI: Ground-fault circuit interrupter.

D Pigtail: Short lead used to connect a device to a branch-circuit conductor.

E RFI: Radio-frequency interference.

F SPD: Surge protective device.

1.5 ACTION SUBMITTALS

A Product Data: For each type of product.

B Shop Drawings: List of legends and description of materials and process used for premarking wall plates.

1.6 INFORMATIONAL SUBMITTALS

A Field quality-control reports.

1.7 CLOSEOUT SUBMITTALS

A Operation and Maintenance Data: For wiring devices to include in all manufacturers' packing-label warnings and instruction manuals that include labeling conditions.

PART 2 PRODUCTS

2.1 GENERAL WIRING-DEVICE REQUIREMENTS

A Wiring Devices, Components, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.

B Comply with NFPA 70.

C RoHS compliant.

D Comply with NEMA WD 1.

E Device Color:

1. Wiring Devices Connected to Normal Power System: White unless otherwise indicated or required by NFPA 70 or device listing.

F Wall Plate Color: For plastic covers, match device color.

G Source Limitations: Obtain each type of wiring device and associated wall plate from single source from single manufacturer.

2.2 GFCI RECEPTACLES, 125 V, 20 A

A Duplex GFCI Receptacles, 125 V, 20 A:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
   a. Arrow Hart, Wiring Devices; Eaton, Electrical Sector.
   b. Leviton Manufacturing Co., Inc.
   c. Pass & Seymour; Legrand North America, LLC.
   d. Wiring Device-Kellems; Hubbell Incorporated, Commercial and Industrial.
   e. Or approved equal.
2. Description: Integral GFCI with "Test" and "Reset" buttons and LED indicator light. Two pole, three wire, and self-grounding.
3. Configuration: NEMA WD 6, Configuration 5-20R.
4. Type: Non-feed through.
5. Standards: Comply with UL 498, UL 943 Class A, and FS W-C-596.

2.3 TOGGLE SWITCHES, 120/277 V, 20 A

A Single-Pole Switches, 120/277 V, 20 A:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
   a. Arrow Hart, Wiring Devices; Eaton, Electrical Sector.
   b. Leviton Manufacturing Co., Inc.
   c. Pass & Seymour; Legrand North America, LLC.

d. Wiring Device-Kellems; Hubbell Incorporated, Commercial and Industrial.

e. Or Equal

2. Standards: Comply with UL 20 and FS W-S-896.

2.4 WALL PLATES

A Single Source: Obtain wall plates from same manufacturer of wiring devices.

B Single and combination types shall match corresponding wiring devices.

1. Plate-Securing Screws: Metal with head color to match plate finish.

2. Material for Finished Spaces: Stainless steel.

PART 3 EXECUTION

3.1 INSTALLATION

A Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.

B Coordination with Other Trades:

1. Protect installed devices and their boxes. Do not place wall finish materials over device boxes, and do not cut holes for boxes with routers that are guided by riding against outside of boxes.

2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.

C Conductors:

1. Do not strip insulation from conductors until right before they are spliced or terminated on devices.

2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.

3. The length of free conductors at outlets for devices shall comply with NFPA 70, Article 300, without pigtails.

4. Existing Conductors:

a. Cut back and pigtail, or replace all damaged conductors.

b. Straighten conductors that remain and remove corrosion and foreign matter.

c. Pigtailing existing conductors is permitted, provided the outlet box is large enough.

D Device Installation:

1. Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.

2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.

3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
4. Connect devices to branch circuits using pigtails that are not less than 6 inches (152 mm) in length.
5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, two-thirds to three-fourths of the way around terminal screw.
6. Use a torque screwdriver when a torque is recommended or required by manufacturer.
7. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
8. Tighten unused terminal screws on the device.
9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in yokes, allowing metal-to-metal contact.

E Receptacle Orientation:

1. Install ground pin of vertically mounted receptacles down, and on horizontally mounted receptacles to the right.

F Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.

G Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.

3.2 GFCI RECEPTACLES

A Install non-feed-through GFCI receptacles where protection of downstream receptacles is not required.

3.3 IDENTIFICATION

A Comply with SECTION 26 05 53 - IDENTIFICATION FOR ELECTRICAL SYSTEMS.

B Identify each receptacle with panelboard identification and circuit number. Use hot, stamped, or engraved machine printing with black-filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.

3.4 FIELD QUALITY CONTROL

A Test Instrument for Receptacles: Digital wiring analyzer with digital readout or illuminated digital-display indicators of measurement.

B Perform the following tests and inspections:

1. Test Instruments: Use instruments that comply with UL 1436.

2. Test Instrument for Receptacles: Digital wiring analyzer with digital readout or illuminated digital-display indicators of measurement.

C Tests for Receptacles:

1. Line Voltage: Acceptable range is 105 to 132 V.
2. Percent Voltage Drop under 15-A Load: A value of 6 percent or higher is unacceptable.
3. Ground Impedance: Values of up to 2 ohms are acceptable.
4. GFCI Trip: Test for tripping values specified in UL 1436 and UL 943.
5. Using the test plug, verify that the device and its outlet box are securely mounted.
6. Tests shall be diagnostic, indicating damaged conductors, high resistance at the circuit breaker, poor connections, inadequate fault-current path, defective devices, or similar problems. Correct circuit conditions, remove malfunctioning units and replace with new ones, and retest as specified above.

D Wiring device will be considered defective if it does not pass tests and inspections.

E Prepare test and inspection reports.

END OF SECTION 26 27 26

SECTION 26 56 19
LED EXTERIOR LIGHTING

PART 1 GENERAL

1.1 SCOPE OF WORK

A The Contractor shall furnish all labor, materials, equipment, tools, supplies and incidentals and shall perform all labor necessary to complete all of the work of LED EXTERIOR LIGHTING including but not limited to: luminaires, required supports, and connections for lighting and controls as shown on the Drawings and as specified in these Technical Specifications.

1.2 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 PORT DISTRICT (DISTRICT) PERFORMED WORK

A None.

1.4 SUMMARY

A Section Includes:

1. Exterior solid-state luminaires that are designed for and exclusively use LED lamp technology.
2. Luminaire supports.
3. Luminaire-mounted photoelectric relays.

B Related Requirements:

1. SECTION 26 09 23 - LIGHTING CONTROL DEVICES for automatic control of lighting, including time switches, photoelectric relays, and multipole lighting relays and contactors.

1.5 DEFINITIONS

A CCT: Correlated color temperature.

B CRI: Color rendering index.

C Fixture: See "Luminaire."

D IP: International Protection or Ingress Protection Rating.

E Lumen: Measured output of lamp and luminaire, or both.

F Luminaire: Complete lighting unit, including lamp, reflector, and housing.

1.6 ACTION SUBMITTALS

A Product Data: For each type of luminaire.

1. Arrange in order of luminaire designation.
2. Include data on features, accessories, and finishes.

3. Include physical description and dimensions of luminaire.
4. Lamps, include life, output (lumens, CCT, and CRI), and energy-efficiency data.
5. Photometric data and adjustment factors based on laboratory tests, complying with IES LM-80.
    a. Testing Agency Certified Data: For indicated luminaires, photometric data certified by a qualified independent testing agency. Photometric data for remaining luminaires shall be certified by manufacturer.
6. Wiring diagrams for power, control, and signal wiring.
7. Means of attaching luminaires to supports and indication that the attachment is suitable for components involved.

B Shop Drawings: For nonstandard or custom luminaires.

1. Include plans, elevations, sections, and mounting and attachment details.
2. Include details of luminaire assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include diagrams for power, signal, and control wiring.

C Product Schedule: For luminaires and lamps. Use same designations indicated on Drawings.

D Delegated-Design Submittal: For luminaire supports.

1. Include design calculations for luminaire supports and seismic restraints.

1.7 INFORMATIONAL SUBMITTALS

A Coordination Drawings: Plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Luminaires.
2. Structural members to which equipment and luminaires will be attached.
3. Underground utilities and structures.
4. Existing underground utilities and structures.
5. Above-grade utilities and structures.
6. Vertical and horizontal information.

B Qualification Data: For testing laboratory providing photometric data for luminaires.

C Seismic Qualification Certificates: For luminaires, accessories, and components, from manufacturer.

1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.

3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

D Product Certificates: For each type of the following:

1. Luminaire.
2. Photoelectric relay.

E Product Test Reports: For each luminaire, for tests performed by a qualified testing agency.

F Source quality-control reports.

G Sample warranty.

1.8 CLOSEOUT SUBMITTALS

A Operation and Maintenance Data: For luminaires and photoelectric relays to include in operation and maintenance manuals.

1. Provide a list of all lamp types used on Project. Use ANSI and manufacturers' codes.
2. Provide a list of all photoelectric relay types used on Project; use manufacturers' codes.

1.9 QUALITY ASSURANCE

A Luminaire Photometric Data Testing Laboratory Qualifications: Luminaire manufacturers' laboratory that is accredited under the NVLAP for Energy Efficient Lighting Products.

B Provide luminaires from a single manufacturer for each luminaire type.

C Each luminaire type shall be binned within a three-step MacAdam Ellipse to ensure color consistency among luminaires.

D Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

1.10 DELIVERY, STORAGE, AND HANDLING

A Protect finishes of exposed surfaces by applying a strippable, temporary protective covering prior to shipping.

1.11 FIELD CONDITIONS

A Verify existing and proposed utility structures prior to the start of work associated with luminaire installation.

B Mark locations of exterior luminaires for approval by Architect prior to the start of luminaire installation.

1.12 WARRANTY

A Warranty: Manufacturer and Installer agree to repair or replace components of luminaires that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures, including luminaire support components.

b. Faulty operation of luminaires and accessories.

c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

2. Warranty Period: 2 year(s) from date of Substantial Completion.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A Seismic Performance: Luminaires shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

B Seismic Performance: Luminaires and lamps shall be labeled vibration and shock resistant.

1. The term "withstand" means "the luminaire will remain in place without separation of any parts when subjected to the seismic forces specified and the luminaire will be fully operational during and after the seismic event."

2.2 LUMINAIRE REQUIREMENTS

A Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B NRTL Compliance: Luminaires shall be listed and labeled for indicated class and division of hazard by an NRTL.

C UL Compliance: Comply with UL 1598 and listed for wet location.

D CRI of minimum 80. CCT of 4000 K.

E L70 lamp life of 50,000 hours.

F Lamp Rating: Lamp marked for outdoor use.

2.3 MATERIALS

A Metal Parts: Free of burrs and sharp corners and edges.

B Sheet Metal Components: Stainless steel. Form and support to prevent warping and sagging.

C Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position. Doors shall be removable for cleaning or replacing lenses.

D Diffusers and Globes:

1. Acrylic Diffusers: 100 percent virgin acrylic plastic, with high resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.

E Lens and Refractor Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.

F Reflecting surfaces shall have minimum reflectance as follows unless otherwise indicated:

1. White Surfaces: 85 percent.
2. Specular Surfaces: 83 percent.
3. Diffusing Specular Surfaces: 75 percent.

G Housings:

1. Rigidly formed, weather- and light-tight enclosure that will not warp, sag, or deform in use.
2. Provide filter/breather for enclosed luminaires.

H Factory-Applied Labels: Comply with UL 1598. Include recommended lamps. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.

1. Label shall include the following lamp characteristics:
   a. "USE ONLY" and include specific lamp type.
   b. Lamp diameter, shape, size, wattage and coating.
   c. CCT and CRI for all luminaires.

2.4 FINISHES

A Variations in Finishes: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

B Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.

C Factory-Applied Finish for Aluminum Luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

1. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

2.5 LUMINAIRE SUPPORT COMPONENTS

A Comply with requirements in SECTION 26 05 29 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS for channel and angle iron supports and nonmetallic channel and angle supports.

PART 3 EXECUTION

3.1 EXAMINATION

A Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B Examine roughing-in for luminaire electrical conduit to verify actual locations of conduit connections before luminaire installation.

C Examine walls, roofs, for suitable conditions where luminaires will be installed.

D Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 GENERAL INSTALLATION REQUIREMENTS

A Comply with NECA 1.

B Use fastening methods and materials selected to resist seismic forces defined for the application and approved by manufacturer.

C Install lamps in each luminaire.

D Fasten luminaire to structural support.

E Supports:

1. Sized and rated for luminaire weight.
2. Able to maintain luminaire position after cleaning and relamping.
3. Support luminaires without causing deflection of finished surface.
4. Luminaire-mounting devices shall be capable of supporting a horizontal force of 100 percent of luminaire weight and a vertical force of 400 percent of luminaire weight.

F Wiring Method: Install cables in raceways. Conceal raceways and cables.

G Install luminaires level, plumb, and square with finished grade unless otherwise indicated.

H Coordinate layout and installation of luminaires with other construction.

I Comply with requirements in SECTION 26 05 19 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES and SECTION 26 05 33 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS for wiring connections and wiring methods.

3.3 CORROSION PREVENTION

A Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum by insulating fittings or treatment.

3.4 IDENTIFICATION

A Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in SECTION 26 05 53 - IDENTIFICATION FOR ELECTRICAL SYSTEMS.

3.5 FIELD QUALITY CONTROL

A Adjust luminaires that require field adjustment or aiming. Include adjustment of photoelectric device to prevent false operation of relay by artificial light sources, favoring a north orientation.

B Inspect each installed luminaire for damage. Replace damaged luminaires and components.

C Perform the following tests and inspections:

1. Operational Test: After installing luminaires, switches, and accessories, and after electrical circuitry has been energized, test units to confirm proper operation.
2. Verify operation of photoelectric controls.

D Illumination Tests:

1. Measure light intensities at night. Use photometers with calibration referenced to NIST standards. Comply with the following IES testing guide(s):
   a. IES LM-5.
   b. IES LM-50.
   c. IES LM-52.
   d. IES LM-64.
   e. IES LM-72.
2. Operational Test: After installing luminaires, switches, and accessories, and after electrical circuitry has been energized, test units to confirm proper operation.

E Luminaire will be considered defective if it does not pass tests and inspections.

F Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.

3.6 ADJUSTING

A Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting the direction of aim of luminaires to suit occupied conditions. Make up to two visits to Project during other-than-normal hours for this purpose. Some of this work may be required during hours of darkness.

1. During adjustment visits, inspect all luminaires.

B Parts and supplies shall be manufacturer's authorized replacement parts and supplies.

END OF SECTION 26 56 19

Addendum No. 01 to Spec. No. 2022-07

SAN DIEGO UNIFIED PORT DISTRICT
Procurement Services Department
1400 Tidelands Avenue
National City, California 91950
(619) 686-6392

TO: All Prospective Bidders

FROM: Ryan L. Harris
Procurement Supervisor

DATE: August 12, 2022

SUBJECT: **Addendum No. 01 to Specification No. 2022-07 for Imperial Beach Pier Enhancements Phase 2**

The Bid Opening Date has <u>NOT</u> been changed.

at

San Diego Unified Port District

General Services Building, Second Floor

1400 Tidelands Avenue

National City, California 91950

on

August 31, 2022 @ 2:00 P.M.

Make all revisions to the specifications and contract documents as stated herein. Insofar as original specifications and other documents are at variance with this Addendum, the Addendum shall govern.

This Addendum consists of one hundred and thirty (130) page(s).

SPECIFICATION CHANGES:

1. Cover Page

   Revise: Q&A Due Date

   Questions Due By: August 17, 2022 @ 1:00 P.M.

   All references to Q&A Due date shall reflect this change.

2. Notice Inviting Bids – Engineer's Estimate

   REVISE: The Engineer's estimate for this project is **$1,150,000.00.**

   All references to Engineer's estimate shall reflect this amount.

3. SECTION 01 27 00 MEASUREMENT AND PAYMENT, Page 36 of 162

   ADD:

   1.13 ADDITIVE BID ITEM NO. 01 – PIER END FENCING REPLACEMENT

   A. This item pertains to the fencing replacement work at the end of pier which is clouded in the Addendum No. 1 plan set. No unit measurement shall be made for this item.

   B. Payment for Pier End fencing Replacement will be made at the lump sum price for this item, which price shall constitute full compensation for furnishing all labor, materials, equipment, tools, and incidentals; and for doing all the work of Pier End Fencing Replacement, complete in place, including but not limited to the demolition of existing timber railing and chain link fencing, and installation of stainless steel cable fencing and gates, and other associated work, as shown/clouded in the Addendum No. 1 Plans, and as specified in the contract specifications, as applicable to this item of work.

   C. Payment will be based on the percent complete of this item.

4. SECTION 05 50 00 ARCHITECTURAL METAL FABRICATIONS, Subsection 1.1 - Scope of Work, Page 95 of 162

ADD to end of 1.1.A.:

The requirements of this section shall also apply to stainless steel fencing and gates at the pier end (shown on Addendum No. 1).

5. SECTION 05 50 00 ARCHITECTURAL METAL FABRICATIONS, Subsection 1.5 – Action Submittals, Page 96 of 162

ADD:

B.4. Stainless Steel Fencing and Gates at the pier end.

6. SECTION 05 50 00 ARCHITECTURAL METAL FABRICATIONS, Subsection 1.8 – Field Mock-Up., Page 97 of 162

ADD:

A.3. Combined 6'-high stainless-steel posts and cables (pier end condition) mockup to include 4 linear feet of fencing including one corner condition with a minimum of 2 posts.

7. SECTION 05 50 00 ARCHITECTURAL METAL FABRICATIONS, Subsection 3.1 Installation, General, Page 100 of 162

ADD:

F Install gates level, plumb, and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Install surface-mounted items in timber decking and stringers for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

8. SECTION 05 73 00 STAINLESS STEEL WIRE ROPE RAILING SYSTEMS, Subsection 1.1 – Scope of Work, Page 106 of 162

   ADD to end of 1.1.A.:

   The requirements of this section shall also apply to stainless steel fencing and gates at the pier end (shown on Addendum No. 1).

9. SECTION 07 – APPENDICES & EXHIBITS

   ADD:

   EXHIBIT D - General Permit, Army Corps of Engineers

DRAWING CHANGES:

1. DRAWING No. IB-2022-01:

   REPLACE:

   Replace Drawing No. IB-2022-01 with revised Drawing No. IB-2022-01 Including Additive Bid Item No. 01; New work has been clouded for clarity.

BID SCHEDULE CHANGES:

1. BID SCHEDULE:

   REPLACE: Replace with Bid Schedule (Revised August 12, 2022)

EXHIBIT D

ARMY CORPS OF ENGINEERS REGIONAL GENERAL PERMIT

DEPARTMENT OF THE ARMY
REGIONAL GENERAL PERMIT
NO. 72
PORT OF SAN DIEGO MAINTENANCE AND REPAIR OF PORT PIERS, WHARVES, AND DOCKS

Permittee: Port of San Diego Planning and Greenport (Port); Attn: Eileen Maher

Project Name: Regional General Permit Number 72 - Port of San Diego Regional General Permit for Maintenance and Repair of Port piers, wharves, and docks as shown in the attached drawings.

Permit Number: SPL-2019-00478-RRS

Issuing Office: Los Angeles District

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers and/or District Engineer (DE) having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

After you receive written approval that your project complies with the terms and conditions of this Regional General Permit (RGP) from this office, you are authorized to perform work in accordance with the General Conditions and any project specific conditions specified below.

Project Description: Work to be covered under the renewed RGP No. 72 per Table 1 would be at the locations shown under locations and include: routine repair of maintenance of docks, wharves, piers, and piles within navigable waters of the United States (U.S.) both in San Diego Bay and in the Pacific Ocean at the Imperial Beach Pier; like-for-like repair or replacement of damaged and broken wooden, concrete, and/or plastic pier and fender piles, as needed; and like-for-like repair or replacement of pier, decks, deck boards, blocks, camel logs, installation of marine fenders, Best Management Practices/Environmental protection measure work items, and

other ancillary items, as needed. No work approved under this permit would result in additional shading or overwater coverage. The work shall be done in association with the Port of San Diego Master Plan and the Regional General Permit Nos. 72 renewal application to the Corps (see attached drawings).

[X] To construct structures and/or conduct structural work in or affecting "navigable waters of the United States" pursuant to Section 10 of the Rivers and Harbors Act of 1899.

Project Location: Routine maintenance work under Regional General Permit Nos. 72 (RGP 72 or RGP) occurs at various locations (shown below for each site) in San Diego Bay and the Pacific Ocean per the attached permit drawings (sheets 1-10) for piers, wharves, docks, as previously permitted under RGP No. 72 within the City of San Diego). The work in navigable waters shall perform routine maintenance work at the following structures per the attached drawings referenced under each sheet as follows:

a) Chula Vista Bayfront: Fishing Pier and Launching Ramp Floating Docks (Sheet 9);
b) Coronado Bayfront: Ferry Landing Pier; Seawall, and Peohe's Floating Dock (Sheet 7);
c) Imperial Beach: Imperial Beach Fishing Pier (Sheet 10);
d) Harbor Island and Embarcadero Crescent: two seawalls, Dinghy Docks, Pier, Wharves, Grape St. Piers 1, 2, and 3 (formerly known as Chevron Pier) (Sheet 3);
e) National City Marine Terminals and Bayfront: National City Marine Terminal Berths 24-1 through 24-5, 24-10 and 24-11, the Fishing Pier, Boat Launch Ramp Floating Docks, and Pepper Park Floating Dock (Sheet 8);
f) Embarcadero Wharf: Embarcadero Wharf seawalls, B St. Pier; the Viewing Platform, Broadway Pier, Navy Pier (Sheet 4);
g) Tuna Harbor and Embarcadero Marina Parks: Tuna Harbor Fleet Landing, Fish Unloading Pier, Tuna Harbor Pier, Fish Harbor Pier; Tuna Boat Berthing Facility, Overwater Structure, Seaport Village seawall, Embarcadero Marine Park North and South Piers (Sheet 5);
h) Shelter Island Docks and piers: Driscoll's Wharf, Piers & Floating Docks (La Playa Piers), Shelter Island Viewing Platform, Boat Launch Breakwaters and Floating Docks, Fishing Pier & Floating Dock, Transient Vessel Dock, and Harbor Police Dock (Sheet 2);
i) Tenth Avenue Marine Terminal: Tenth Avenue Marine Terminal Berths 10-1 through 10-8, Seawall, Mole Pier, High Speed Ferry Dock, Crosby Street Berthing Pier, and Public Recreational Pier (Sheet 6).

Table 1 – RGP 72 Maintenance and Repair Activities

This RGP authorizes the following activities with the associated limitations as shown in the Project Location:

Category	**Limits of Impact**
A Routine repair and maintenance of docks, wharves, bulkheads, seawalls, and piers.	Like for like replacement with no additional shading, overwater coverage, or fill. Like for like replacement with minor deviations for design, seismic, and safety standards.
B Utility Lines.	Like for like replacement with minor deviations for design, seismic, and safety standards.
C Repair or replacement of damaged and broken wooden, concrete, and/or plastic pier and fender piles.	Like for like replacement with minor deviations for design, seismic, and safety standards. Pile driving limited to impact/vibratory and jetting with turbidity/marine mammal /Green Sea Turtle monitoring and work cessation as
D Repair and replacement of pier or dock decks, deck boards, blocks, camel logs, and installation of marine fenders.	Like for like replacement with minor deviations for design, seismic standards, and safety standards.
E Best Management Practices (BMPs)/Environmental protection measure work items such as attendant vessels, boats, rafts, barges, debris nets, security booms, turbidity curtains, and other.	Work limited to control floating debris and other water quality protection measures for turbidity, spills, navigational hazards, and safety standards.

F Replacement and installation of ancillary items ncluding but not limited to other structural, mechanical, and electrical components needed for he existing functions of the Docks, Piers, Wharves, nd Seawalls.	Like for like replacement with minor deviations for safety design changes, seismic standards, navigational protection measures, tide gauge repairs, signage and safety standards.

The following project description information provides greater detail on the activities authorized under each category in Table 1:

A- Routine repair and maintenance of docks, wharves, bulkheads, seawalls, and piers

Like for like structural repair and maintenance work of docks, wharves, bulkheads, seawalls, and piers including deck repairs and maintenance with all necessary vessels, barges, and BMPs/Environmental protection measures to perform above work. No dredging, fill or increase in overwater coverage or shading is authorized.

B- Utility Lines

Work activities would include extension or repair of utility lines, related appurtenances, and utility facilities. Also included are activities related to testing, inspection, maintenance, repair, and replacement of existing utility lines, utility facilities, and appurtenances. Specific work activities include, but are not limited to: replacement of utility lines, valve repair, utility pole removal/replacement; light poles, monitoring, production, and wells and well facility repairs, installation, and replacement; precast manhole and handhole installation or repair, concrete pad installation, bollard installation, fencing, cathodic protection, anode replacement, repair or replacement of blow-offs, air-vacuums, hydrants, backflow preventers, and other accessories.

C- Repair/replacement of damaged/ broken wooden, concrete, and/or plastic pier and fender piles.

Work activities include the repair or replacement of existing damaged/broken wooden, creosote, concrete, and plastic, pier and wharf piles and fender piles and other structures associated with activities. Pile driving activities include impact/vibratory pile driving and hydro-jetting/jetting methods as long as monitoring measures are included for marine mammals and Green Sea Turtles per the special conditions. Other pile removal methods for piles that have been damaged or broken off can be employed as approved by the Corps.

D- Repair and replacement of pier or dock decks, deck boards, blocks, camel logs, and installation of marine fenders

Work activities include the repair or replacement of existing damaged/broken wooden, metal, concrete, and plastic, pier/wharf/docks structural members and decks, camels, sheet piles for bulkhead repairs, camels, camel logs, and marine fenders or other navigational improvements

for existing piers, wharves, and docks as approved by the Corps.

E- Best Management Practices (BMPs)/Environmental protection measure work items including attendant vessels, boats, rafts, barges, debris nets, security booms, turbidity curtains, booms, and other Stormwater BMPs.

Work limited to control floating debris and other water quality protection measures for turbidity, debris cleanup, and water quality safety standards.

F Replacement and installation of ancillary items including but not limited to other structural, mechanical, and electrical components needed for the Docks, Piers, Wharves, and Seawalls.

Work limited to structural repair and replacement work for ancillary items including but not limited to other structural, mechanical, electrical components, protection of navigation measures, tidal gages, signage, and safety measures to meet safety standards.

Notification
This RGP requires notification of all activities to be covered under Table 1 and RGP 72. Work may not commence until the Corps has received written notification from the Port (and if needed for an individual action the Corps needs to consult with NMFS, USFWS, and or the California Regional Water Quality Control Board – San Diego Region) and then the Corps has approved the action in writing via email or letter.

Definitions:

1. Best Management Practices (BMPs): BMPs are defined in the Port of San Diego's Coastal Determinations as the Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities Conducted by the San Diego Unified Port District in their Coastal Determination approved on June 19, 2019.

2. CZMA: Coastal Zone Management Act compliance with the Port of San Diego Coastal Determination made for project activities that comply with Port approved Master Plan under their existing Coastal Development Permit with the California Coastal Commission.

3. EFH: Essential Fish Habitat as regulated by the National Marine Fisheries Service (NMFS) under the Magnuson Stevens Act and all NMFS implementing regulations.

4. ESA: Federal Endangered Species Act and all implementing regulations of the U.S. Fish and Wildlife Service (USFWS) and NMFS.

5. NHPA: National Historic Preservation Act and all implementing regulations under Appendix C.

6. SHPO: California State Historic Preservation Office.

Permit General Conditions:

1. **Time Period Covered:** This RGP shall expire on **December 4, 2024**. Notification to Proceed (NTP) under this RGP shall be valid for two years from the date of issuance.

2. **Notification Requirements:** Activities described above that require notification shall be submitted to the Corps Regulatory Division at least 14 days for Notification prior to initiation of activity unless otherwise approved by the Corps due to potential imminent threats to life or property.

3. **Contents of the RGP Notification Form (Preconstruction Notification Form (PCN form)**: The notification should be in writing and include the following information:

    a. The name, address and telephone number of the Port's designated point of contact and their address and telephone number;

    b. The latitude/longitude coordinates (in decimal degree format) of the location of the proposed project;

    c. A vicinity map at an appropriate scale depicting the project location, the location where the proposed work will take place, the boundary and approximate acreage of the project area at the project location (includes all permanent and temporary work areas), and the boundary and approximate acreage of the impact within the project area;

    d. Plan and elevation views of the proposed work;

    e. Category of activity this project falls under (Table 1);

    f. Compensatory mitigation description, if required under the California Eelgrass Mitigation Policy (CEMP); or the Corps Mitigation Rule (33 CFR 332).

    g. Project description detailing the following:

        i. Overall project description;
        ii. Proposed work in navigable waters of the United States including:
            1. The acreage of navigable waters of United States that would be affected with any impacts to wetlands or eelgrass included;
            2. Project schedule, including the estimated time required to initiate and complete work in waters of the United States;
            3. The equipment, vessels, barges, derrick barges, pile driving equipment, staging areas, BMPs, and anchoring plan.

4. Planned avoidance and minimization measures.

h. Proposed work in non-jurisdictional areas directly related to work in waters of United States (e.g., establishment of staging areas or construction of access roads/ramps in adjacent uplands);

i. Documentation of completed EFH, ESA, SHPO, NHPA, CZMA;

j. Delineation per "Minimum Standards for Acceptance of Aquatic Delineation Report, issued in Public Notice by USACE Los Angles District March 16, 2007, and/or determination through RGL 16-01 issued by USACE October 2016, and jurisdictional limits of the Mean High Water mark as furnished by the Corps under Section 10 of the Rivers and Harbors Act.

4. **Alternative Form of Notification:** The standard Application for Department of the Army Permit (Form ENG 4345), available from the District's Website at (http://www.spl.usace.army.mil/regulatory/eng4345a.pdf).

5. **Mitigation:** To ensure all compensatory mitigation is commensurate with the level of impact, the Notification will include a description of the compensatory mitigation if required per CEMP or the Corps Mitigation Rule. The proposed mitigation will follow the Compensatory Mitigation for Losses of Aquatic Resources (33 C.F.R. 332) and the South Pacific Division SOP (12501-SPD Regulatory Program Standard Operating Procedure for Determination of Mitigation Ratios).

6. **Eligibility Evaluation Criteria:** In reviewing whether the proposed activity qualifies for authorization under the RGP, the DE will determine whether the proposed activity:
   a. is located on piers, wharves, and docks covered under the locations shown under Location in this RGP 72;
   b. is within one of the categories identified in Table 1 of this RGP ;
   c. would result in more than minimal individual or cumulative environmental effects. (the DE will consider any mitigation the applicant has included in the project description in determining whether the net adverse environmental effects for the proposed work are minimal); and
   d. may be contrary to the public interest.

7. D**istrict Engineer's Decision**:
   a. **Notice to Proceed (NTP)**: NTP *authorizes the applicant to initiate work in waters of United States on the date of issuance.* The NTP is *valid for up to two years from the date of issuance*. If applicable, the NTP would also include as attachments, agreements or

permits from other Federal or State agencies (e.g., biological opinions from the USFWS, memoranda of agreement if applicable). If applicable, the NTP would include compliance with the Section 401 water quality certification issued for this RGP. The NTP would incorporate by reference all terms and conditions of the attached documents as project- specific special conditions. An NTP will be issued if the DE determines that the proposed activity:

i. is eligible for the RGP (i.e., meets evaluation criteria 6(a) through 6(d) above);
ii. complies with other applicable federal laws such as the Endangered Species Act or the National Historic Preservation Act;
iii. implements the Section 401 water quality certification authorized by the California Regional Board WQC (R9 2019-0140:858331 dated November 22, 2019;
iv. has been issued a federal consistency determination by the Port or the California Coastal Commission pursuant to the Coastal Zone Management Act (applicable only to those projects located within the coastal zone or projects *immediately* outside the coastal zone where the proposed work could affect uses or resources of the coastal zone in the state of California).

b. The DE shall make a decision within 14 calendar days of receipt of the Corps Notification.
   i. The decision will be a written NTP; or
   ii. No response from the DE within 14 calendar days will be an approval of the project.

8. **Water Quality Certifications**: Permittee shall implement and abide by the project-specific Section 401 Water Quality Certification (WQC) from the California Regional Water Quality Control Board – San Diego Region (CRWQCB) dated November 22, 2019 (R9 2019-0140:858331).

9. **Coastal Zone Management**: Pursuant to the Federal Coastal Zone Management Act (CZMA), the Port for projects affecting uses or resources of the coastal zone shall comply with the Port's CZMA approval dated June 19, 2019 under the Port's Master Plan Coastal Development Permit.

10. **Endangered Species**: No activity is authorized under this RGP which is likely to jeopardize the continued existence of a threatened or endangered species or destroy or adversely modify designated critical habitat as identified under the Federal Endangered Species Act (ESA) unless Section 7 consultation addressing the effects of the proposed activity has been completed.

    a. Authorization of an activity by the RGP does NOT authorize the "take" of a listed

threatened or endangered species, as defined under the Federal ESA. The Corps initiated Section 7 ESA consultation for the federally-listed as endangered green sea turtle (*Chelonia mydas;* GST) with NMFS on July 9, 2019 with the Corps determination that the project may affect but is not likely to adversely affect GST within the RGP 72 project areas. NMFS concurred with the Corps' NLAA determination in their letter dated September 17, 2019 and therefore the permitttee must implement and abide by the NMFS' GST NLAA determination.

b. Permittee shall avoid impacts to the California least tern (*Sterna antillarum browni;* CLT) and avoid work during the CLT nesting season (April 1st to September 15th) with monitoring and work cessation if work occurs in the CLT nesting season and CLT are present in the project area with Corps and USFWS coordination as needed to ensure ESA compliance for CLT impacts.

11. **Historic Properties**: The project area has been previously disturbed by previous pier and wharf construction and previous dredging and it is presumed that any historic properties that may have been present no longer exist per Appendix C(3)(b)(1). The Corps has made a determination that there is no potential for any impacts to cultural resources due to prior disturbances.

12. **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 that 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.

    a. Currently there are no designated Wild and Scenic River systems in San Diego Bay or the Pacific Ocean.

13. **Disposal of Project materials and debris:** All demolition materials and debris shall be disposed at upland disposal sites. This RGP does not authorize disposal of excavated debris and sediment in any waters of the United States.

14. **Stream Channelization:** This RGP does not authorize stream channelization. Stream channelization is the manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes (Federal Register Vol. 72, No. 47, p. 11197). Examples include but are not limited to conversion of a natural stream into a concrete-lined channel.

15. **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.

16. **Regional and Case-by-Case Conditions**: The activity must comply with Regional Conditions for the Los Angeles District (see Attachment B) and with any case-specific conditions added to the NTP by this office.

17. **Erosion and Siltation Controls**: When feasible, erosion and siltation controls, such as siltation or turbidity curtains, and/or straw (or hay) bales or other means designed to minimize turbidity in the bay or ocean shall be used and maintained in effective operating condition during construction unless conditions preclude their use, or if conditions are such that the proposed work would not increase turbidity levels adversely above the background level existing at the time of the work.

18. **Equipment and Barges/Vessels/BMPs**: When feasible, and if personnel would not be put into any additional potential hazard, any heavy equipment, barges, rafts, and vessels, working near wetlands or eelgrass areas must employ measures to avoid and minimize eelgrass or wetlands disturbance such as providing eelgrass surveys and/or wetlands delineations to the Corps with measures for any appropriate avoidance or minimization of wetlands or eelgrass.

19. **Aquatic Life Movements:** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the bay or the ocean, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water.

20. **Spawning Areas:** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction of an important spawning area are not authorized.

21. **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.

22. **Suitable Material:** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act). No dredging or discharge of fill is authorized under RGP 72.

23. **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.

24. **Proper Maintenance**: Any structure or fill authorized by this RGP shall be maintained, including maintenance to ensure public safety, unless it is later determined that the

structure is further contributing to other adverse conditions to private or public property. In such situations, corrective measures will be taken to rectify these adverse conditions, including removal and/or redesign of the original corrective action, or appropriate mitigation as determined through coordination with the permittee and the appropriate Federal and State agencies.

25. **Vernal Pools:** No activity may impact vernal pools under this permit.

26. **Reporting:** The Port shall submit an annual report by March 15 each year of the entire duration of the 5 year permit documenting each activity authorized by this RGP. The annual report shall list each project that utilized this RGP and shall include for each project: start and end dates; permanent and temporary impact acreage; and mitigation acreage, if applicable. The report shall also include projects which were inspected for compliance purposes. The compliance section shall include a document that verifies the project is or is not in compliance with the conditions of this permit.

Special Conditions:

Section 10 (Work and Structures in Navigable Waters of the United States):

1. INTERFERENCE WITH NAVIGATION: 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.

2. LIMITATIONS: No other modifications or work shall occur to the structure permitted herein.

3. CLEAN CONSTRUCTION PRACTICES: 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, hazardous/toxic/radioactive/munitions from construction or dredging or disposal 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.

4. COMMENCEMENT NOTIFICATION: The Permittee shall notify the Corps Regulatory Division of the date of commencement of work in navigable waters of the United States no less than 14 calendar days prior to commencing work (unless otherwise approved by the Corps), and shall notify the Corps of the date of completion of operations at least five (5) calendar days prior to such completion.

5. POST-CONSTRUCTION AS-BUILT SURVEY(S): 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 (NOAA) 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, Computer-aided Design (CAD), or Geographic Information System (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 U.S. 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.

6. OBSTRUCTIONS: 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.

Cultural Resources:

7. Pursuant to 36 C.F.R. section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the Permittee shall notify the Corps' Archeology Staff within 24 hours (Danielle Storey at 213-452-3855 OR Daniel Grijalva at 760 602-4834 and Robert Smith at (760) 602-4831). The Permittee shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The Permittee shall not resume construction in the area surrounding the potential cultural resources until the Corps Regulatory Division re-authorizes project construction, per 36 C.F.R. section 800.13.

8. Incidents where any individuals of fish, whale, abalone, sea turtle, coral, or marine plant species listed by NOAA Fisheries under the Endangered Species Act appear to be injured or killed as a result of discharges of dredged or fill material into waters of the United States or structures or work in navigable waters of the United States authorized by this permit shall be reported to NOAA Fisheries, Office of Protected Resources at (301) 713-1401 and the Regulatory Office of the Los Angeles District of the U.S. Army Corps of Engineers at 760 602-4831. The finder should leave the plant or animal alone, make note of any circumstances likely causing the death or injury, note the location and number of individuals involved and, if possible, take photographs. Adult animals

should not be disturbed unless circumstances arise where they are obviously injured or killed by discharge exposure, or some unnatural cause. The finder may be asked to carry out instructions provided by NOAA Fisheries, Office of Protected Resources, to collect specimens or take other measures to ensure that evidence intrinsic to the specimen is preserved. Permittee shall also implement and abide by the NMFS letter dated September 17, 2019 to the Corps for impacts to the federally-listed as endangered green sea turtle (*Chelonia mydas;* GST).

9. Permittee shall implement and abide by the Port of San Diego's Coastal Development Permit and CZMA determination letter and Master Plan approval including the Board of Commissioners approval of the Environmental Standards and BMPs dated June 18, 2019.

10. Permittee shall submit the Corps annual report for each year of this five year RGP 72 permit to the NMFS (EFH POC) by March 15th of each year for the duration of the five year permit.

NOTIFICATIONS TO U.S. COAST GUARD

11. To ensure navigational safety, the permittee shall provide appropriate notifications (Local Notice to Mariners) to the U.S. Coast Guard as described below:

A) At least 15 calendar days prior to commencing work and as project information changes, the Permittee shall notify the Commander, 11th Coast Guard District ('dpw') and the U.S. Coast Guard, Sector LA-LB, Captain of the Port (COTP). The notification shall be provided by e-mail with the following information:

1) Project description including the type of operation (i.e. dredging, beach nourishment, upland disposal, ocean disposal, construction, etc).
2) Location of operation, including Latitude / Longitude (NAD 83).
3) Work start and completion dates and the expected duration of operations. The U.S. 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 Local Notice to Mariners: "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. Not less than 30 calendar days in advance of operating any equipment adjacent to any aids to

navigation that require relocation or removal, the Permittee shall notify, in writing, the Eleventh U.S. Coast Guard District and the Corps Regulatory Division. The Permittee and its contractor(s) 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) The Permittee is prohibited from establishing private aids to navigation in navigable waters of the United States until authorized to do so by the Corps Regulatory Division and the U.S. Coast Guard. Should the Permittee determine the work requires the temporary placement and use of private aids to navigation in navigable waters of the United States, the Permittee shall submit a request in writing to the Corps Regulatory Division and the U.S. Coast Guard (contact information provided below).

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.

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

U.S. Coast Guard
Sector San Diego, Attn: Briana Biagas
2710 N. Harbor Dr.
San Diego, CA 92101
Attn: Ports and Waterways Division
Tel : (619) 278-7262
FAX: (619) 278-7279
Email: Robert.D.Cole@uscg.mil

12. Permittee shall implement and abide by the Essential Fish Habitat (EFH) consultation done by the Corps with NMFS and approved by NMFS in an email dated June 24, 2019 with the Port's EFH assessment and all proposed measures.

13. Prior to initiating construction in waters of the U.S. on each event or project to be covered by RGP 72 annually, the Permittee shall submit to the Corps Regulatory Division a complete set of plans showing all work and structures in waters of the U.S. All plans shall be in compliance with

the Final Map and Drawing Standards for the South Pacific Division Regulatory Program dated February 10, 2016 (http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences/tabid/10390/Article/651327/updated-map-and-drawing-standards.aspx). The work must comply with the attached permit plans. No work in waters of the U.S. is authorized until the Permittee receives, in writing (by letter or email), Corps Regulatory Division approval of the final plans. The Permittee shall ensure that the project is built in accordance with the Corps-approved plans.

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) 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).

14. This Corps permit does not authorize you to take any threatened or endangered species, in particular the California least tern (*Sterna antillarum browni;*CLT). In order to take a legally take a listed species, you must have separate authorization under the ESA. Permittee shall not perform work during the CLT nesting season from April 1 to September 15th. If the permittee determines that it is necessary to perform in-water construction during the CLT nesting season permittee shall notify the Corps, USFWS, CDFW, and NMFS at least 15 days prior to work for review and comments; if no comments are received within 15 days of the notification to the above agencies then the permittee can proceed with construction. Permittee shall limit construction during the CLT season to four consecutive days/15 days for total in-water construction. Permittee shall submit a report to the Corps every year by January 31st when work is done in the CLT breeding season.

15. Permittee shall ensure that if in-water construction is performed during CLT season that turbidity is monitored during in-water construction and the turbidity exceeds more than 20% more turbid than ambient conditions then the permittee shall cease work until the turbidity dissipates and notify the Corps and the Corps may require a turbidity curtain be installed. Permittee shall also implement spill control measures if needed.

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described

above pursuant to:

(X) Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403).

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 325.7 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. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

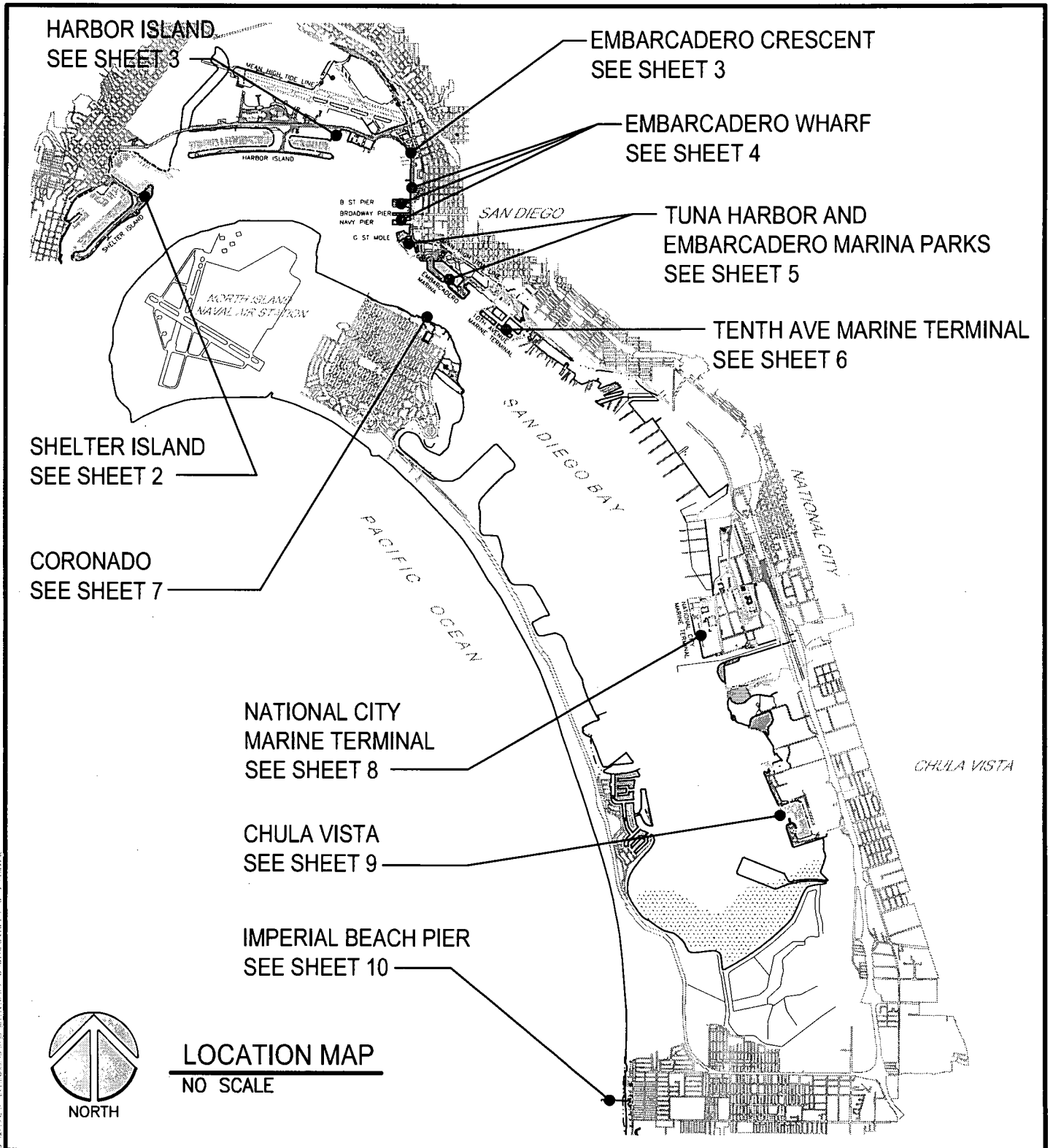
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

PERMITTEE _____ DATE 12/1/19

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Sallie Diebolt _____ DATE 10 DEC 2019

Sallie Diebolt
Chief, Arizona Branch
Army Corps of Engineers



LOCATION MAP
NO SCALE

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 1 OF 10 DATE: 6/27/2018 DWG NO: 331-C REV: –

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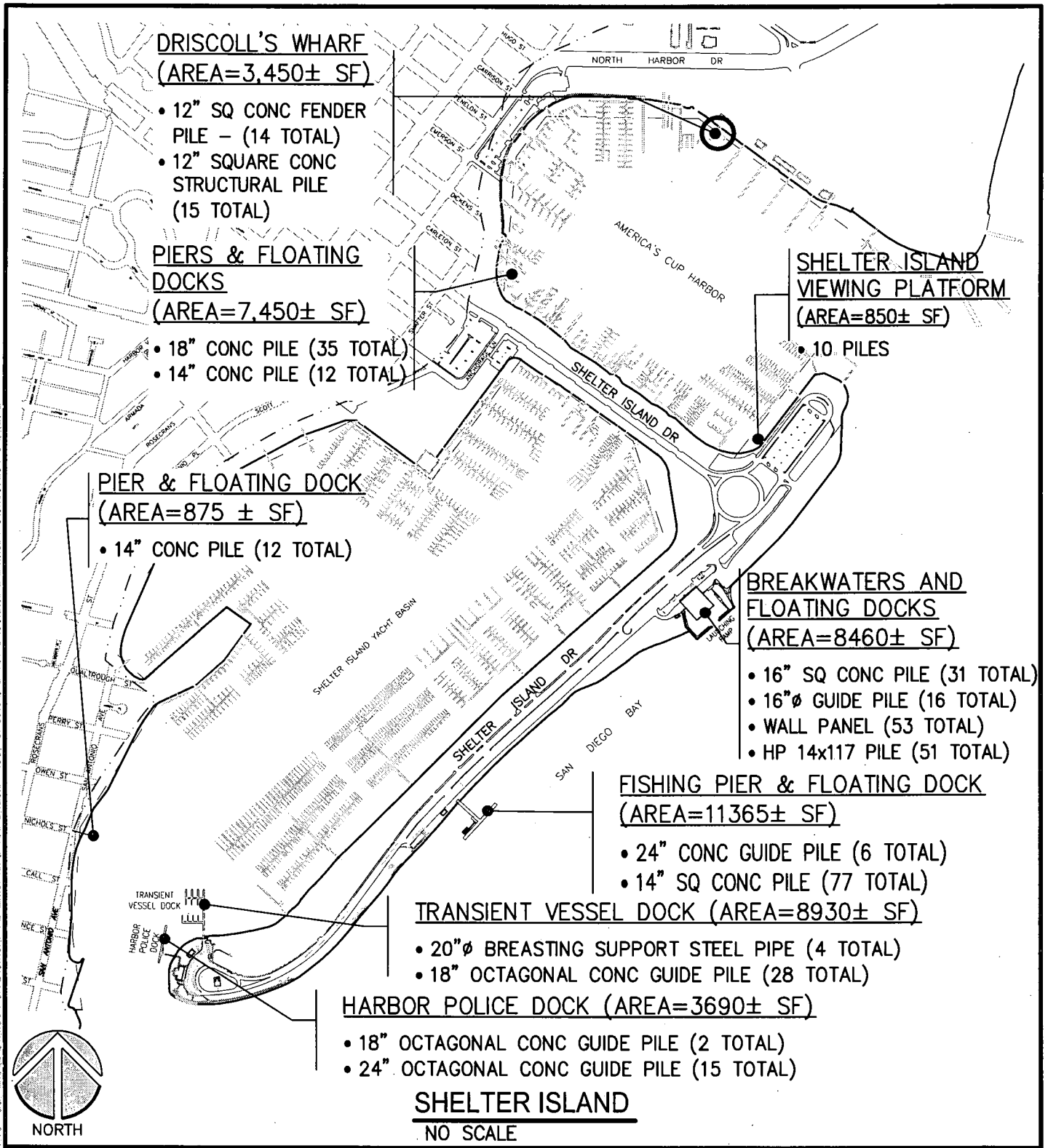

DRISCOLL'S WHARF (AREA=3,450± SF)

- 12" SQ CONC FENDER PILE – (14 TOTAL)
- 12" SQUARE CONC STRUCTURAL PILE (15 TOTAL)

PIERS & FLOATING DOCKS (AREA=7,450± SF)

- 18" CONC PILE (35 TOTAL)
- 14" CONC PILE (12 TOTAL)

SHELTER ISLAND VIEWING PLATFORM (AREA=850± SF)

- 10 PILES

PIER & FLOATING DOCK (AREA=875 ± SF)

- 14" CONC PILE (12 TOTAL)

BREAKWATERS AND FLOATING DOCKS (AREA=8460± SF)

- 16" SQ CONC PILE (31 TOTAL)
- 16"ø GUIDE PILE (16 TOTAL)
- WALL PANEL (53 TOTAL)
- HP 14x117 PILE (51 TOTAL)

FISHING PIER & FLOATING DOCK (AREA=11365± SF)

- 24" CONC GUIDE PILE (6 TOTAL)
- 14" SQ CONC PILE (77 TOTAL)

TRANSIENT VESSEL DOCK (AREA=8930± SF)

- 20"ø BREASTING SUPPORT STEEL PIPE (4 TOTAL)
- 18" OCTAGONAL CONC GUIDE PILE (28 TOTAL)

HARBOR POLICE DOCK (AREA=3690± SF)

- 18" OCTAGONAL CONC GUIDE PILE (2 TOTAL)
- 24" OCTAGONAL CONC GUIDE PILE (15 TOTAL)

SHELTER ISLAND

NO SCALE

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA

DATUM: M.L.L.W.

ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT

SAN DIEGO UNIFIED PORT DISTRICT
3165 PACIFIC HIGHWAY
SAN DIEGO, CA 92101

CHIEF ENGINEER:

ERNIE MEDINA

DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH

IN: SAN DIEGO BAY
AT: SAN DIEGO
COUNTY OF: SAN DIEGO STATE: CA
APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT

SHEET 2 OF 10 DATE: 5/10/2019
DWG NO: 331-C REV: –

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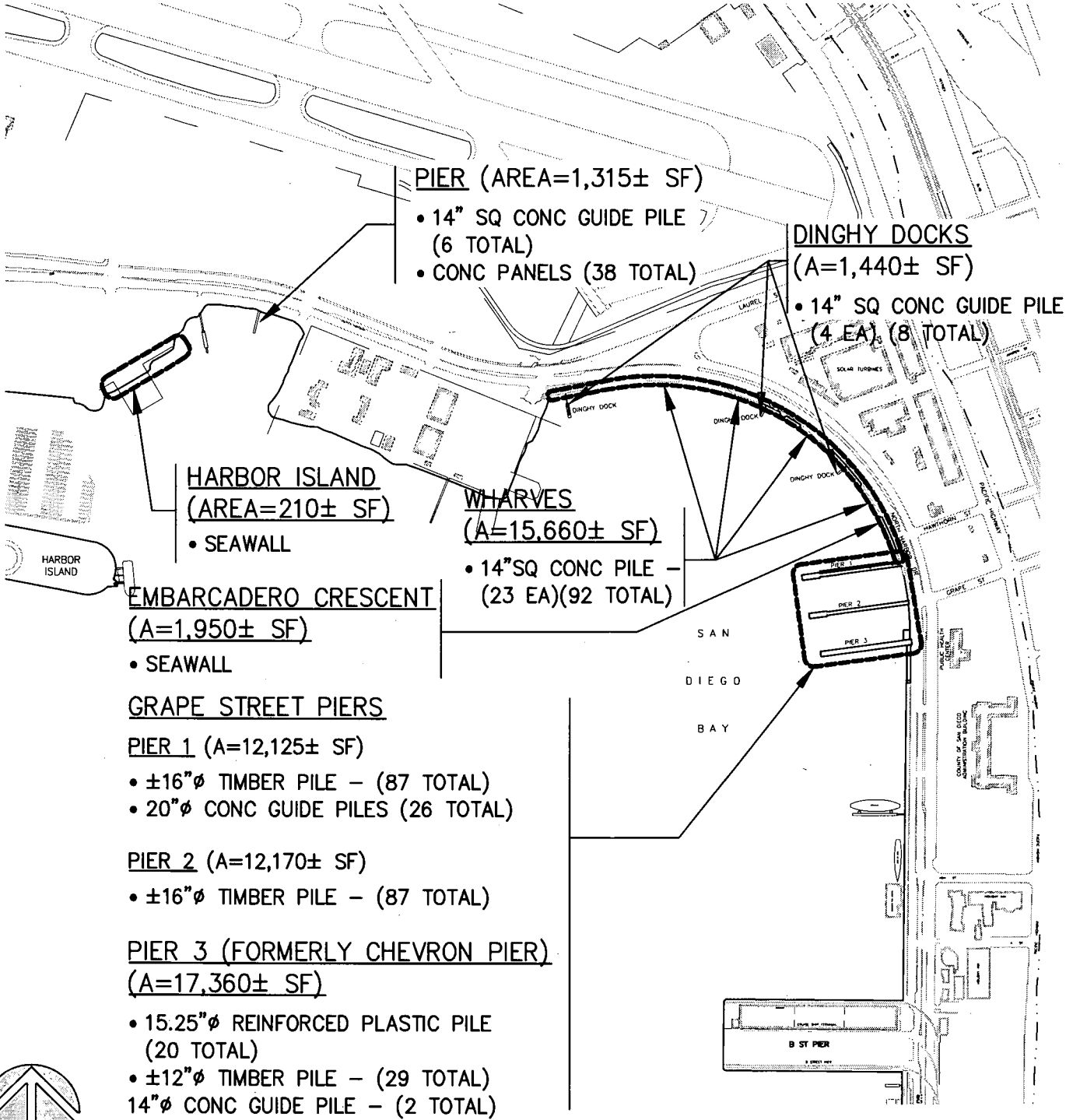

EMBARCADERO CRESCENT AND HARBOR ISLAND

SCALE: 1" = 600'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 3 OF 10 DATE: 5/10/2019 DWG NO: 331-C REV: –

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EMBARCADERO WHARF (A=45,275'± SF)

- ±14"ø TIMBER PILE – (108 TOTAL)
- 15.25"ø PLASTIC PILE – (67 TOTAL)
- 16"ø CONC PILES – (130 TOTAL)
- 14" SQ CONC PILES – (129 TOTAL)
- SEAWALL (1795± LF)

B STREET PIER (A=400,000± SF)

- ±16"ø TIMBER PILE – (221 TOTAL)
- 15.25"ø PLASTIC PILE – (145 TOTAL)
- 16" SQ CONC PILE – (51 TOTAL)
- 4'øx20' MARINE FENDER – 17 (TOTAL)
- 10'x16' MARINE FENDER – (12 TOTAL)
- SEAWALL (400± LF)

VIEWING PLATFORM (A=2,400± SF)

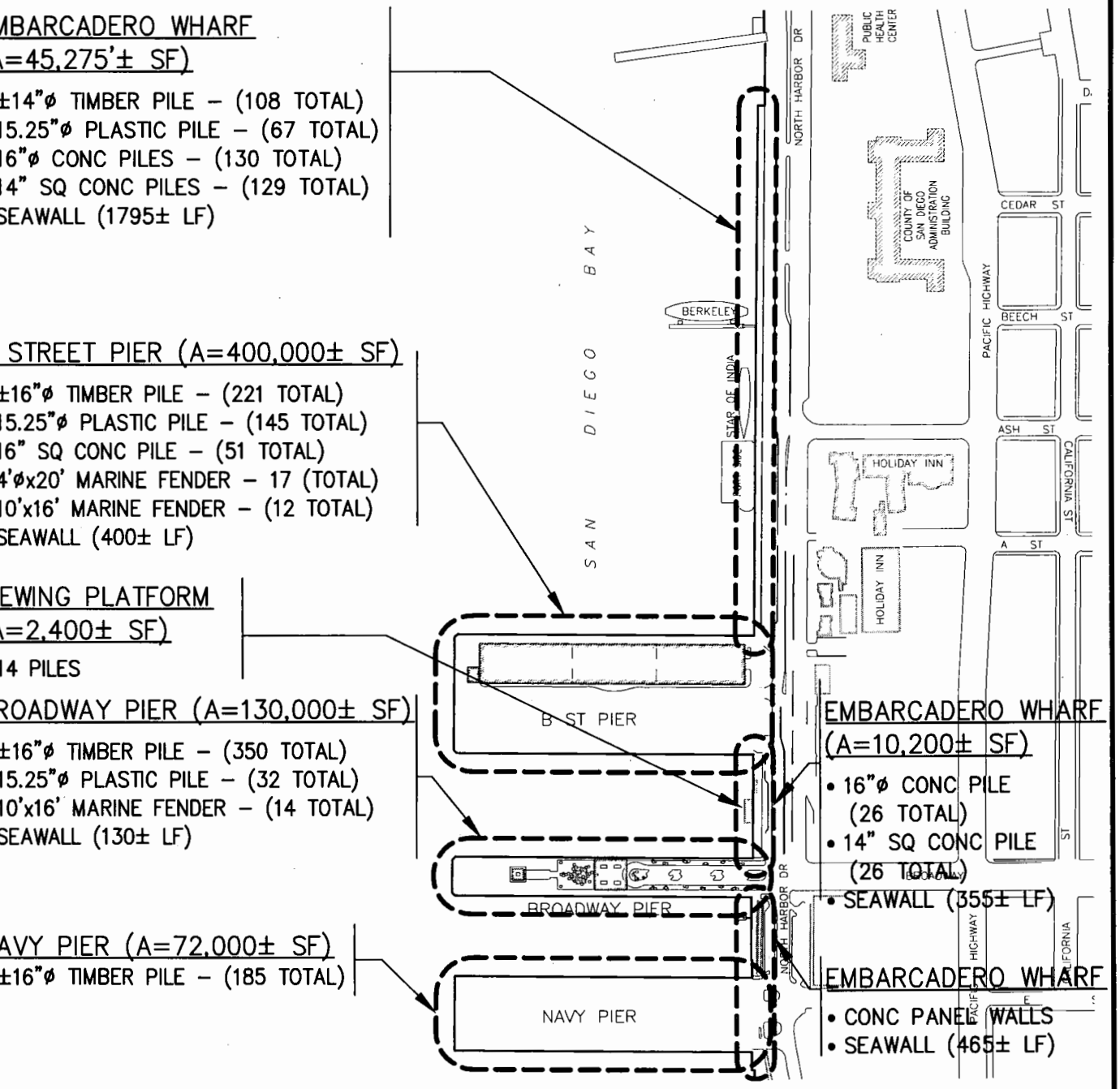
- 14 PILES

BROADWAY PIER (A=130,000± SF)

- ±16"ø TIMBER PILE – (350 TOTAL)
- 15.25"ø PLASTIC PILE – (32 TOTAL)
- 10'x16' MARINE FENDER – (14 TOTAL)
- SEAWALL (130± LF)

NAVY PIER (A=72,000± SF)

- ±16"ø TIMBER PILE – (185 TOTAL)

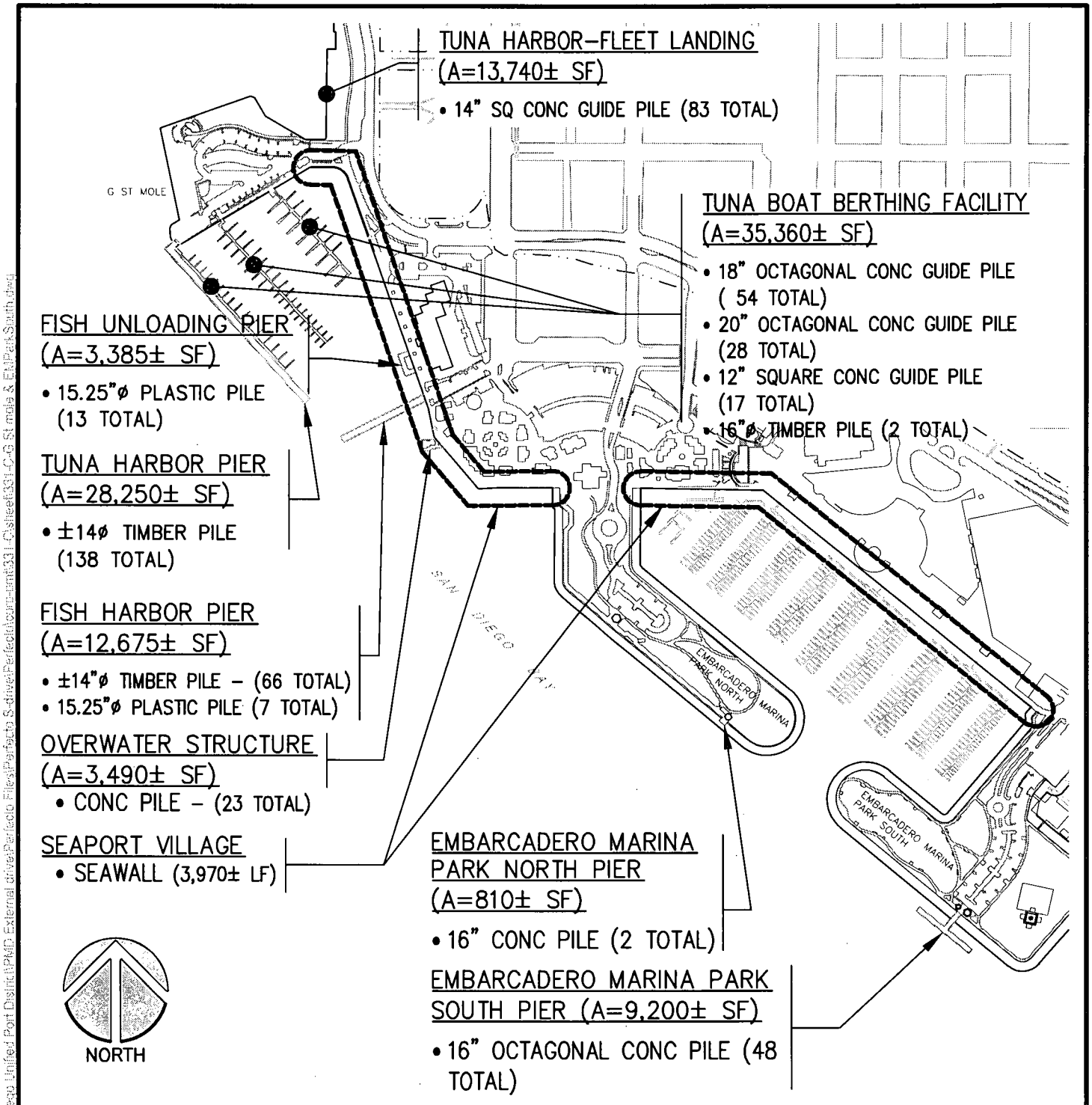


NORTH

EMBARCADERO WHARF

SCALE: 1" = 500'

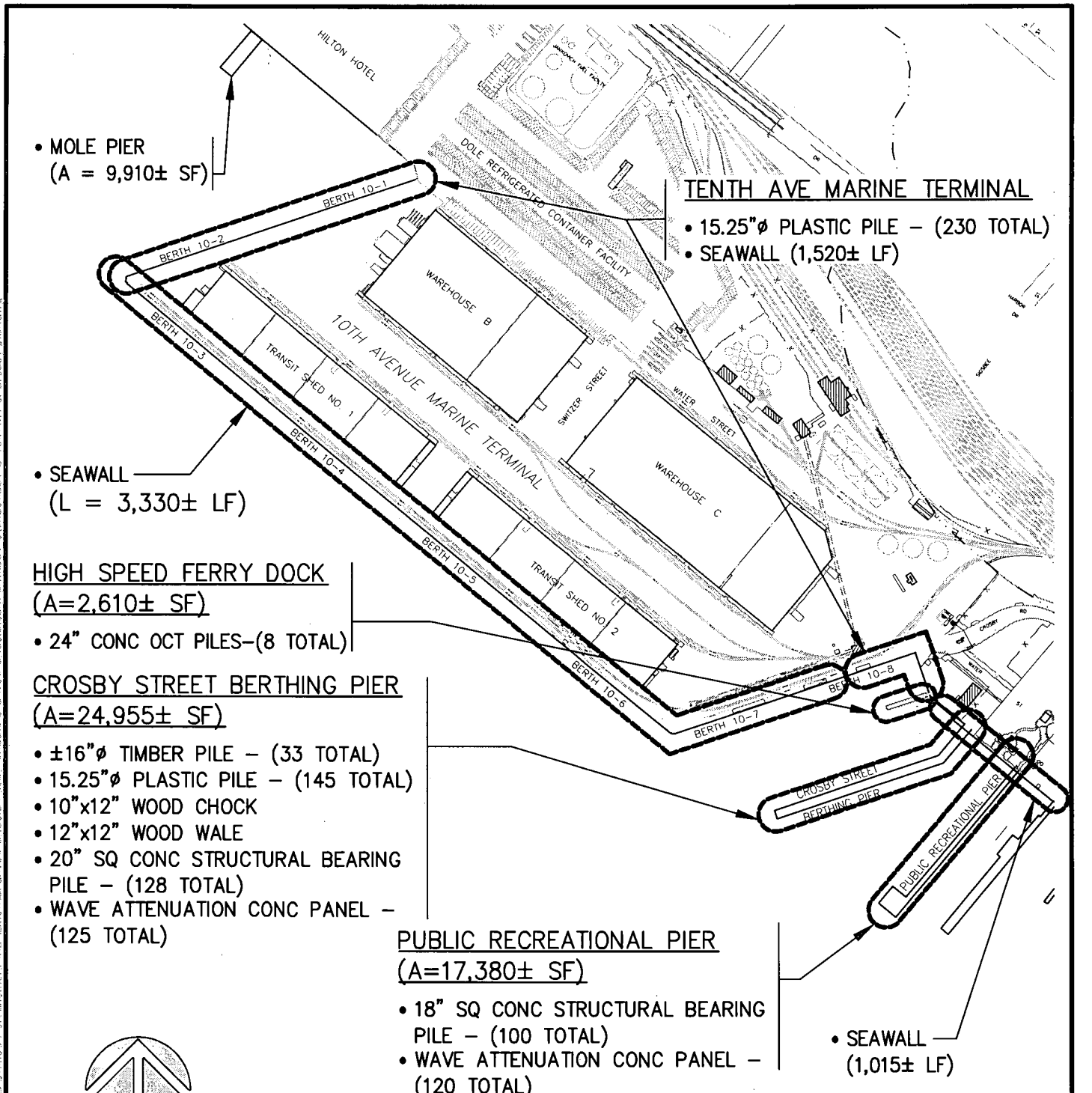
PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 4 OF 10 DATE: 5/6/2019 DWG NO: 331-C REV: –



TUNA HARBOR AND EMBARCADERO MARINA PARKS

SCALE: 1" = 600'

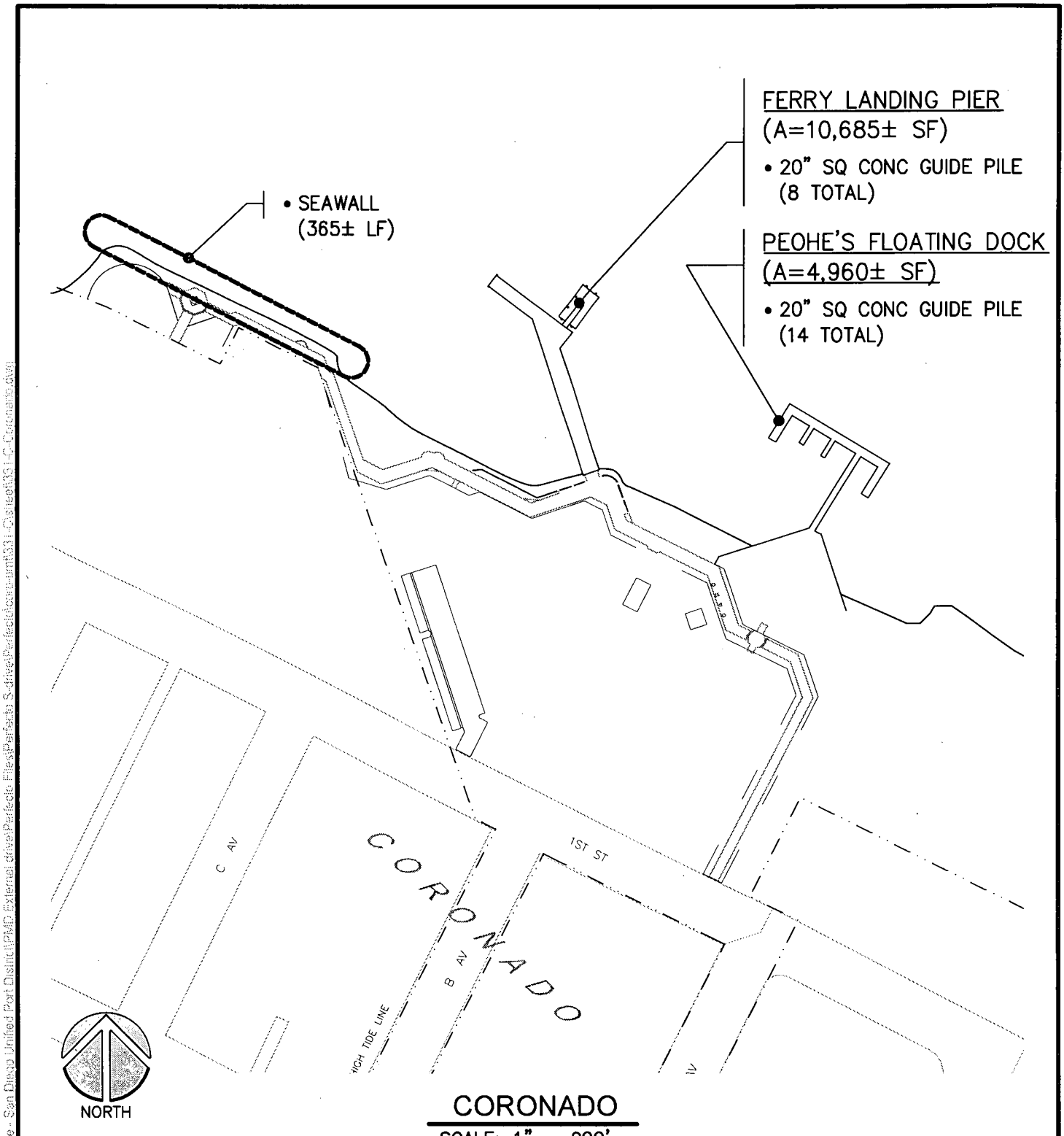
PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 5 OF 10 DATE: 5/6/2019 DWG NO: 331-C REV: –



TENTH AVENUE MARINE TERMINAL

SCALE: 1" = 500'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 6 OF 10 DATE: 5/6/2019 DWG NO: 331-C REV: –



CORONADO

SCALE: 1" = 200'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101	IN: SAN DIEGO BAY
DATUM: M.L.L.W.	CHIEF ENGINEER:	AT: SAN DIEGO
ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	ERNIE MEDINA	COUNTY OF: SAN DIEGO STATE: CA
	DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT
		SHEET 7 OF 10 DATE: 5/10/2019
		DWG NO: 331-C REV: –

BERTH 24-1 (A=14,745± SF)

- ±16"ø TIMBER PILE – (36 TOTAL)
- 15.25"ø REINFORCED PLASTIC PILE (13 TOTAL)

BERTHS 24-2, 24-3 (A=83,605± SF)

- ±40"ø RUBBER FENDER SYSTEM (20 TOTAL)

BERTHS 24-4, 24-5 (A=120,460± SF)

- ±48"ø RUBBER FENDER SYSTEM (35 TOTAL)

BERTH 24-10 & 24-11 (A=97,240± SF)

- ±16"ø TIMBER PILE – (89 TOTAL)
- 15.25"ø PLASTIC PILE (76 TOTAL)
- 16"O.D. FIBERGLASS PILE – (22 TOTAL)

FISHING PIER (A=1,530± SF)

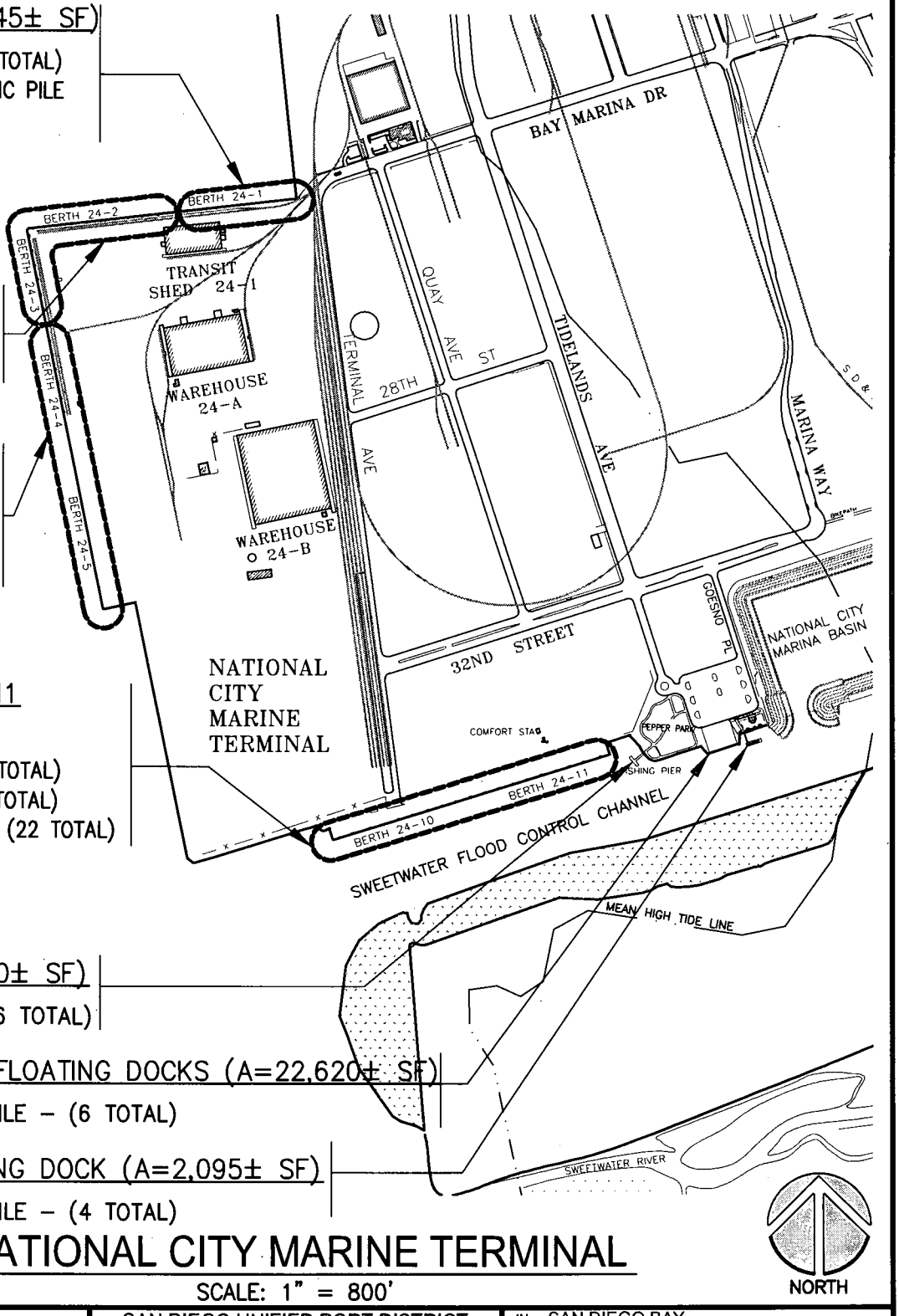
- 12" SQ CONC PILE – (16 TOTAL)

BOAT LAUNCH RAMP FLOATING DOCKS (A=22,620± SF)

- 18" OCTAGONAL CONC PILE – (6 TOTAL)

PEPPER PARK FLOATING DOCK (A=2,095± SF)

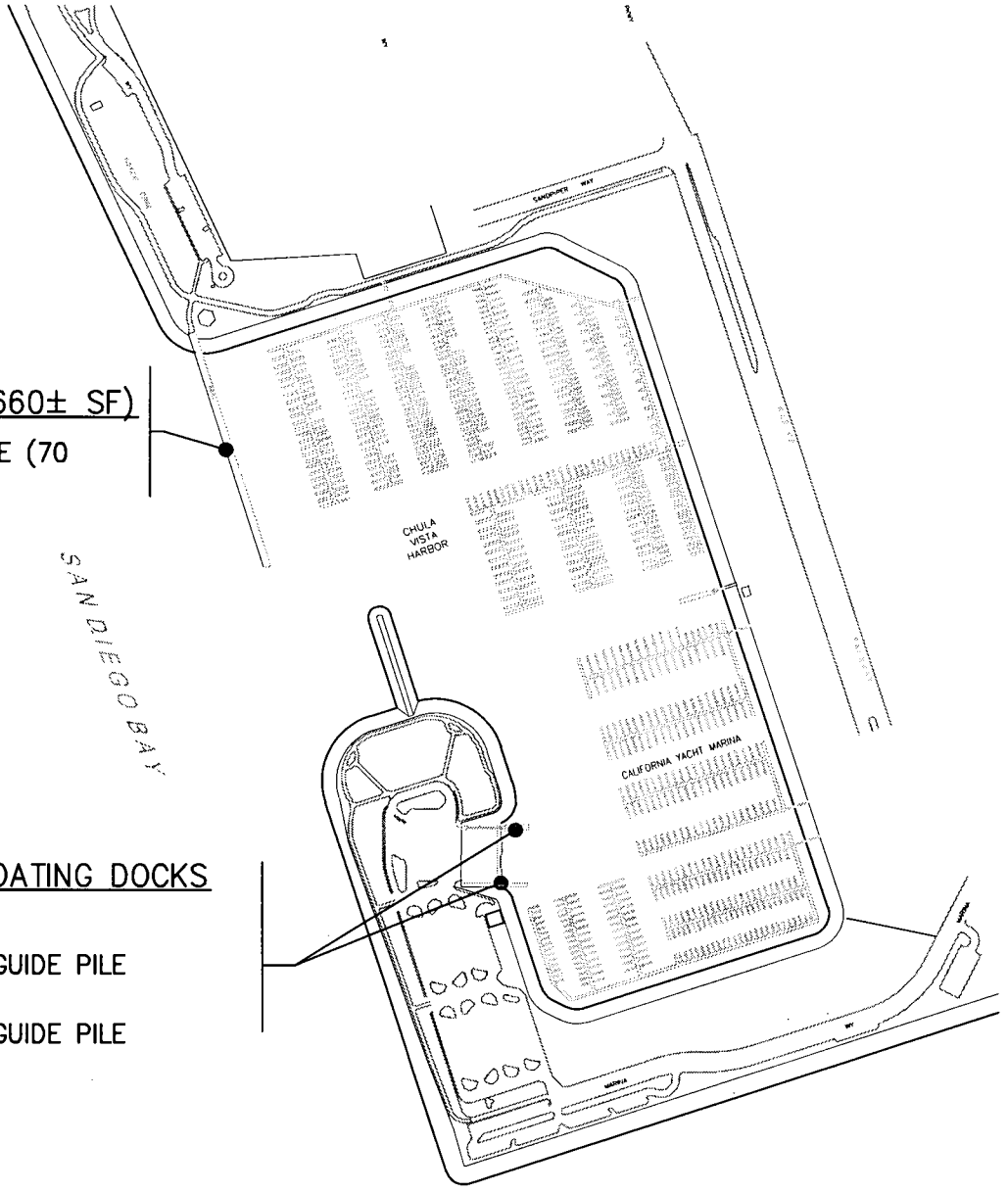
- 18" OCTAGONAL CONC PILE – (4 TOTAL)



NATIONAL CITY MARINE TERMINAL

SCALE: 1" = 800'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: NATIONAL CITY COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 8 OF 10 DATE: 5/6/2019 DWG NO: 331-C REV: –



FISHING PIER (A=13,660± SF)

- 14"ø WOOD FENDER PILE (70 TOTAL)

LAUNCHING RAMP FLOATING DOCKS (A=3,590± SF)

- 18" OCTAGONAL CONC GUIDE PILE (3 TOTAL)
- 16" OCTAGONAL CONC GUIDE PILE (5 TOTAL)

NORTH

CHULA VISTA

SCALE: 1" = 500'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101	IN: SAN DIEGO BAY
DATUM: M.L.L.W.	CHIEF ENGINEER:	AT: CHULA VISTA
ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	ERNIE MEDINA	COUNTY OF: SAN DIEGO STATE: CA
	DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT
		SHEET 9 OF 10 DATE: 5/6/2019
		DWG NO: 331-C REV: –

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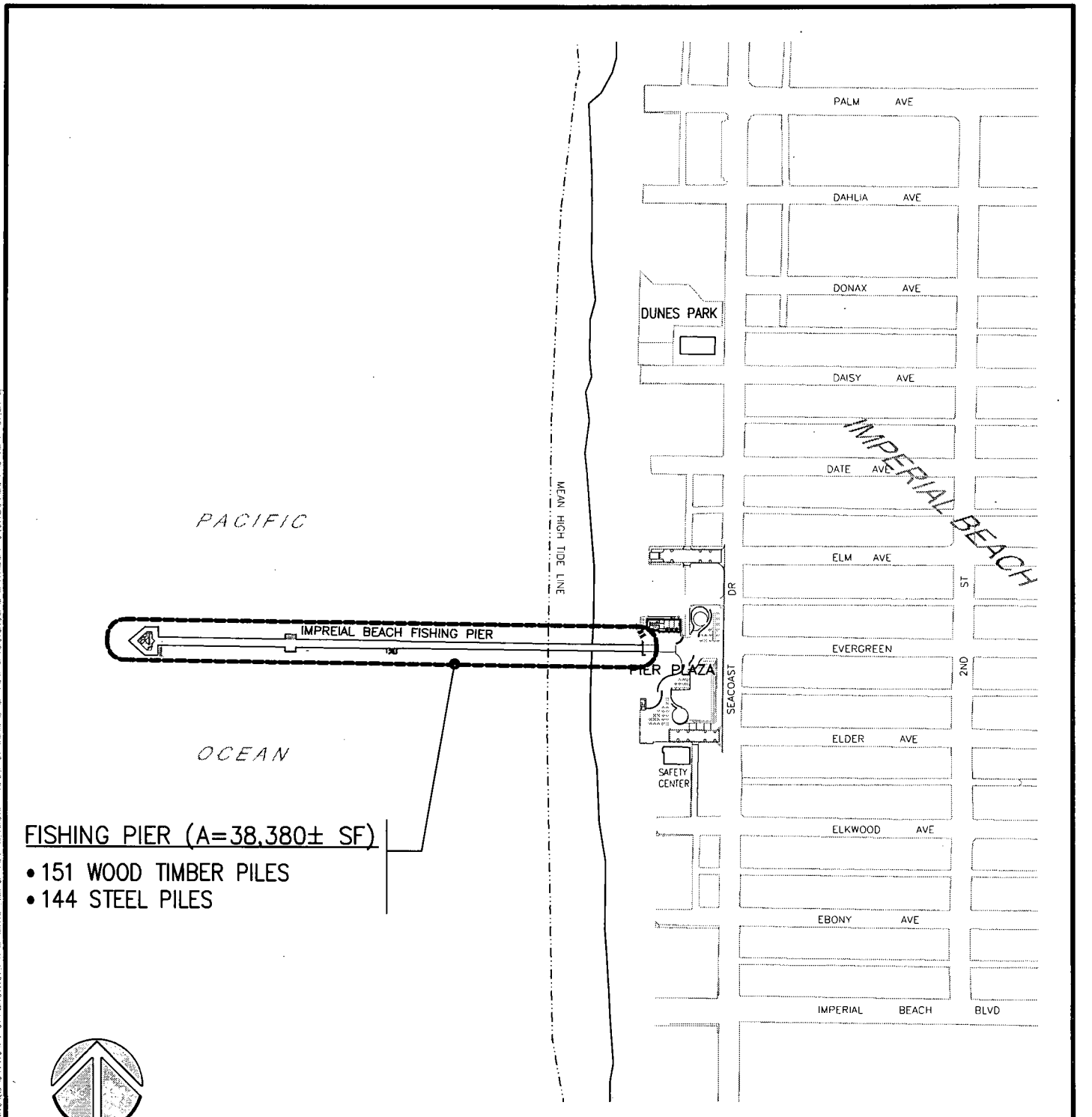

IMPERIAL BEACH PIER

SCALE: 1" = 400'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA

DATUM: M.L.L.W.

ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT

SAN DIEGO UNIFIED PORT DISTRICT
3165 PACIFIC HIGHWAY
SAN DIEGO, CA 92101

CHIEF ENGINEER:

ERNIE MEDINA

DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH

IN: SAN DIEGO BAY
AT: IMPERIAL BEACH
COUNTY OF: SAN DIEGO STATE: CA
APPLICATION BY:
SAN DIEGO UNIFIED PORT DISTRICT

SHEET 10 OF 10 DATE: 5/6/2019
DWG NO: 331-C REV: –

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Diego Regional Water Quality Control Board

November 22, 2019

Certified Mail – Return Receipt Requested
Article Number: 7004 0750 0000 7625 2436

In reply/refer to:
R9-2019-0140:858331:MPorter

Ms. Eileen Maher
San Diego Unified Port District
3165 Pacific Coast Highway
San Diego, CA 92101

Subject: Clean Water Act Section 401 Water Quality Certification No. R9-2019-0140 for the Renewal of U.S. Army Corps of Engineers Regional General Permit No. 72 for the Routine Maintenance, and Repair of Existing Structures Within San Diego Bay and Pacific Ocean off Imperial Beach, CA Project

Ms. Maher:

Enclosed find Clean Water Act Section 401 Water Quality Certification No. R9-2019-0140 (Certification) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) in response to the application submitted by the San Diego Unified Port District for the *Renewal of U.S. Army Corps of Engineers Regional General Permit No. 72 for the Routine Maintenance, and Repair of Existing Structures Within San Diego Bay and Pacific Ocean off Imperial Beach, CA* Project (Project). A description of the Project and Project location can be found in the Certification and site maps which are included as attachments to the Certification.

The San Diego Unified Port District is enrolled under State Water Resources Control Board Order No. 2003-017-DWQ as a condition of the Certification and is required to implement and comply with all terms and conditions of the Certification in order to ensure that water quality standards are met for the protection of wetlands and other aquatic resources. Failure to comply with this Certification may subject the San Diego Unified Port District to enforcement actions by the San Diego Water Board including administrative enforcement orders requiring the San Diego Unified Port District to cease and desist from violations or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to $10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

Please submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to the San Diego Water Board, 2375 Northside Drive, San Diego, CA 92108. Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must

include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2019-0140:858331: MPorter.

For questions or comments regarding the Certification, please contact Mike Porter by telephone at (619) 521-3967 or by email at mike.porter@waterboards.ca.gov.

Respectfully,

DAVID W. GIBSON
Executive Officer

Enclosure: Clean Water Act Section 401 Water Quality Certification No. R9-2019-0140 for the Renewal of U.S. Army Corps of Engineers Regional General Permit No. 72 for the Routine Maintenance, and Repair of Existing Structures Within San Diego Bay and Pacific Ocean off Imperial Beach, CA Project

DWG:eb:mp

cc: via email with enclosure

U.S. Army Corps of Engineers
Regulatory Division
South Coast Branch
Mr. Robert Smith
Robert.r.smith@usace.army.mil

California Department of Fish and Wildlife
South Coast Region
Habitat Conservation Planning – South
Ms. Kelly Fisher
Kelly.fisher@dfw.ca.gov

U.S. EPA, Region 9
OWOW, Wetlands Regulatory Office
Ms. Megan Fitzgerald
Fitzgerald.Megan@epa.gov

State Water Resources Control Board
Division of Water Quality
401 Water Quality Certification and
Wetlands Unit
Stateboard401@waterboards.ca.gov

San Diego Water Board
Surface Water Protection Branch
Mr. David Barker
David.Barker@waterboards.ca.gov

San Diego Water Board
Wetland and Riparian Protection
Mr. Eric Becker
Eric.Becker@waterboards.ca.gov

Databases Identifying Numbers:

Order Number R9-2019-0140
WDID 9 000001522
CIWQS Regulatory Measure 430028
CIWQS Person Maher 102127
CIWQS Party SDUPD 39631
CIWQS Place 858331

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

2375 Northside Drive, Suite.100, San Diego, CA 92108
Phone (619) 516-1990 • Fax (619) 516-1994
http://www.waterboards.ca.gov/sandiego/

Clean Water Act Section 401 Water Quality Certification
and Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

PROJECT: **Renewal of U.S. Army Corps of Engineers Regional General Permit No. 72 for the Routine Maintenance and Repair of Existing Structures Within San Diego Bay and Pacific Ocean off Imperial Beach, CA**
Certification Number R9-2019-0140
WDID: 9 000001522

Reg. Meas. ID: 430028
Place ID: 858331
Party ID: 39631
Person ID: 102127

APPLICANT: **San Diego Unified Port District**
3165 Pacific Highway
San Diego, CA 92101

ACTION:

☑ Order for Low Impact Certification	☐ Order for Denial of Certification
☐ Order for Technically-conditioned Certification	☐ Waiver of Waste Discharge Requirements
☑ Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	☐ Enrollment in Isolated Waters Order No. 2004-004-DWQ

PROJECT DESCRIPTION

An application dated April 15, 2019 was submitted by San Diego Unified Port District (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed *Renewal of US Army Corps of Engineers Regional General Permit No.72 for the Routine Maintenance, and Repair of Existing Structures Within San Diego Bay and Pacific Ocean off Imperial Beach, CA* (Project). The Applicant has also applied for authorization under Rivers and Harbors Act section 10 and Clean Water Act section 404 Nationwide Permit No. RGP 72 from the United States Army Corps of Engineers for the Project (USACE File No. SPL-2006-01690-RRS).

The Project sites are located in San Diego Bay and the Pacific Ocean at the Imperial Beach Fishing Pier and within the Cities of Coronado, San Diego, National City, Chula Vista, and Imperial Beach, San Diego County, California.

The Applicant has paid all required fees for this Certification in the amount of $23,472.18. On an annual basis, the Applicant must also pay all active discharge fees and post discharge monitoring fees, as appropriate[1]. On May 29, 2019, the San Diego Water Board provided

[1] The Applicant shall pay an annual active discharge fee each fiscal year or portion of a fiscal year during which discharges occur until the regional water board or the State Water Resources Control Board (State Water Board) issues a Notice of

(footnote continued on next page)

Renewal of US Army Corps of Engineers
Regional General Permit No.72 for the Routine
Maintenance, and Repair of Existing Structures
Within San Diego Bay and Pacific Ocean Off
Imperial Beach, CA

Certification No. R9-2019-0140

public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant-proposed work to be covered under the renewed RGP No.72 would include: routine maintenance of docks, wharves, piers, and piles on tidelands both in San Diego Bay and in the Pacific Ocean at the Imperial Beach Pier; like-for-like repair or replacement of damaged and broken wooden, concrete and/or plastic pier and fender piles, as needed; and like-for-like repair or replacement of pier, deck boards, blocks, camel logs, installation of marine fenders, and other ancillary items, as needed. No work approved under this permit would result in additional fill, shading, or overwater coverage. All work would include pre-construction surveys of *Caulerpa taxifolia* and eelgrass, as is consistent with conditions outlined in the current permit.

The routine maintenance work as described above within San Diego Bay and in the Pacific Ocean at the Imperial Beach Pier includes, but is not limited to, the following structures:

Chula Vista Bayfront:
- Fishing Pier;
- Launching Ramp Floating Docks;

Coronado Bayfront:
- Ferry Landing Pier;
- Seawall and Peohe's Floating Dock;

Imperial Beach:
- Imperial Beach Fishing Pier;

Harbor Island:
- Seawall;
- Dinghy Docks;
- Pier;

Completion of Discharges Letter to the discharger. Dischargers shall pay an annual post-discharge monitoring fee each fiscal year or portion of a fiscal year commencing with the first fiscal year following the fiscal year in which the regional water board or State Water Board issued a Notice of Completion of Discharges Letter to the discharger, but continued water quality monitoring or compensatory mitigation monitoring is required. Dischargers shall pay the annual post-discharge monitoring fee each fiscal year until the regional water board or the State Water Board issues a Notice of Project Complete Letter to the discharger. Additional information regarding Water Quality Fees, Waste Discharge Requirement Fees, and Water Quality Certification Dredge and Fill Application Fee Calculator can be found electronically at the following location: http://www.waterboards.ca.gov/resources/fees/water_quality/#wqfees.

Renewal of US Army Corps of Engineers
Regional General Permit No.72 for the Routine
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Within San Diego Bay and Pacific Ocean Off
Imperial Beach, CA

Certification No. R9-2019-0140

National City Bayfront:

- National City Marine Terminal Berths 24-1 through 24-5, 24-10 and 24-11;
- Fishing Pier;
- Boat Launch Ramp Floating Docks;
- Pepper Park Floating Dock;

Embarcadero:

- Pier, Wharves & Dinghy Docks, Grape Street Piers 1, 2 and 3 (formerly Chevron Pier); Embarcadero Wharf;
- B Street Pier;
- Viewing Platform, Broadway Pier;
- Navy Pier;
- Tuna Harbor Fleet Landing;
- Tuna Harbor Pier;
- Fish Harbor Pier;
- Fish Unloading Pier;
- Tuna Boat Berthing Facility;
- Embarcadero Marina Park North and South Piers;

Shelter Island:

- Driscoll's Wharf;
- Piers & Floating Docks;
- Dinghy Docks;
- Shelter Island Viewing Platform;
- Boat Launch Breakwaters and Floating Docks;
- Fishing Pier & Floating Dock;
- Transient Vessel Dock and Harbor Police Dock;

La Playa Piers: Nichols Street Pier (former Arrington and Daly); and

Tenth Avenue Marine Terminal:

- Tenth Avenue Marine Terminal Berths 10-1 through 10-8;
- Mole Pier;
- Seawall;
- High Speed Ferry Dock;
- Crosby Street Berthing Pier;
- Public Recreational Pier.

Additional Project details are provided in Attachments 2 and 3 of this Certification.

Renewal of US Army Corps of Engineers
Regional General Permit No.72 for the Routine
Maintenance, and Repair of Existing Structures
Within San Diego Bay and Pacific Ocean Off
Imperial Beach, CA

Certification No. R9-2019-0140

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Attachments:

Renewal of US Army Corps of Engineers
Regional General Permit No.72 for the Routine
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Within San Diego Bay and Pacific Ocean Off
Imperial Beach, CA

Certification No. R9-2019-0140

The San Diego Water Board has independently reviewed the record of the Project to analyze the extent and nature of proposed Project impacts to the water quality and beneficial uses of waters of the United States and/or State and associated compensatory mitigation required to offset impacts attributed to the Project. In accordance with this Certification, the Applicant may proceed with the Project under the following terms and conditions:

I. STANDARD CONDITIONS

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.

B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

II. GENERAL CONDITIONS

A. **Term of Certification**. Water Quality Certification No. R9-2019-0140 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.

B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.

C. **General Waste Discharge Requirements**. The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/gowdr401regulated_projects.pdf

D. **Project Conformance with Application**. All water quality protection measures and BMPs described in the application and supplemental information for water quality certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.

E. **Project Conformance with Water Quality Control Plans or Policies**. Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 U.S.C §1313.). The Basin Plan is accessible on-line at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml

F. **Project Modification**. The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification

G. **Certification Distribution Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.

Renewal of US Army Corps of Engineers
Regional General Permit No.72 for the Routine
Maintenance, and Repair of Existing Structures
Within San Diego Bay and Pacific Ocean Off
Imperial Beach, CA

Certification No. R9-2019-0140

H. **Inspection and Entry**. The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:

1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and

4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.

I. **Enforcement Notification**. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.

J. **Certification Actions**. This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:

1. Violation of any term or condition of this Certification;

2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of San Diego Bay and Pacific Ocean;

3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;

4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and

5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.

K. **Duty to Provide Information**. The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.

L. **Property Rights**. This Certification does not convey any property rights of any sort, or any exclusive privilege.

M. **Petitions**. Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

III. CONSTRUCTION BEST MANAGEMENT PRACTICES

A. **Approvals to Commence Construction**. The Applicant shall not commence Project construction until all necessary federal, State, and local approvals are obtained.

B. **Personnel Education.** Prior to the start of the Project, and annually thereafter, the Applicant must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response measures, and BMP implementation and maintenance measures.

C. **Spill Containment Materials.** The Applicant must, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.

D. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of

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waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.

E. **Waste Management**. Except for a discharge permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited.

F. **Construction Equipment**. All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.

G. **Process Water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or State or placed in locations that may be subjected to storm water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.

H. **Hazardous Materials.** Except as authorized by this Certification, substances hazardous to aquatic life including, but not limited to, petroleum products, unused cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each Project activity involving hazardous materials.

I. **Beneficial Use Protection**. The Applicant must take all necessary measures to protect the beneficial uses of waters of San Diego Bay and the Pacific Ocean. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project is violating, or threatens to violate, water quality objectives, the associated Project activities shall cease immediately and the San Diego Water Board shall be notified in accordance with Notification Requirement VI.B of

this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.

J. **Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District Management Practices and Environmental.** The Applicant must implement the San Diego Unified Port District's *Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District* dated May 06, 2019 and approved the Board of Port Commissioners on June 18, 2019 (Attachment 3).

IV. PROJECT IMPACTS AND COMPENSATORY MITIGATION

A. **Project Impacts Avoidance.** The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable. In-water work must not cause a discharge of waste to San Diego Bay and the Pacific Ocean.

B. **Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to San Diego Bay and the Pacific Ocean must not exceed the type and magnitude of impacts described in the table below.

		Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts
Permanent Impacts[1]				
Ocean		1.62	2500	N/A[2]

1. Proposed impacts are the estimated, cumulative impacts from probable and planned maintenance/repairs over 5 years. Impacts shall not exceed this amount over the 5-year term of the Certification.
2. Mitigation is not applicable because impacts will be in-kind for maintenance and repairs, size and locations. No new or additional impacts will occur to open water, ocean floor, or shading over water.

C. **Eelgrass Impacts and Mitigation.** A pre-construction eelgrass survey must be completed in accordance with the requirements of the California Eelgrass Mitigation Policy (CEMP; National Marine Fisheries Service 2014) by a qualified biologist, prior to initiation of construction activities at the site. This survey must include both aerial and density characterization of the beds. If eelgrass is found during the pre-construction

survey, a post-construction survey must be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts must then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, must be mitigated through conformance with the CEMP, which defines the mitigation ratio and other requirements to achieve mitigation for significant eelgrass impacts. If required following the post-construction survey, the CEMP defined mitigation must be developed; submitted and approved by the San Diego Water Board, U.S. Army Corps of Engineers, and National Marine Fisheries Service; and implemented to offset losses to eelgrass.

V. MONITORING AND REPORTING REQUIREMENTS

A. **Annual Planned Projects Reports.** The Applicant must submit annual planned projects reports describing planned projects for the next calendar year to the San Diego Water Board prior to **December 31** of the preceding year following the issuance of this Certification.

B. **Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing compliance with all requirements of this Certification to the San Diego Water Board **prior to or on March 1** of each year following the issuance of this Certification, until the Project has reached completion. Annual Project Progress Reports must be submitted even if Project construction has not begun. The monitoring period for each Annual Project Progress Report shall be January 1st through December 31st of each year. Annual Project Progress Reports must include, at a minimum, the following:

1. The names, qualifications, and affiliations of the persons contributing to the report;

2. The status, progress, and anticipated schedule for completion of Project construction activities;

3. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and

4. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

C. **Final Project Completion and/or Annual Report**. The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion** of the Project. The final report must include the following information:

1. Date of construction initiation;

2. Date of construction completion; and

3. As-built drawings of the Project sites, no bigger than 11"X17."

D. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.

E. **Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. R9-2019-0140:858331:MPorter
2375 Northside Drive, Suite 100
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2019-0140:858331:MPorter.

F. **Document Signatory Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.

2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.

3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

4. A duly authorized representative may sign applications, reports, or information if:

   a. The authorization is made in writing by a person described above.

   b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.

   c. The written authorization is submitted to the San Diego Water Board Executive Officer.

   If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

G. **Document Certification Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be certified as follows:

   "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

VI. NOTIFICATION REQUIREMENTS

A. **Discharge Commencement**. The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

B. **Twenty-Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

C. **Caulerpa Taxifolia.** The Applicant must conduct a surveillance-level survey for *Caulerpa taxifolia*, in accordance with the requirements in the National Marine Fisheries Service's *Caulerpa* Control Protocol (version 4), dated February 25, 2008, not more than 90 days before the initiation of construction to determine presence/absence of this species within the immediate vicinity of the project. If *Caulerpa taxifolia* is identified during a survey, or at any other time before, during, or within 120 days following completion of authorized activities, both National Marine Fisheries Service and California Department of Fish and Wildlife must be contacted within 24 hours of first noting the occurrence. In the event *Caulerpa taxifolia* is detected, all disturbing activity must cease until such time as the infestation has been isolated and treated, or the risk of spread from the disturbing activity is eliminated in accordance with the Caulerpa Control Protocol.

D. **Hazardous Substance Discharge**. Except as provided in Water Code section 13271(b), any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County of San Diego in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Applicant is in violation of a Basin Plan prohibition.

E. **Oil or Petroleum Product Discharge.** Except as provided in Water Code section 13272(b), any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311, or the discharge is in violation of a Basin Plan prohibition.

F. **Anticipated Noncompliance**. The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.

G. **Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:

1. **Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification to the San Diego Water Board **within 10 days of the transfer of ownership.**

2. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of this Certification in the event that a transferee fails to comply.

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VII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

A. The San Diego Unified Port District is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has determined that the Project is categorically exempt on June 20, 2019.[2]

B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has independently determined that the project is categorically exempt for maintenance, replacement, or reconstruction of existing facilities.[3]

C. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Exemption in accordance with CEQA Guidelines section 15062.

VIII. SAN DIEGO WATER BOARD CONTACT PERSON

Mike Porter, Engineering Geologist
California Regional Water Quality Control Board, San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92108
Telephone: 619-521-3967
Email: mike.porter@waterboards.ca.gov

[2] 14 CCR § 15301 and 15302.

[3] 14 CCR § 15301 and 15302.

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IX. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Renewal of US Army Corps of Engineers Regional General Permit No.72 for the routine maintenance, and repair of existing structures within San Diego Bay and Pacific Ocean off Imperial Beach, CA** (Certification No. R9-2019-0140) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2019-0140 issued on November 22, 2019.

David W. Gibson

DAVID W. GIBSON
Executive Officer
San Diego Water Board

22 November 2019
Date

DEFINITIONS

Activity - when used in reference to a permit means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the state.

Buffer - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

California Rapid Assessment Method (CRAM) - is a wetland assessment method intended to provide a rapid, scientifically-defensible and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition and a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method.

Compensatory Mitigation Project - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant -responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Discharge of dredged material – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

Discharge of fill material – means the addition of fill material into waters of the United States and/or State.

Dredged material – means material that is excavated or dredged from waters of the United States and/or State.

Ecological Success Performance Standards – means observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Enhancement – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s) but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Isolated wetland – means a wetland with no surface water connection to other aquatic resources.

Mitigation Bank – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

Preservation - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.

San Diego Unified Port District

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and Pacific Ocean off Imperial Beach

Certification No. R9-2019-0140

ATTACHMENT 2

PROJECT LOCATIONS

SHEET 1 of 10 – Location Map

SHEET 2 of 10 – Shelter Island

SHEET 3 of 10 – Embarcadero Crescent and Harbor Island

SHEET 4 of 10 – Embarcadero Wharf

SHEET 5 of 10 – Tuna Harbor and Embarcadero Marina Parks

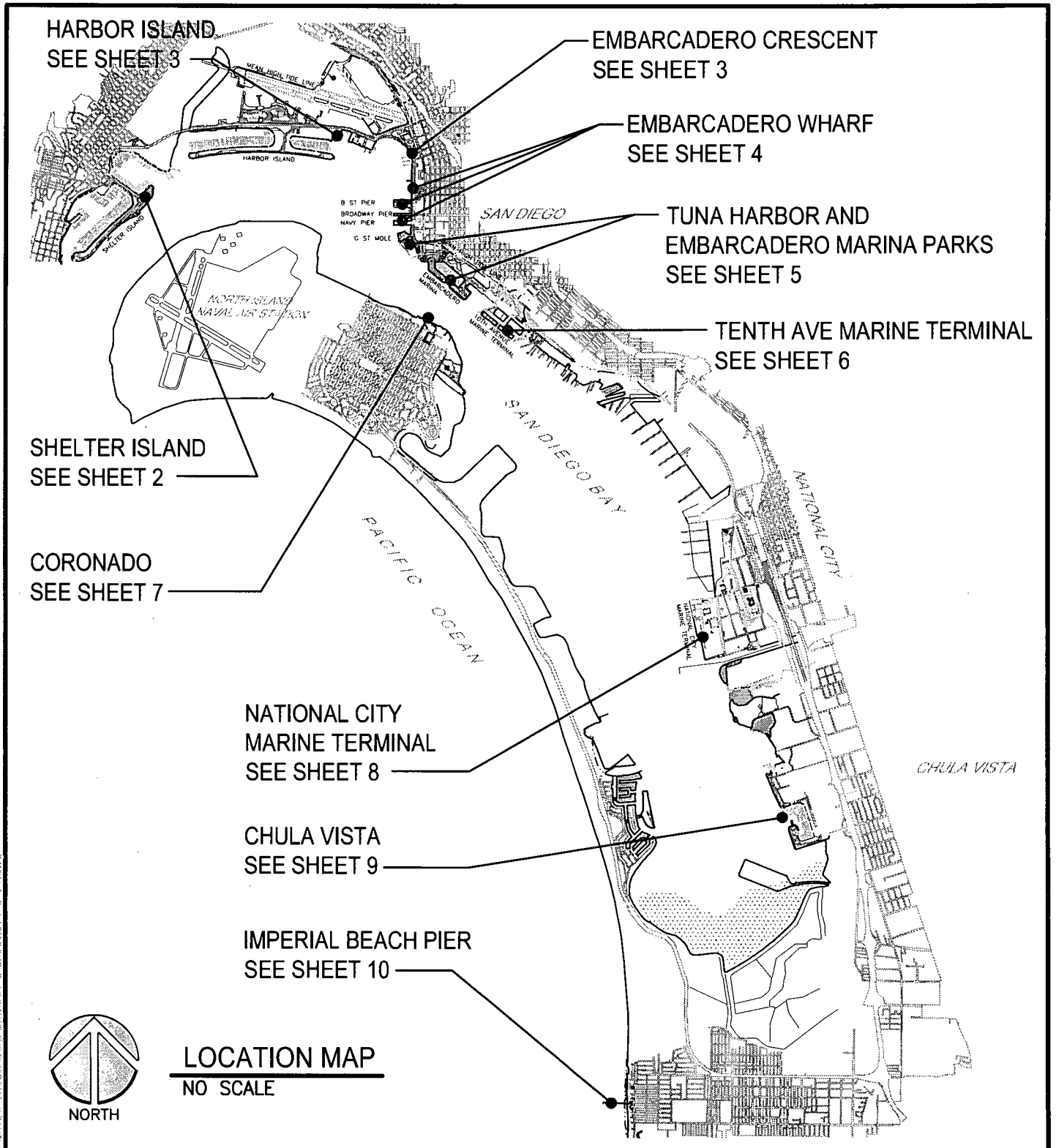
SHEET 6 of 10 – Tenth Avenue Marine Terminal

SHEET 7 of 10 – National City Marine Terminal

SHEET 8 of 10 – Chula Vista

SHEET 9 of 10 – Imperial Beach Pier

SHEET 10 of 10 – Regional Location



LOCATION MAP
NO SCALE

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 1 OF 10 DATE: 6/27/2018 DWG NO: 331-C REV: —

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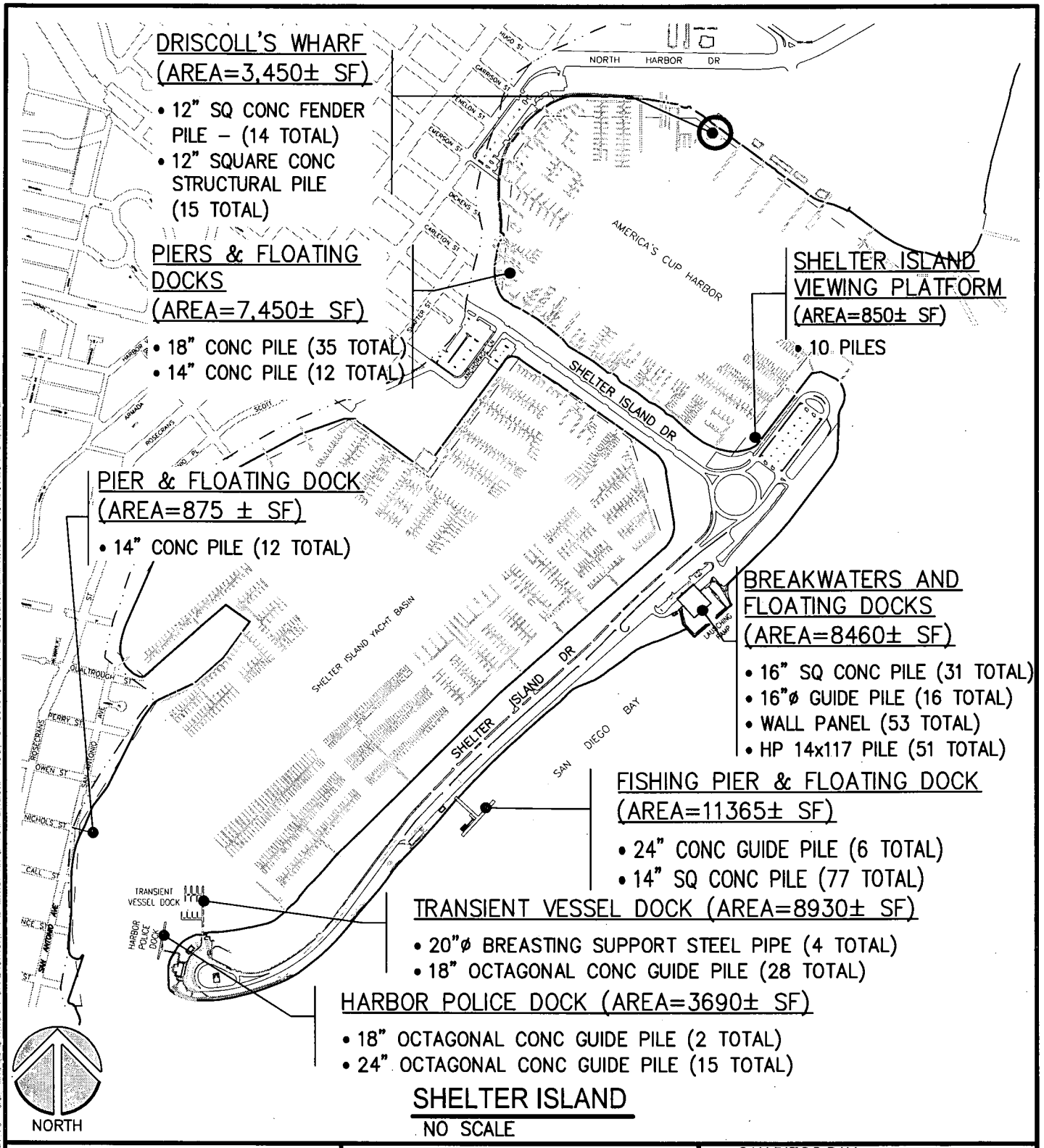

DRISCOLL'S WHARF (AREA=3,450± SF)

- 12" SQ CONC FENDER PILE – (14 TOTAL)
- 12" SQUARE CONC STRUCTURAL PILE (15 TOTAL)

PIERS & FLOATING DOCKS (AREA=7,450± SF)

- 18" CONC PILE (35 TOTAL)
- 14" CONC PILE (12 TOTAL)

SHELTER ISLAND VIEWING PLATFORM (AREA=850± SF)

- 10 PILES

PIER & FLOATING DOCK (AREA=875 ± SF)

- 14" CONC PILE (12 TOTAL)

BREAKWATERS AND FLOATING DOCKS (AREA=8460± SF)

- 16" SQ CONC PILE (31 TOTAL)
- 16"ø GUIDE PILE (16 TOTAL)
- WALL PANEL (53 TOTAL)
- HP 14x117 PILE (51 TOTAL)

FISHING PIER & FLOATING DOCK (AREA=11365± SF)

- 24" CONC GUIDE PILE (6 TOTAL)
- 14" SQ CONC PILE (77 TOTAL)

TRANSIENT VESSEL DOCK (AREA=8930± SF)

- 20"ø BREASTING SUPPORT STEEL PIPE (4 TOTAL)
- 18" OCTAGONAL CONC GUIDE PILE (28 TOTAL)

HARBOR POLICE DOCK (AREA=3690± SF)

- 18" OCTAGONAL CONC GUIDE PILE (2 TOTAL)
- 24" OCTAGONAL CONC GUIDE PILE (15 TOTAL)

SHELTER ISLAND

NO SCALE

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA

DATUM: M.L.L.W.

ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT

SAN DIEGO UNIFIED PORT DISTRICT
3165 PACIFIC HIGHWAY
SAN DIEGO, CA 92101

CHIEF ENGINEER:

ERNIE MEDINA

DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH

IN: SAN DIEGO BAY
AT: SAN DIEGO
COUNTY OF: SAN DIEGO STATE: CA
APPLICATION BY:
SAN DIEGO UNIFIED PORT DISTRICT

SHEET 2 OF 10 DATE: 5/10/2019
DWG NO: 331-C REV: –

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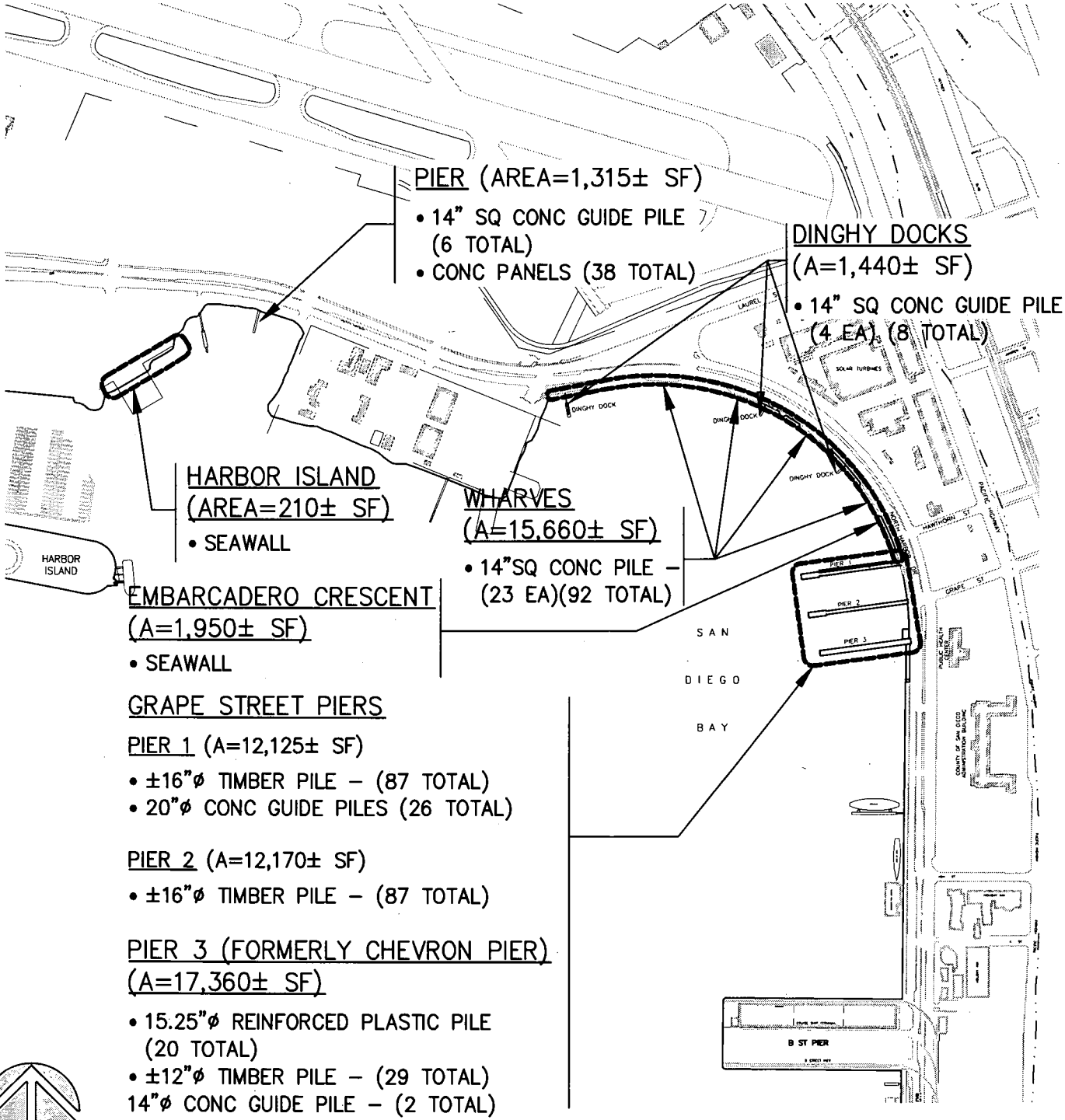

EMBARCADERO CRESCENT AND HARBOR ISLAND

SCALE: 1" = 600'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 3 OF 10 DATE: 5/10/2019 DWG NO: 331-C REV: –

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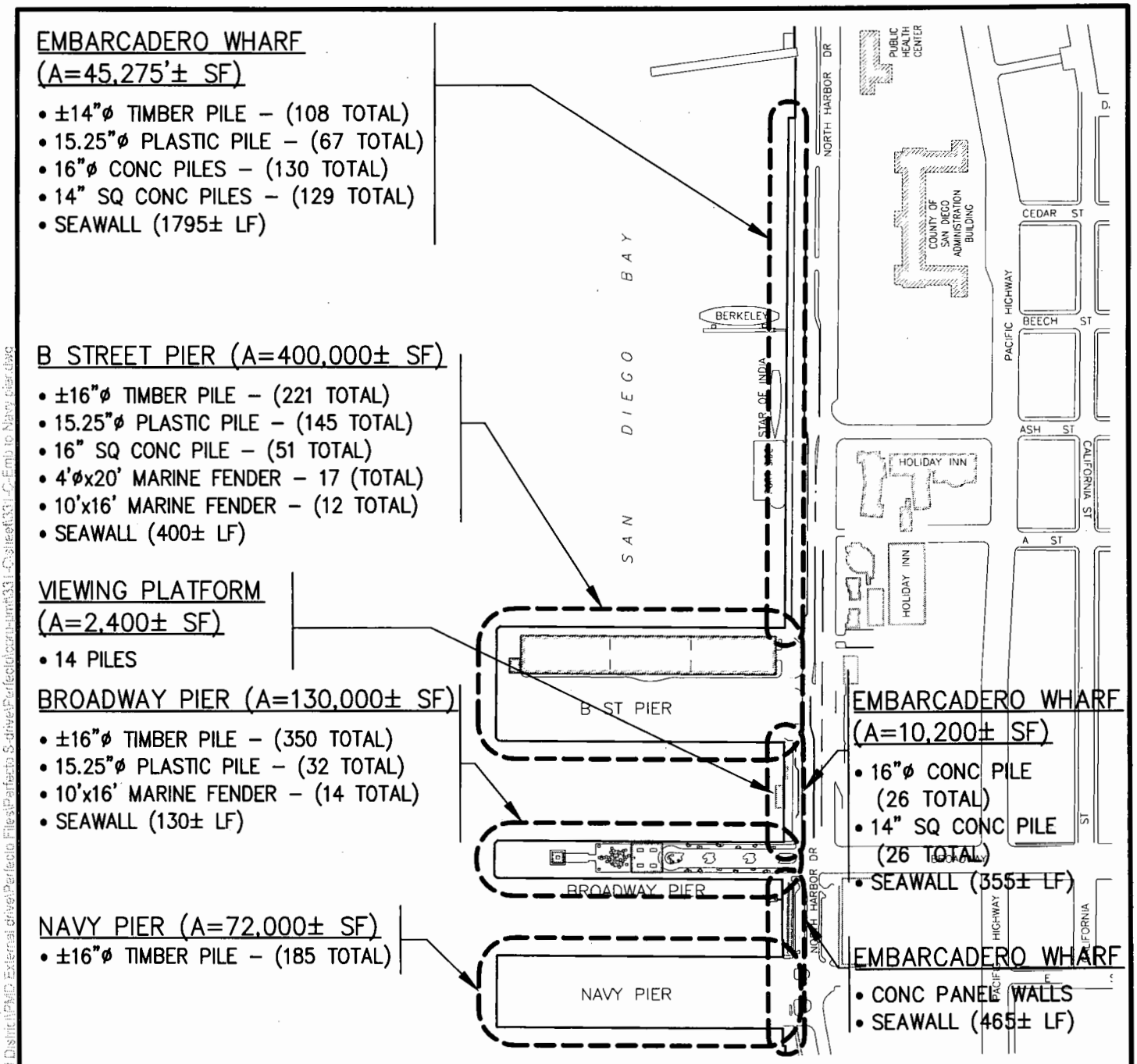
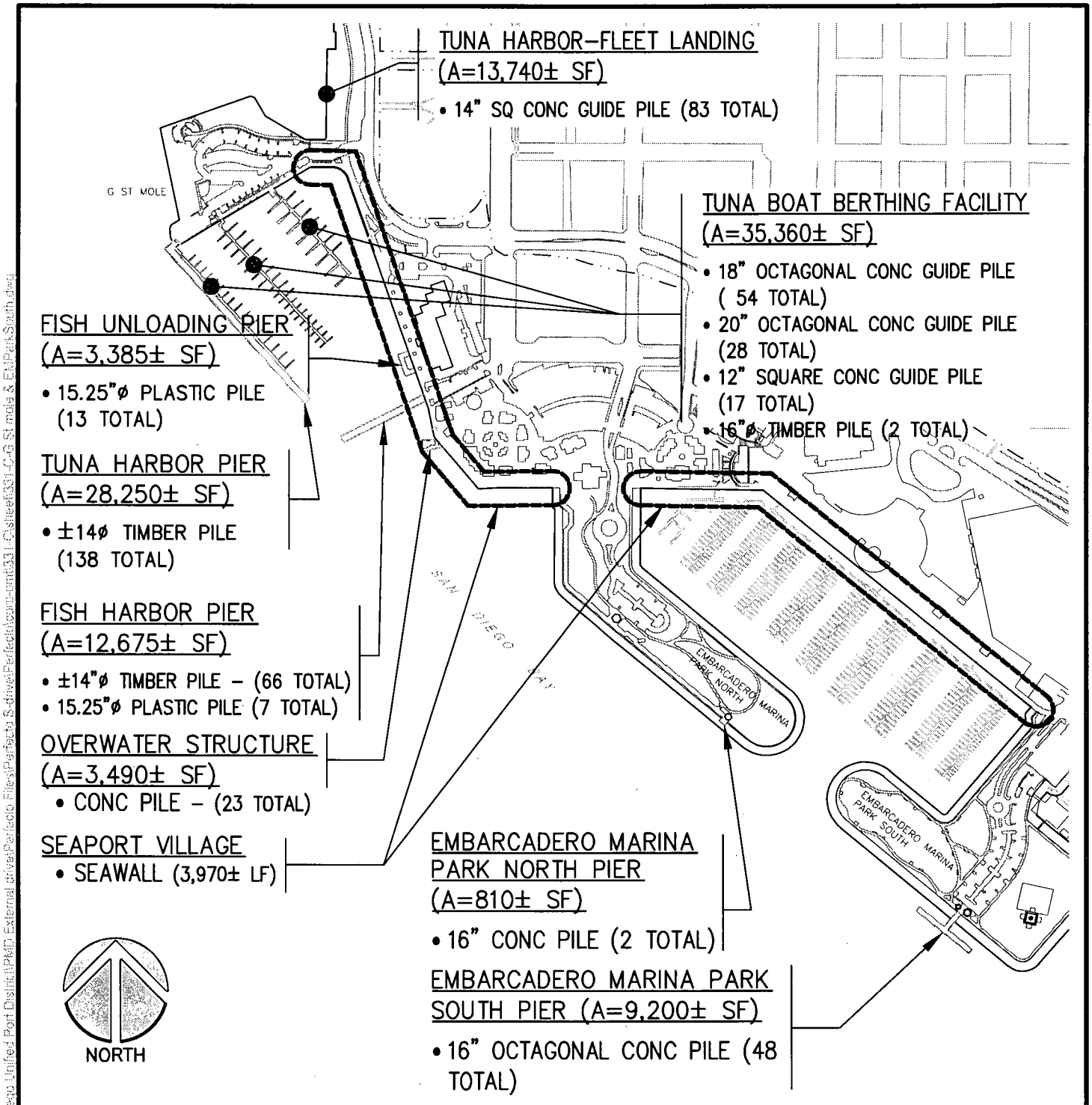


EMBARCADERO WHARF

SCALE: 1" = 500'

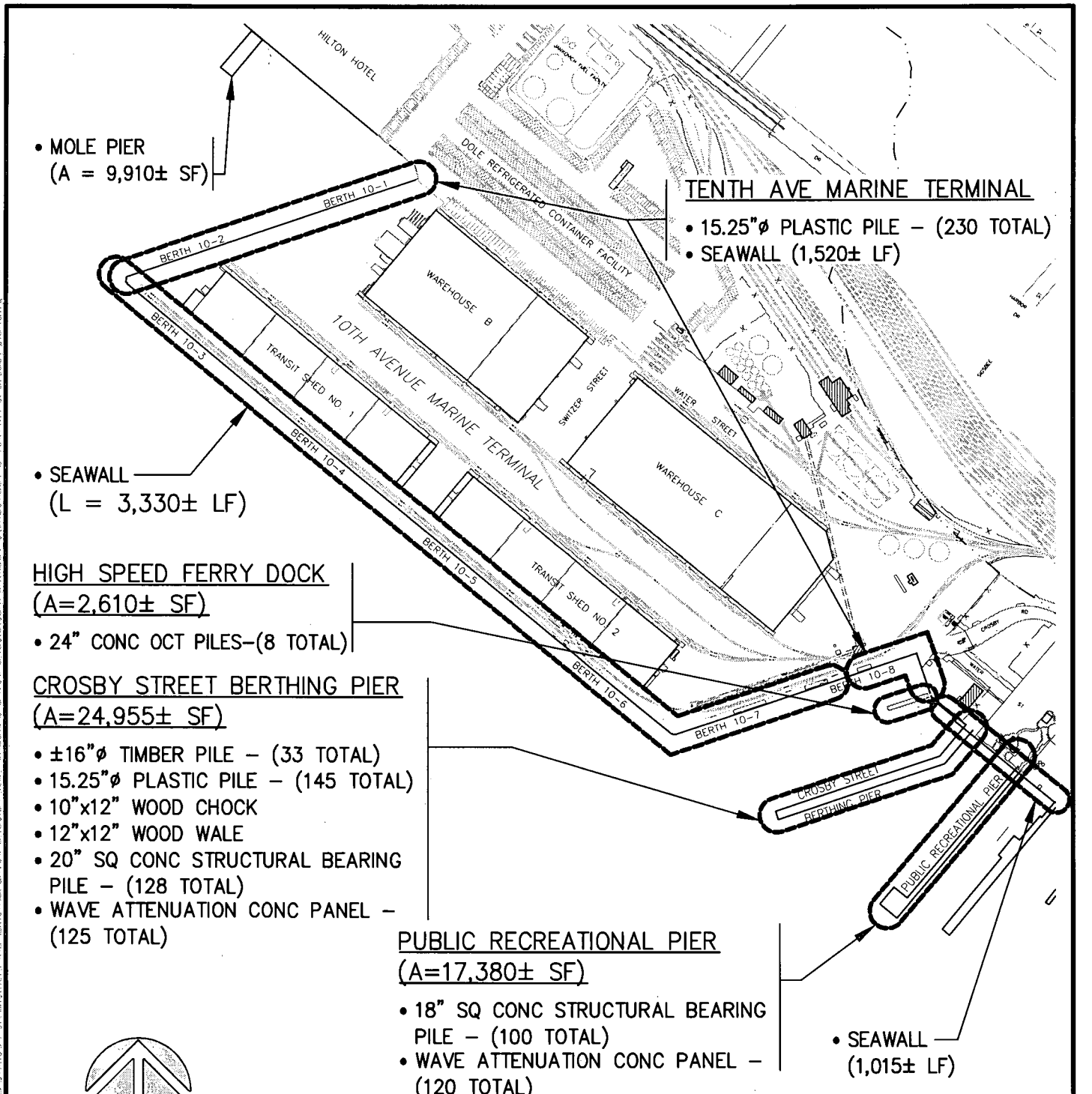
PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 4 OF 10 DATE: 5/6/2019 DWG NO: 331-C REV: –



TUNA HARBOR AND EMBARCADERO MARINA PARKS

SCALE: 1" = 600'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 5 OF 10 DATE: 5/6/2019 DWG NO: 331-C REV: –



- MOLE PIER (A = 9,910± SF)

TENTH AVE MARINE TERMINAL
- 15.25"ø PLASTIC PILE – (230 TOTAL)
- SEAWALL (1,520± LF)

- SEAWALL (L = 3,330± LF)

HIGH SPEED FERRY DOCK (A=2,610± SF)
- 24" CONC OCT PILES–(8 TOTAL)

CROSBY STREET BERTHING PIER (A=24,955± SF)
- ±16"ø TIMBER PILE – (33 TOTAL)
- 15.25"ø PLASTIC PILE – (145 TOTAL)
- 10"x12" WOOD CHOCK
- 12"x12" WOOD WALE
- 20" SQ CONC STRUCTURAL BEARING PILE – (128 TOTAL)
- WAVE ATTENUATION CONC PANEL – (125 TOTAL)

PUBLIC RECREATIONAL PIER (A=17,380± SF)
- 18" SQ CONC STRUCTURAL BEARING PILE – (100 TOTAL)
- WAVE ATTENUATION CONC PANEL – (120 TOTAL)

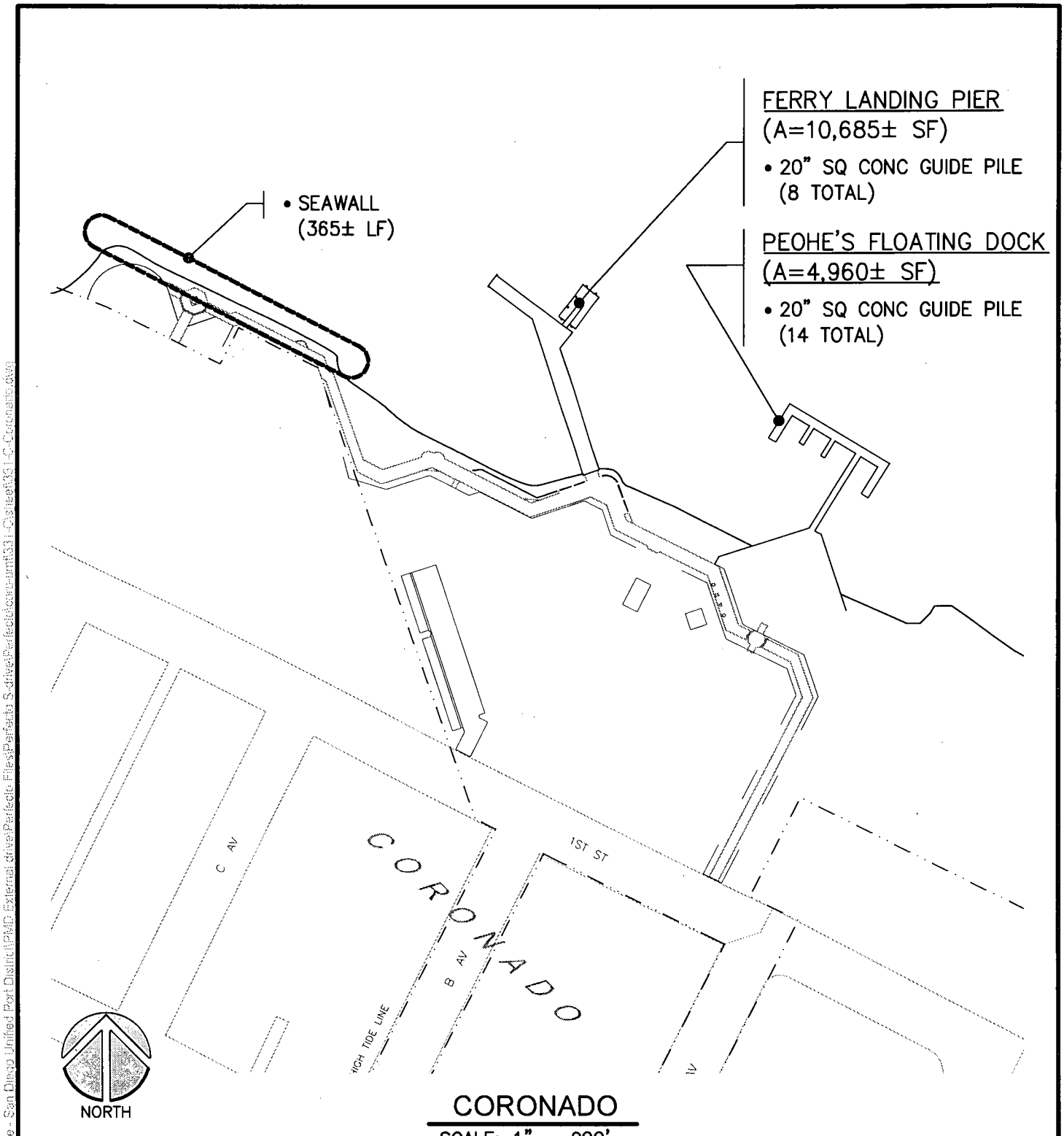
- SEAWALL (1,015± LF)

NORTH

TENTH AVENUE MARINE TERMINAL

SCALE: 1" = 500'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: SAN DIEGO COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 6 OF 10 DATE: 5/6/2019 DWG NO: 331-C REV: –



CORONADO

SCALE: 1" = 200'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101	IN: SAN DIEGO BAY
DATUM: M.L.L.W.	CHIEF ENGINEER:	AT: SAN DIEGO
ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	ERNIE MEDINA	COUNTY OF: SAN DIEGO STATE: CA
	DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT
		SHEET 7 OF 10 DATE: 5/10/2019
		DWG NO: 331-C REV: –

BERTH 24-1 (A=14,745± SF)

- ±16"ø TIMBER PILE – (36 TOTAL)
- 15.25"ø REINFORCED PLASTIC PILE (13 TOTAL)

BERTHS 24-2, 24-3 (A=83,605± SF)

- ±40"ø RUBBER FENDER SYSTEM (20 TOTAL)

BERTHS 24-4, 24-5 (A=120,460± SF)

- ±48"ø RUBBER FENDER SYSTEM (35 TOTAL)

BERTH 24-10 & 24-11 (A=97,240± SF)

- ±16"ø TIMBER PILE – (89 TOTAL)
- 15.25"ø PLASTIC PILE (76 TOTAL)
- 16"O.D. FIBERGLASS PILE – (22 TOTAL)

FISHING PIER (A=1,530± SF)

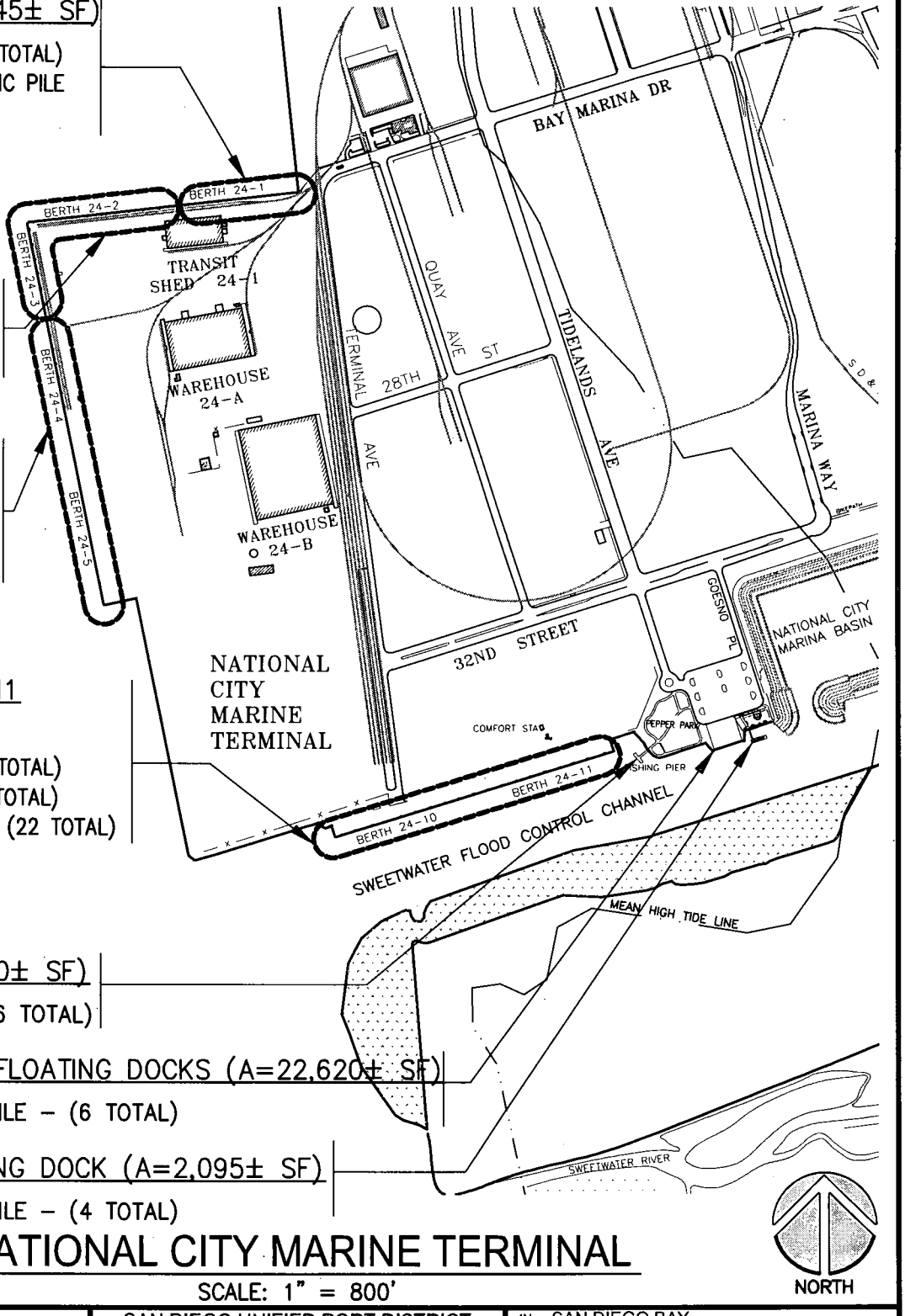
- 12" SQ CONC PILE – (16 TOTAL)

BOAT LAUNCH RAMP FLOATING DOCKS (A=22,620± SF)

- 18" OCTAGONAL CONC PILE – (6 TOTAL)

PEPPER PARK FLOATING DOCK (A=2,095± SF)

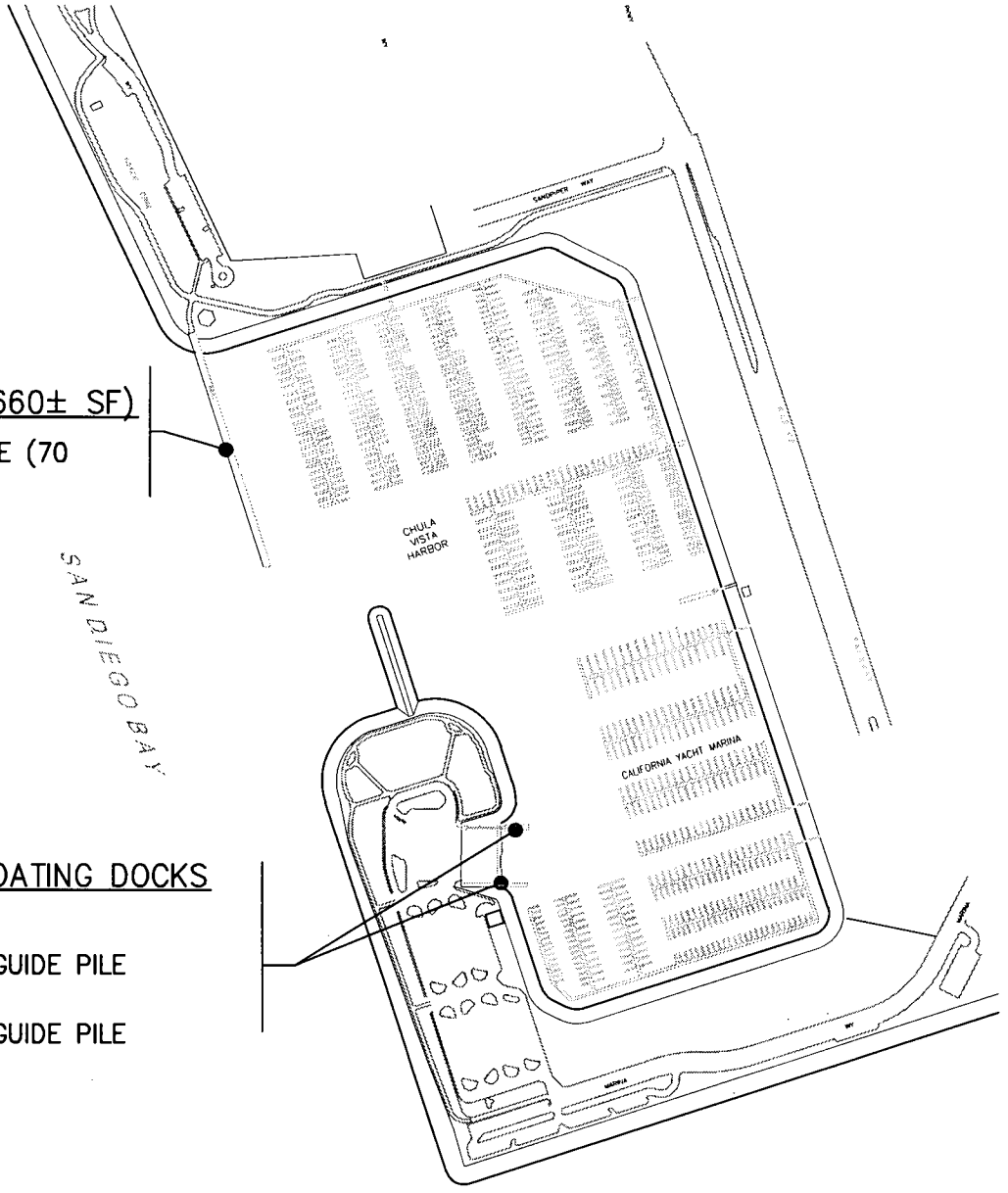
- 18" OCTAGONAL CONC PILE – (4 TOTAL)



NATIONAL CITY MARINE TERMINAL

SCALE: 1" = 800'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA DATUM: M.L.L.W. ADJACENT PROPERTY OWNERS: SAN DIEGO UNIFIED PORT DISTRICT	SAN DIEGO UNIFIED PORT DISTRICT 3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101 CHIEF ENGINEER: ERNIE MEDINA DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH	IN: SAN DIEGO BAY AT: NATIONAL CITY COUNTY OF: SAN DIEGO STATE: CA APPLICATION BY: SAN DIEGO UNIFIED PORT DISTRICT SHEET 8 OF 10 DATE: 5/6/2019 DWG NO: 331-C REV: –



FISHING PIER (A=13,660± SF)

- 14"ø WOOD FENDER PILE (70 TOTAL)

LAUNCHING RAMP FLOATING DOCKS (A=3,590± SF)

- 18" OCTAGONAL CONC GUIDE PILE (3 TOTAL)
- 16" OCTAGONAL CONC GUIDE PILE (5 TOTAL)

NORTH

CHULA VISTA

SCALE: 1" = 500'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES
SAN DIEGO, CALIFORNIA

DATUM: M.L.L.W.

ADJACENT PROPERTY OWNERS:
SAN DIEGO UNIFIED PORT DISTRICT

SAN DIEGO UNIFIED PORT DISTRICT
3165 PACIFIC HIGHWAY
SAN DIEGO, CA 92101

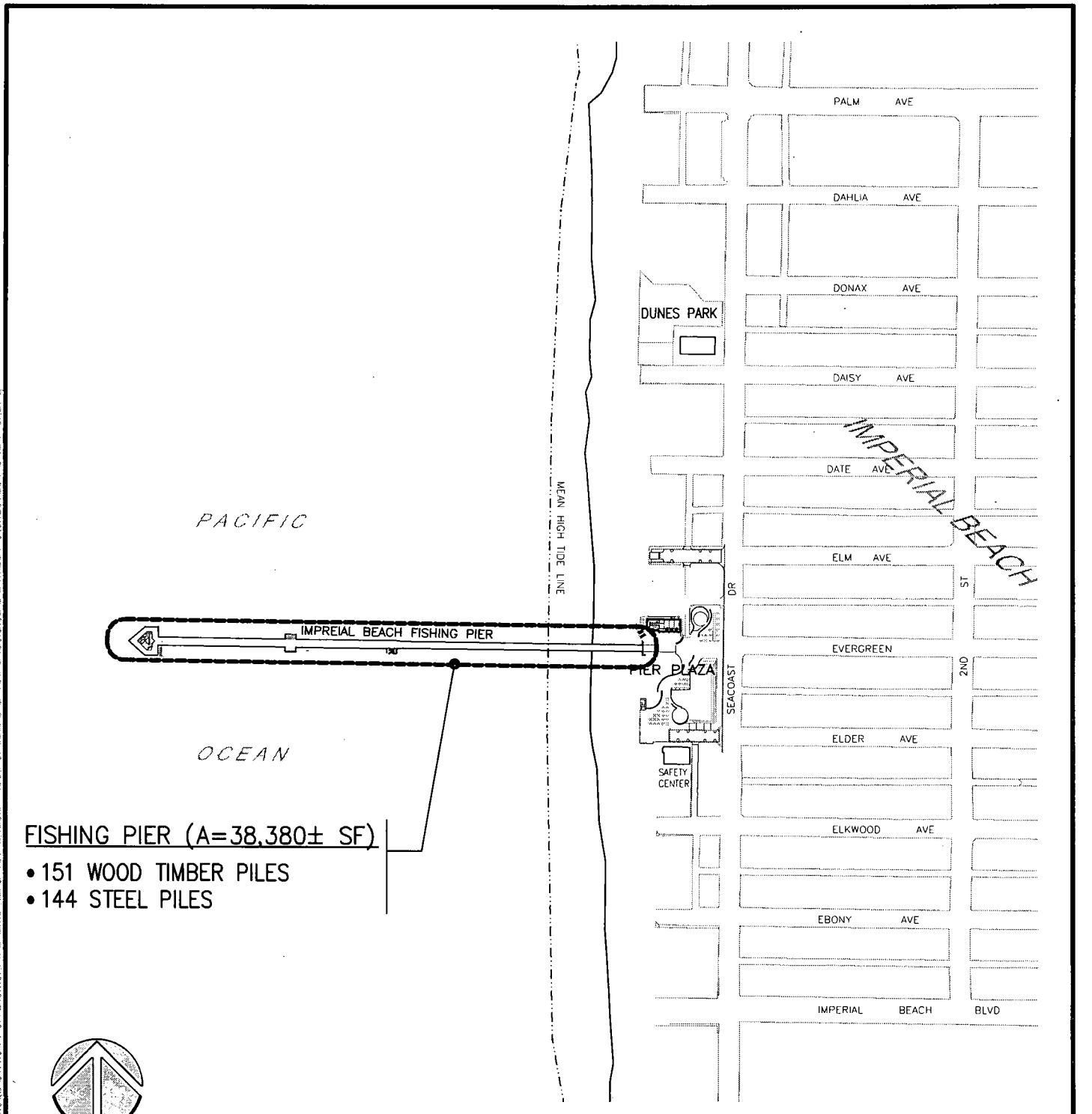
CHIEF ENGINEER:

ERNIE MEDINA

DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH

IN: SAN DIEGO BAY
AT: CHULA VISTA
COUNTY OF: SAN DIEGO STATE: CA
APPLICATION BY:
SAN DIEGO UNIFIED PORT DISTRICT

SHEET 9 OF 10 DATE: 5/6/2019
DWG NO: 331-C REV: –



IMPERIAL BEACH PIER

SCALE: 1" = 400'

PURPOSE: MAINTENANCE OF EXISTING PIERS, DOCKS, AND WHARVES SAN DIEGO, CALIFORNIA

DATUM: M.L.L.W.

ADJACENT PROPERTY OWNERS:
SAN DIEGO UNIFIED PORT DISTRICT

SAN DIEGO UNIFIED PORT DISTRICT
3165 PACIFIC HIGHWAY
SAN DIEGO, CA 92101

CHIEF ENGINEER:

ERNIE MEDINA

DRAWN BY: P DE OCAMPO CHECKED BY: D. BEACH

IN: SAN DIEGO BAY
AT: IMPERIAL BEACH
COUNTY OF: SAN DIEGO STATE: CA
APPLICATION BY:
SAN DIEGO UNIFIED PORT DISTRICT

SHEET 10 OF 10 DATE: 5/6/2019
DWG NO: 331-C REV: –

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San Diego Unified Port District

Renewal of U.S. Army Corps of Engineers
Regional General Permit No. 72 for the
Routine Maintenance, and Repair of
Existing Structures within San Diego Bay
and Pacific Ocean off Imperial Beach

Certification No. R9-2019-0140

ATTACHMENT 3

Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District

Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District

The following are the San Diego Unified Port District's (District or Port) Best Management Practices (BMPs) and Environmental Standards (collectively, "Standards") for any and all routine repairs and maintenance activities conducted by the District that involve existing overwater structures, such as piers, docks, and wharves with the potential to increase turbidity. The Standards were made available for a 30-day public review period that began on Monday, May 6, 2019 and ended on Tuesday, June 4, 2019.

The Standards address how to conduct and monitor in-water construction activities that may increase turbidity, including, without limitation, pile removal and installation via jetting, impact hammer and various vibratory methods, to ensure water quality standards are not exceeded. Implementation of the Standards are intended to protect the environment, and the water quality of the San Diego Bay and the Pacific Ocean (collectively, "Bay") during in-water construction as specified herein. The Standards apply to in-water repair and maintenance activities for existing facilities conducted by the District under its U.S. Army Corps of Engineers Regional General Permit No. 72. The Standards shall not be applicable for the construction of new facilities.

1.0 Definitions

The following list of definitions and descriptions are intended to provide clear understanding of the terms used as they specifically apply to the Standards for in-water repair and maintenance activities conducted by the District under its U.S. Army Corps of Engineers Regional General Permit No. 72.

Biological Monitor – An on-site qualified biologist designated to monitor construction activities to ensure compliance with BMPs and permit conditions that has previous experience with acoustic zone of influence (ZOI) (see Section 4.5.1). A qualified Biological Monitor's primary responsibility is to actively observe (e.g. using binoculars) and identify marine mammal and turtle species passing through the ZOI.

Compliance Station – A sampling and/or monitoring area located near the construction activities to measure water quality standards (dissolved oxygen, pH, and turbidity). Compliance station measurements are compared to measurements at a reference station to determine if construction activities are within water quality standards (see Section 3.1.1.a).

Construction Activities with the Potential to Increase Turbidity – Construction activities with the potential to disturb or suspend bottom sediment into the water column and decrease visibility (increase turbidity) include pile installation and removal via jetting, impact hammer, and/or vibratory hammer pile driving. Other activities include any construction activities that would come into contact with the Bay sediment, causing resuspension of the sediments.

Contractor – A person, firm, entity, or corporation which is contracted by the Port to perform in-water work as defined by the contract documents.

Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District

Pile Driving – Construction activities which remove or install pilings at piers, docks, and wharves. Pile driving activities can cause short-term, localized, and temporary increases in suspended sediment and turbidity during installation and removal. In order to support piers, docks, and wharves, piles are required to be driven to a depth ranging from 30 to 100 feet below the mud line. To place the piles at the appropriate depth, construction would include the use of deep foundation installation methods by mechanical equipment capable of applying repeated blows to piles with sufficient energy to advance piles to final position or required depth. The three main types of pile driving methods are summarized below:

- Vibratory hammer –The process involves attaching a vibratory hammer to the pile which uses a push and pull action of counter-rotating weights to create a vibratory oscillation. The oscillation breaks the seal between the pile and the sediment, reduces friction, and results in the pile slipping below mud line.
- Impact hammer –The process involves attaching an impact hammer to the top of the pile and uses a large weight dropped from a given height to push the pile downward and below the mud line.
- Jetting – The process involves pumping high pressure water through a nozzle located at the pile tip. The water loosens the sediment in front of the pile, thus allowing the pile to advance into the mud with very few or no impact or vibratory hammer blows.

Performance Standard – A quantitative measurement of an environmental variable comparing outside of the in-water construction activity area (e.g. outside of the silt curtain) to a measurement that regulatory agencies have established as acceptable (e.g. outside of the in-water construction area's influence) to evaluate the performance of BMPs and whether response actions are necessary (see Section 3.1). Quantitative Performance Standards typically reflect ambient levels that would be present if no construction activity occurred.

Project – Any in-water routine repairs and maintenance activities of piers, docks, and wharves in the Bay conducted by the District with the potential to increase turbidity.

Receiving Waters – All Bay waters outside of a silt curtain surrounding in-water construction activity.

Reference Station – An in-water area in the direction of the mouth of the Bay and beyond the influence of the construction activities. The reference station is used to measure ambient water quality conditions for comparison to compliance station measurements. The RWQCB establishes the distance of the reference site from the construction activities (see Section 3.1.1.a and RWQCB, 2016).

Routine Maintenance – Maintenance of in-water structures includes the removal, rehabilitation, repair, and/or replacement of any previously authorized, currently serviceable structure or fill, provided that the structure or fill is like-for-like replacement and the original use is maintained.

Silt Curtain – A floating, geotextile material which contains suspended sediment within a disturbed area long enough for the suspended sediment particles to fall out of suspension and not be transported to other areas (USACE 1997). This material is also known as a turbidity curtain.

Silt Curtain Installation Procedures – Specifications related to the design, installation, use, performance, and/or modification of a silt curtain and its related equipment (see Section 4.2.1).

Visual Water Quality Monitoring – A qualitative, visual observation of the conditions of the area outside of the in-water construction activities (e.g. outside of the silt curtain) to evaluate the performance of the Standards and whether response actions are necessary (see Section 4.2.2).

2.0 Design Review by District Engineering, Planning, & Environmental

- The District's engineering, planning and environmental departments (collectively, "design team") shall consider project design concepts (such as material choice, structural spacing, etc.) as well as feasible construction practices and procedures that reduce and/or avoid the potential for turbidity during construction.
- The design team shall review current Section 303(d) maps of the federal Clean Water Act (CWA) (33 U.S.C. Sec. 1313(d)) identifying state waters that do not meet water quality standards pursuant to the CWA and California Water Code (CWC) Section 13191.3(a) (CWC, 2004; RWQCB, 2015) and other data in the District's possession or available after reasonable research to determine the presence or absence of contaminated sediment within the proposed project work area.
- The design team shall coordinate the project construction schedule to avoid large tidal fluctuations to the maximum extent practicable in order to minimize turbidity.

3.0 Water Quality Monitoring, Performance, and Environmental Standards

3.1 Receiving Water Quality Monitoring for Construction Activities with the Potential to Increase Turbidity

The following water quality monitoring standards are required for all instances of jetting and other construction work that has the potential to increase turbidity:

- Receiving water quality monitoring shall be conducted a minimum of once per week by District staff with expertise or through a District consultant with expertise during construction activities at the project site to verify that applicable water quality standards for pH, dissolved oxygen, and turbidity as specified in Section 3.1.3 are not exceeded and the monitoring shall include the following performance standards:

3.1.1 **Monitoring Stations** – During weekly monitoring, water quality parameters including turbidity, dissolved oxygen, and pH will be measured at the construction site after pile driving activities have been underway for at least one hour and at a reference site. Monitored water quality measurements will be compared to ambient San Diego Bay reference measurements located outside of the construction area (outside silt curtain) that are not impacted by the construction.

a. Project Compliance Stations – A minimum of three locations will be established as compliance stations for the collection of water quality monitoring data. Compliance station data will be compared to reference

station data to determine if the construction activities are impacting water quality based on the performance standards in Section 3.1.3. Compliance stations will be located evenly along an arc located 200 feet from the edge of the construction area to capture all tidal and current conditions. The locations may be adjusted in the field to better target a visible turbidity plume, if a visible plume is observed.

b. Reference Station – A minimum of one station will be established as a reference station to measure ambient San Diego Bay water quality conditions and will be located in the direction of the mouth of the Bay and 1,000 feet beyond the influence of construction activities. Natural turbidity, dissolved oxygen, and pH shall be determined through measurements at the reference station in order to compare the reference station measurements to compliance stations measurements. The location of the reference station will remain the same for each project for all monitoring events.
c. Global Position System – Monitoring station positions will be located using a Global Position System (GPS) accurate to within ±3 meters.

3.1.2 **Water Quality Measurement Procedures** – Water quality measurements for turbidity, dissolved oxygen, and pH will be collected at the compliance stations so they can be compared to reference station measurements to ensure they meet the performance standards (see Section 3.1.3 below).

a. Water quality measurements will be collected approximately mid-depth (i.e. at the mid-point in the water column, for example, at 15 feet if the water depth is 30 feet) at each of the stations.
b. Monitoring depths will be determined using a depth finder with an accuracy of ±0.5 feet.
c. Water quality will be monitored using instrumentation capable of measuring dissolved oxygen, pH, and turbidity (in nephelometric turbidity units, NTUs), such as a handheld turbidity meter.

3.1.3 **Performance Standards** – The following water quality standards are based on recent Regional Water Quality Control Board permit requirements (e.g. RWQCB, 2016; RWQCB, 2017) and are required to meet performance standards[1]:

a. Hydrogen Ion Concentration (pH) – The pH shall not fall below 7.0 or rise above 9.0.
b. Turbidity – If reference station turbidity is between 0 to 50 NTUs, the maximum increase from construction activities must not exceed 20 percent of the measured turbidity at the reference station. If reference station turbidity is between 51 to 100 NTUs, the maximum increase from construction activities must not exceed 10 NTUs. If reference turbidity is

[1] Note these standards may be updated by District staff based on the most recent Regional Water Quality Control Board permit requirements.

greater than 100 NTUs, the maximum increase from construction activities must not exceed 10 percent above the reference levels.

c. Dissolved Oxygen – The dissolved oxygen concentration shall not decrease more than 10 percent from the reference station.

4.0 Construction BMPs and Standards

The following Standards shall be required for any and all routine repairs and maintenance activities conducted by the District that involve overwater structures, such as piers, docks, and wharves with the potential to increase turbidity. The Standards apply to all instances of jetting, impact hammer and vibratory pile driving. Silt curtains shall be used to minimize and contain turbidity and visual water quality monitoring shall be conducted by the contractor to ensure BMPs are in place and minimizing impacts. The Standards also include use of a Biological Monitor, if specified below, to minimize impacts to marine mammals, turtles, and fish. Pile removal and installation parameters shall be included in the project specifications. These Standards shall be supplied to bidders, if bidding is required under the California Public Contracts Code, or directly to a contractor if no bidding is required. Whenever the District requires a contractor to conduct an activity as specified in this Section 4.0, the District shall do so by including such requirements on all construction bids and plans, and conduct periodic inspections to ensure the construction BMPs and standards are being implemented during construction.

4.1 Pile Jetting

- The objective of pile jetting is to loosen sediment in front of the pile to allow the pile to advance with reduced impact hammer blows or vibration or by gravity. The District shall require the contractor to control sediment displacement by reducing the jetting volume and/or velocity where feasible.
- Prior to pile jetting, the contractor shall first "stab" the pile into the bottom substrate to advance it through the upper layer of soft sediment and then jet the pile to reduce sediment disturbance during jetting operations.

4.2 Silt Curtains

A silt curtain is a "floating geotextile material which minimizes sediment transport from a disturbed area adjacent to or within a body of water" (USACE, 1997). The principle behind the use of silt curtains is "to enclose or contain turbid water" (USACE, 1997).

- Silt curtains shall be installed for all construction activities involving pile driving, pile removal and additional activities with the potential to increase turbidity (see Section 1.0).
- Silt curtain(s) shall be installed as specified in Section 4.2.1 and shall minimize, to the extent feasible, turbidity affecting the surrounding tidal waters.
- The District shall require the contractor to furnish all necessary tools, materials, and labor for design and construction activities pertaining to the installation of the silt curtain and related equipment prior to in-water construction including, but not limited

to, pile removal, pile driving, and removal of the silt curtain and all related equipment at the completion of all in-water work.

4.2.1 **Silt Curtain Installation Procedures** – The contractor shall design and install the silt curtain and related equipment (e.g. anchor lines) in accordance with the following procedures:

1. The bottom of the silt curtain must be weighted with ballast weights or rods affixed to the base of the fabric to resist the natural buoyancy of the silt curtain fabric and lessen the tendency to move in response to currents. The silt curtain and anchoring system shall be designed to withstand expected hydraulic forces (e.g. waves, currents, vessel wakes, tidal changes) for the duration construction activities with the potential to increase turbidity.
2. The silt curtain must be anchored and deployed from the surface of the water and shall be fitted with a tidal compensating device to maintain a minimum 3-foot clearance from the Bay floor under all tidal conditions and wave oscillation. The silt curtain shall not touch the Bay bottom.
3. Silt curtains shall be deployed and maintain a continuous length of curtain, to fully surround the active in-water construction activity that has the potential to increase turbidity (see Section 1.0). The silt curtain must restrict the surface visible turbidity plume within the area of construction and must control and contain the migration of re-suspended sediments.

4.2.2 **Silt Curtain Specifications** – The contractor will provide the District information for the silt curtain including, but not be limited to, the following:

1. A description of the proposed silt curtain alignment, the silt curtain anchoring the system, and attachment points for the ends of the curtain.
2. The manufacturer's data that indicates the type and material of the silt curtain to be used.
3. How the contractor will ensure the proposed silt curtain system is installed to prevent turbidity from escaping the silt curtain and that the performance standards in Section 3.1.3 are not exceeded.
4. Contingency measures if a single silt curtain system is inadequate to contain turbidity. Contingency measures may include modification to construction practices (e.g., jetting piles) or modifications of the silt curtain system, such as fixing, adjusting, maintaining, or upgrading the silt curtain.
5. Identify installation plans for a second silt curtain, if required, to ensure performance standards in Section 3.1.3 are met.
6. Methods for monitoring the integrity of the silt curtain system during construction activities to ensure turbidity is contained within the silt curtain system and performance standards in Section 3.1.3 are met.
7. The method of removal of the silt curtain after in-water construction activities are complete to minimize turbidity.

4.2.3 **Visual Water Quality Monitoring and Other Requirements for Construction Activities with the Potential to Increase Turbidity**

1. The District shall require the contractor to conduct daily visual water quality monitoring for any visible turbidity plumes, oil or sheens, floating debris, or water discoloration associated with project construction activities. Daily visual monitoring will be conducted a minimum of one hour after commencement of construction activities with the potential to cause sediment disturbance. A monthly report of the monitoring shall be compiled and submitted to the District's Engineering and Construction Management Department. If a turbidity plume is observed, response actions shall be immediately taken (see Section 4.3).
2. At least one additional inspection shall be conducted without notice by a representative of the design team or its consultant. Additional inspections may be required based on noticeable turbidity increases within or outside the silt curtain, unexpected curtain position or behavior, construction equipment contacting the curtain, after the weekly water quality monitoring, or at the District's discretion.
3. Silt curtains will be maintained in proper working order as specified by the manufacture's specifications during all in-water work. Any torn, damaged, loosened, dislocated, gaping, or otherwise ineffectively functioning sections of the silt curtain identified during daily routine inspections shall be promptly repaired or replaced by the contractor and in-water construction shall cease until such repair or replacement occurs.
4. Contractor, or its subcontractor, personnel handling the silt curtain shall be proficient in all aspects of proper silt curtain handling, installation, maintenance, repair, deployment, relocation, storage, and removal. Written evidence of such proficiency shall be submitted to the District design team.

4.3 Response Actions to Visual Plumes Observed Outside of the Silt Curtain

- If the condition of the silt curtain is observed to be damaged, no longer positioned around the in-water construction area, or has gaps where a visible turbidity plume is forming outside of the silt curtain, the contractor shall act immediately to correct the silt curtain to prevent any turbidity outside the silt curtain.
- Actions to ensure the silt curtain is meeting performance standards in Section 3.1.3 shall include, but are not limited to, work stoppage to inspect the silt curtain; repair the silt curtain; position or reposition the silt curtain around the active work area; ensure the silt curtain has no gaps; implementation of operational modifications (e.g. fixing, adjusting, maintaining, and/or upgrading silt curtains); and/or, implementation of a second silt curtain.
- If receiving water quality monitoring indicates an exceedance of the performance standards set forth in Section 3.1.3, construction activities shall be halted until measured turbidity has decreased to levels below performance standards.
- All response actions shall be documented and reported to the District in writing and by phone immediately.

4.4 Response Actions to Water Quality Monitoring Exceedance

- In the event that visual observations or the water quality monitoring described above in Section 3.1.3, indicate an exceedance of an applicable receiving water performance standard, the following actions shall be implemented:
    1. Immediately re-take water measurements at reference and compliance stations in accordance with the procedures in Section 3.0.
    2. Evaluate the measurements at background and compliance monitoring stations and use visual observations to determine whether the exceedance is caused by construction activities or by other ambient conditions in San Diego Bay such as wind waves, boat wakes, barge/ship traffic, and storm inflow.
    3. If the exceedance is confirmed to be a result of the project construction, Staff conducting the water quality monitoring will coordinate with the District's Engineering and Construction Management Department to immediately notify the contractor to modify or cease operations related to in-water construction activities and/or inspect the BMP's to ensure they are working properly to mitigate the exceedance. Operational modifications may include fixing, adjusting, maintaining, and/or upgrading silt curtains or use of a second silt curtain.
    4. Re-evaluate water measurements at all relevant stations no more than 30 minutes later, after additional BMPs or operational modifications are implemented.
    5. If the receiving water performance standards exceedance continues to persist, even with additional BMPs, determine and implement operational modifications including modifying the rate of jetting, waiting longer to initiate pile driving, or perform more start-stops until the exceedance levels comply with the performance standards. If necessary, corresponding construction activities shall be stopped until performance standards are met. Typically, turbidity is reduced within one hour.

4.5 Soft Start Methodology for Vibratory and Impact Hammer Pile Driving

The District shall require the contractor to initiate all vibratory and impact hammer pile driving techniques with a soft start methodology in conformance with the following requirements:

- Vibratory hammer – By initiating three rounds of noise from vibratory hammers for 15 seconds at reduced energy followed by a 30-second waiting period before commencing full use of equipment.
- Impact hammer – Using an initial three sets of three low energy strikes followed by a 30-second waiting period to initiate impact driving before ramping up to full hammer energy.

4.5.1 **Acoustic Zone of Influence** – The acoustic ZOI is the linear horizontal distance from the pile driving activity at which the 180-decibel root mean squared (dBrms) sound level threshold for marine life injury for level B is not exceeded.

- Acoustic ZOIs have been determined for a variety of in-water construction equipment, materials, and methods within the Bay (e.g. see NAVFAC SW, 2018). Hydroacoustic data collection is not required for a project if the ZOI, using similar construction materials and methods, has been previously determined in the Bay (see NAVFAC SW, 2018).
- If the ZOI has not been previously determined for a project site, the District and/or a Biological Monitor hired by the District will conduct monitoring of sound pressure levels during vibratory and impact hammer pile driving to verify the ZOI.
- The ZOI is based on the following factors:
    1. Construction materials and installation equipment (e.g. pile type, composition, size; type and size of hammer).
    2. Construction methods, such as vibratory or impact hammer.
    3. Environmental conditions, such as depth, bottom composition, sound speed gradients, and scattering.
    4. The linear horizontal distance in all directions from the acoustic source to the point where the sound threshold of 180 dBrms is no longer exceeded.
- Once the ZOI is determined, a qualified Biological Monitor will continuously monitor the ZOI during pile driving activities to observe any marine mammals or turtles that approach or enter the ZOI. The qualified Biological Monitor shall be given the authority to stop all work on-site and shall do so if a marine mammal or sea turtle enters the ZOI or could be impacted by construction noise.
- The Biological Monitor shall submit monthly reports to the District discussing U.S. Army Corps of Engineers and Regional Water Quality Control Board permit compliance, and biological monitoring activities. The reports shall include the following:
    1. Recorded daily visual observations throughout construction activities.
    2. Records of water and biological monitoring information shall include:
        a. The date, exact place, and time of sampling or measurements;
        b. The individual(s) who performed the sampling or measurements; and
        c. The results of monitoring; and a summary of biological observations of sensitive biological resources, water quality observations noting any sheen, color, odor, floating particulates, and surface visible turbidity plume, weather conditions, such as wind speed/direction and cloud cover.

5.0 Disposal Requirements for Creosote Treated Piles

There may be some creosote piles still in service at District facilities, however they are rare to encounter. Any creosote piles at a project site are identified during the design phase and review by the District design team. The methodology for removal of creosote-treated piles is the same as non-treated piles with the exception that should any pile cutting

be required, all creosote pile chips, splinters, and debris resulting from pile cutting shall be hand-collected and/or screened from the water for disposal at an appropriate waste facility per (for creosote-treated wood guidelines, please see NOAA Fisheries Guidelines (NOAA Fisheries SW 2009) and the Environmental Protection Agency's Ecological Risk Assessment for Creosote (EPA 2008)). Creosote pile handling and disposal follows typical contaminated material methods with the manifest documented and the licensed landfill recorded.

6.0 References

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San Diego Unified Port District

Renewal of U.S. Army Corps of Engineers
Regional General Permit No. 72 for the
Routine Maintenance, and Repair of
Existing Structures within San Diego Bay
and Pacific Ocean off Imperial Beach

Certification No. R9-2019-0140

ATTACHMENT 4

California Environmental Quality Act

Finding of Categorical Exemption by San Diego Water Board, a Responsible Agency under the California Environmental Quality Act

Notice of CEQA Exemption

Appendix E

To: ☑ Office of Planning and Research
PO Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3011

From: RWQCB – San Diego
2375 Northside Drive
Suite 100
San Diego, CA 92108

☐ County Clerk (Recorder), County of San Diego
1600 Pacific Hwy., Room 260, San Diego, CA 92101

Project Title: Renewal of USACE RGP No. 72 for the Routine Maintenance, and Repair of Existing Structures Within San Diego Bay and Pacific Ocean off Imperial Beach.

Project Location: San Diego Bay and Imperial Beach Fishing Pier within the Cities of Imperial Beach, Chula Vista, National City, San Diego, and Coronado.

Project Location - City: see above **Project Location – County:** San Diego

Description of Project:
Routine maintenance/repair of docks, wharves, piers, and piles; pier and fender piles; pier deck boards, blocks, camel logs, installation of marine fenders, and other ancillary items.

Name of Public Agency Approving Project:
California Regional Water Quality Control Board – San Diego Region

Name of Person or Agency Carrying Out Project: San Diego Unified Port District

Exempt Status: (*check one*)
☐Ministerial (Sec. 21080(b)(1); 15268);
☐Declared Emergency (Sec. 21080(b)(3); 15269(a));
☐Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
☒Categorical Exemption Class 1 – Sec. 15301; Class 2 – Sec. 15302
☐Statutory Exemptions.

Reason why project is exempt:
Categorical Exemptions for maintenance, replacement, or reconstruction of existing facilities.

Lead Agency: California Regional Water Quality Control Board – San Diego Region

Contact Person: Mike Porter **Area Code/Telephone/Extension:** 619-521-3967

If filed by applicant:
1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the projects? ☑ Yes ☐ No

Signature: David W. Gibson Date: 22 November 2019 Title: Executive Officer

☑ Signed by Lead Agency
☐ Signed by Applicant

Date received for filing at OPR:_____

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

September 17, 2019

Robert Smith
Department of the Army
Los Angeles District Corps of Engineers
Carlsbad Field Office
5900 La Place Court, Suite 100
Carlsbad, California 92008

Mr. Smith,

On July 15, 2019, NOAA's National Marine Fisheries Service (NMFS) received your letter requesting to initiate informal consultation pursuant to Section 7 of the Endangered Species Act of 1973 (ESA), as amended, for permit issuance to the Port of San Diego (POSD). The POSD submitted an application (File No. SPL-2019-00478-RRS) to the U.S. Army Corps of Engineers (USACE) for renewal and re-authorization of the POSD Regional General Permit Number 72 (RGP 72) for routine maintenance work under RGP 72 at various locations in San Diego Bay and the Pacific Ocean. The USACE is processing the RGP 72 as a five-year renewal of the existing RGP 72, which expires on November 20, 2019. In your letter, the USACE requested concurrence that the proposed action may affect, but is not likely to adversely affect species listed as threatened or endangered under the ESA. This response to your request was prepared by NMFS pursuant to Section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence. Because the proposed action occurs in areas where marine mammals may be found, NMFS also provides comments relative to compliance with the Marine Mammal Protection Act (MMPA; USC § 1361 et seq.).

This letter underwent pre-dissemination review using standards to utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). A complete record of this consultation is on file at the NMFS Long Beach Office).

Proposed Action and Action Area

Work to be covered under RGP 72 would include: routine maintenance of docks, wharves, piers, and piles on tidelands both in San Diego Bay and in the Pacific Ocean at the Imperial Beach Pier (Figure 1); like-for-like repair or replacement of damaged and broken wooden, concrete, and/or plastic pier and fender piles, as needed; and like-for-like repair or replacement of pier, decks,

deck boards, blocks, camel logs, installation of marine fenders, and other ancillary items, as needed. No work approved under this permit would result in additional shading or overwater coverage. The work shall be done in association with the POSD Master Plan and the RGP 72 renewal application to the USACE. The existing RGP expires on November 20, 2019, and the proposed RGP would be valid for a period of five (5) years. In order to avoid the California least tern nesting season, work will not occur from April 1st through September 15th.

Work to be covered under the renewed RGP 72 includes the following locations and actions:

1. Chula Vista Bayfront: Fishing Pier and Launching Ramp Floating Docks
2. Coronado Bayfront: Ferry Landing Pier, Seawall, and Peohe's Floating Dock
3. Imperial Beach: Fishing Pier
4. Harbor Island and Embarcadero Crescent: two seawalls, Dinghy Docks, Pier, Wharves, Grape St. Piers 1-3 (formerly known as Chevron Pier)
5. National City Marine Terminals and Bayfront: National City Marine Terminals 24-1 through 24-5, 24-10, and 24-11, the Fishing Pier, Boat Launch Ramp Floating Docks, and Pepper Park Floating Dock
6. Embarcadero Wharf: Embarcadero Wharf seawalls, B St. Pier, the Viewing Platform, Broadway Pier, Navy Pier
7. Tuna Harbor and Embarcadero Marina Parks: Tuna Harbor Fleet Landing, Fish Unloading Pier, Tuna Harbor Pier, Fish Harbor Pier, Tuna Boat Berthing Facility, Seaport Village seawall, Embarcadero Marine Park North and South Piers
8. Shelter Island Docks and Piers: Driscoll's Wharf, Piers and Floating Docks (La Playa Piers), Shelter Island Viewing Platform, Boat Launch Breakwaters and Floating Docks, Fishing Pier and Floating Dock, Transient Vessel Dock, and Harbor Police Dock
9. Tenth Avenue Marine Terminal: Tenth Avenue Marine Terminal Berths 10-1 through 10-8, Seawall, Mole Pier, High Speed Ferry Dock, Crosby Street Berthing Pier, and Public Recreational Pier

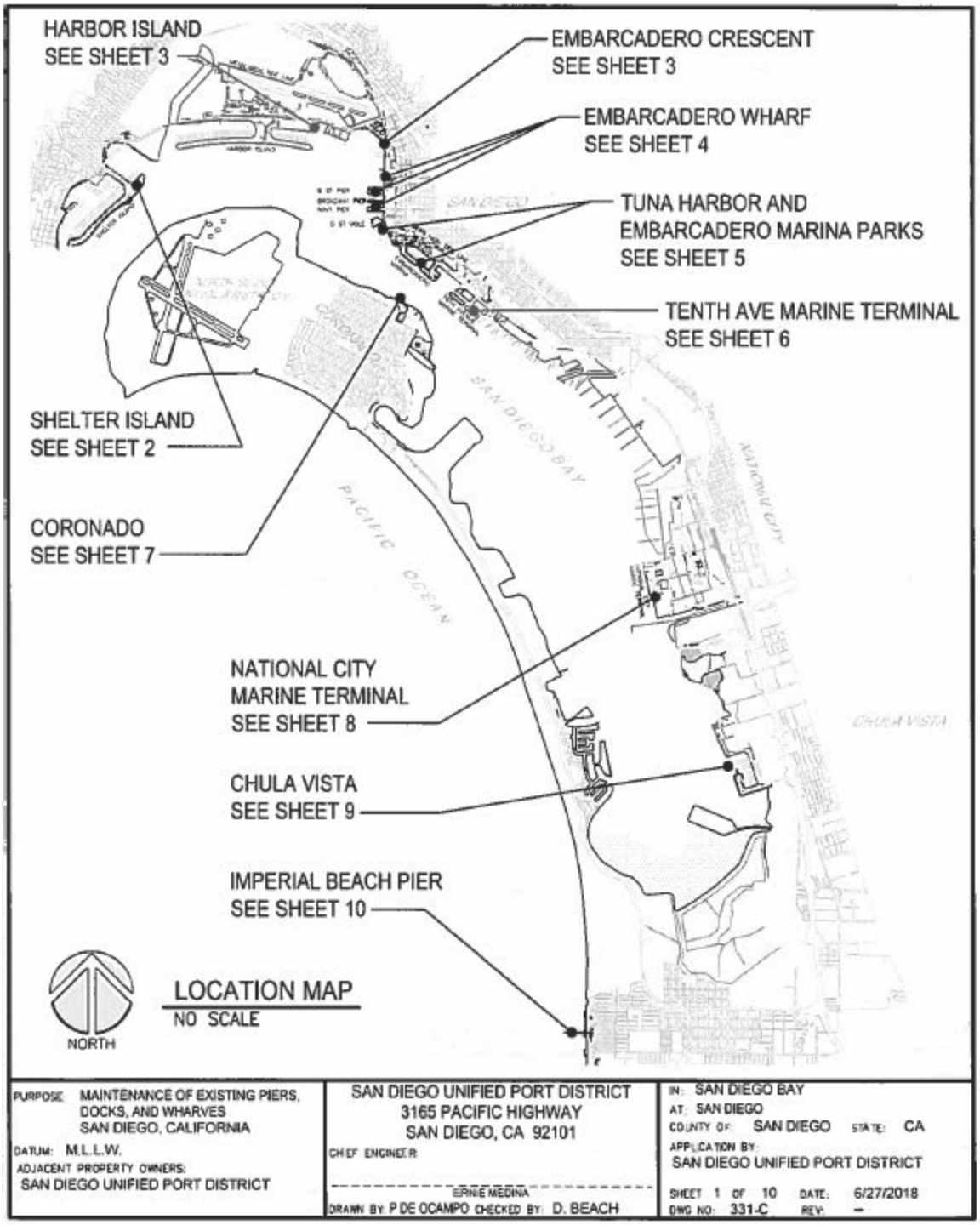


Figure 1. Proposed Project Location. The proposed RGP 72 renewal will cover projects throughout San Diego Bay. The work that is expected to be completed during this RGP cycle will occur at the Embarcadero Wharf, Tuna Harbor and Embarcadero Marina Parks, Tenth Avenue Marine Terminal, and National City Marine Terminal. (From POSD 2019)

The current estimate for the structural work covered by the five-year RGP 72 renewal will involve impacts in, under, and over navigable waters regulated under Section 10 of the Rivers

and Harbors Act is 1.6 acres of navigable waters (with no expected eelgrass or wetland impacts). The projected work for the five-year renewal is for the B St. Pier, Tuna Harbor Docks 2 and 3, the Navy Pier, National City Marine Terminal's Berths 24-3 and 24-11, and the Tenth Avenue Marine Terminal Crosby Pier. All other structures described above will still be covered as shown in the POSD's application. During a teleconference on July 17, 2019 between NMFS, the USACE, and the POSD, the POSD indicated that none of the activities in Chula Vista covered by the proposed RGP are expected to be completed during this RGP renewal cycle. Projects are expected to be completed outside of the California least tern (CLT) nesting season, which occurs from April 1 through September 15. Per electronic communications dated August 28, 2019, individual activities are expected to be completed within five weeks of activity commencement.

The proposed actions covered under RGP 72 occur at various locations throughout San Diego Bay and within the Pacific Ocean. The action area includes the geographic extent of the project as based on direct and indirect physical, biological, and chemical effects associated with each of the proposed project elements, as well as the extent of any interrelated and interdependent activities. The entirety of the action area is defined by the outermost extent of all of the zones of potential effect combined. For the proposed project, the action area includes all construction sites and any transit routes to be used by project-related vessels. Although the RGP covers actions throughout San Diego Bay and within the Pacific Ocean, the expected work to be done during this renewal period will only occur within the North-Central and South- Central ecoregions of San Diego Bay.

Avoidance and Minimization Measures:

1. Pile Jetting – Prior to pile jetting, the contractor shall first "stab" the pile into the bottom substrate to advance it through the upper layer of soft sediment and then jet the pile to reduce sediment disturbance during jetting operations. Additionally, soft start methods will be utilized during pile installation.
2. Silt Curtains – Silt curtains are required for all construction activities involving pile installation, pile removal, and/or additional activities with potential to increase turbidity. Silt curtains will be maintained in proper working order during all in-water work. And torn, damaged, loosened, dislocated, gaping, or otherwise ineffectively functioning sections of the silt curtain identified during routine inspections shall be promptly repaired or replaced by the contractor, as necessary, to maintain the required performance standards.
3. Marine Mammal Protection – To protect marine mammals and sea turtles sensitive to the acoustic impacts associated with pile driving activities, the contractor is required to initiate all vibratory and impact hammer pile driving techniques with a soft start methodology.

Biological Monitor – An on-site qualified biologist shall be designated as a biological monitor to monitor construction activities and ensure compliance with Best Management Practices (BMPs) and permit requirements. The monitor will actively observe and identify marine mammal and turtle species passing through the acoustical zone of influence. Per teleconference on July 17,

2019 between NMFS, the USACE, and the POSD, the monitor will observe a minimum 30 meter/100 foot radius around project activities.

1. The monitor will be given the authority to stop all work on site if a sea turtle or marine mammal enters the monitoring area.
2. Water Quality Monitoring by Port – Water quality monitoring will be conducted a minimum of once per week by Port staff during construction activities with the potential to increase turbidity at the project site to verify that applicable water quality standards for pH, dissolved oxygen, and turbidity are not exceeded. During weekly monitoring, parameters will be measured at the project site after pile driving activities have been underway for at least one hour, and at a reference site located outside of the construction area and not impacted by the construction.
3. Water Quality Monitoring by Contractor – The contractor shall conduct daily visual water quality monitoring and compile into a daily report to be submitted monthly to the Port, which identifies any visible turbidity plumes, oil or sheens, floating debris, or other issues associated with project construction activities. Daily visual monitoring will be conducted a minimum of one hour after commencement of construction activities with the potential to cause sediment disturbance. If monitoring indicates an exceedance of acceptable standards, measurements will be re-taken. If the second sample shows the exceedance is caused by construction activities, monitoring staff will immediately notify the contractor to modify or cease operations and to ensure proper equipment functionality. Water measurements will be re-evaluated no more than 30 minutes after modifications are implemented.
4. Debris Control – Debris netting will be utilized, and 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.
5. All work would include pre-construction surveys for eelgrass, the invasive *Caulerpa taxifolia*, and wetlands as is consistent with conditions outlined in the current RGP 72 and the California Eelgrass Mitigation Policy (CEMP).
6. Creosote-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 creosote-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.

Action Agency's Effects Determination

The proposed project involves routine maintenance of existing structures within San Diego Bay, California. For the proposed action, the USACE determined that the project consisting of the above-mentioned work may affect, but is not likely to adversely affect green sea turtles (*Chelonia mydas*). Because the USACE did not distinguish or identify which ESA-listed distinct population segment (DPS) of green sea turtle may be affected, we consider that the East Pacific DPS may be affected by the proposed action. The USACE, as the lead agency, has determined that no other ESA-listed species are expected to be affected in the proposed project area, and therefore are not addressed in the consultation request. Additionally, no other interdependent or interrelated actions are associated with the proposed project.

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, "effects of the action" means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is not likely to adversely affect listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those that are extremely unlikely to occur.

San Diego Bay is divided into four distinct ecoregions: North Bay, North Central Bay, South Central Bay, and South Bay. Surveys conducted throughout the Bay have found that green sea turtles generally forage and are typically found within the boundaries of the South Bay ecoregion, which has consistently shown to have higher eelgrass distribution in comparison to other regions. In a 2017 baywide survey, it was found that of the 1,692.8 acres of eelgrass in San Diego Bay, eelgrass in South Bay totaled 1,287.1 acres, or about 76 percent (NAVFAC SW and Port of San Diego 2018). Turtles observed in this area have been known to frequent and forage in waters near the former South Bay Power Plant, which ceased operations in 2010 (MacDonald *et al*. 2012). Researchers believe that the turtles were attracted to the anthropogenically warmed habitats, such as those created by the warm effluent from power plants (Crear *et al*. 2016). Recent observations in monitoring and tracking green sea turtle movement throughout the Bay have provided information that indicates some activity outside of South Bay, with relatively short duration movements between other areas and back to South Bay (Madrak *et al*. 2014). These include observations during the winter and spring months when water temperatures are generally cooler.

Researchers believe that San Diego Bay is an important foraging area for the East Pacific DPS of green sea turtles along the west coast of the United States. The shallower waters of the highly urbanized San Diego Bay provide green sea turtles with valuable coastal foraging resources, such as marine algae and seagrass. Approximately 60 green turtles make up a local resident foraging population (Eguchi *et al*. 2010, In Review) that NMFS believes are likely to be members of the

Mexican breeding stock that originates from nesting beaches in the Revillagigedo and Tres Marias Archipelagos and Michoacán (Dutton *et al*. 2019, Eguchi *et al*. In Review). Green sea turtles are attracted to the shallow waters and relatively high concentrations of eelgrass that are typical of the Southern Ecoregion of San Diego Bay; the known presence of eelgrass – an important food and habitat item for turtles and their prey – likely influences sea turtle activity patterns within San Diego Bay (Lemons *et al*. 2011). Previous data from tag-recapture studies suggested that San Diego Bay is a productive habitat for green sea turtles, with these turtles showing faster growth rates when compared to green turtles found in more tropical environments (Eguchi *et al*. 2012). However, recent studies show that, with the decommissioning of the power plant in South San Diego Bay, these turtles have lost this thermal refuge and their somatic growth rates are expected to slow down (Eguchi *et al*. In Review).

Per documentation provided by the USACE and verified during the July 17, 2019 teleconference between NMFS, the USACE, and the POSD, the activities that would occur under the proposed RGP 72 renewal would occur at the Embarcadero Wharf and the Tuna Harbor and Embarcadero Marina Parks in the North Central ecoregion, and the Tenth Avenue Marine Terminal and National City Marine Terminal in the South Central ecoregion. Previous research has indicated that areas outside of the South Bay ecoregion are not as commonly visited by and do not appear to sustain the regular presence of green sea turtles in comparison to South Bay. However, occasional observations of green sea turtles by the public and U.S. Navy personnel, historical records of sea turtle strandings in San Diego Bay (NMFS unpublished stranding data), and more recent research using satellite telemetry (Bredvik *et al*. 2015) indicate that the occasional presence of green sea turtles throughout San Diego Bay can occur at any time of year. Taking the above into consideration, it is reasonable to expect that green sea turtles may be found within the project areas while project activities are underway.

The potential effects to green sea turtles in the project areas as a result of project activities include disturbance or injury as a result of project activities, including the use of boats, barges, and any other equipment as needed, to support the maintenance activities covered under the proposed RGP 72. Any turtle present in the project area could receive significant injuries if struck by a vessel or equipment being used. These types of construction activities, particularly the removal and installation of piles, can also be relatively loud and have the potential to disturb any animals in the vicinity of the activity generating the noise. Additionally, habitats that are in the vicinity of the project area that may be utilized by sea turtles – primarily seagrass beds – have the potential to be impacted via disturbance or degradation. In their consultation request, the USACE indicated their intent to employ the avoidance and minimization measures detailed above. These measures are expected to minimize the risk of potential adverse effects to green sea turtles caused by the proposed activities in the unlikely event that a turtle is encountered during the project.

Direct Contact Injury

In general, the risks of direct contact injury for green sea turtles as a result of the proposed maintenance and construction activities are low, as turtles do not occur as commonly in the North Central and South Central ecoregions of San Diego Bay, based on the information previously described. However, because there is a possibility for green turtles to be present in

the action area, the proposed project includes measures that are intended to minimize the risk of sea turtles coming into direct contact with any vessels, equipment, or debris. For example, a minimum 30 meter/100 foot zone of influence (ZOI) will be monitored by a biological monitor. If the ZOI has not been previously determined for a project site, a monitor will monitor sound pressure levels during pile driving to verify the ZOI. Per the July 17 teleconference between NMFS, the USACE, and the POSD, and verified through electronic communications on August 19, 2019, the POSD anticipates that monitoring will cover 30 meters/100 feet around project activities. If a turtle is observed within the monitoring zone, the monitor will have the authority to stop all work on-site. If any turtles are in the project area but avoid detection, we expect that those turtles will detect the commencement of project activities as construction equipment and/or vessels begin to ramp up operations in the turtle's immediate vicinity, and will have an opportunity to move away, especially during the initial stages of mobilizing equipment and vessels for work.

In addition to monitoring and maintaining a perimeter around construction activities, other measures will be included as part of the proposed RGP. For example, debris netting will be used to prevent the spread of project-related debris into the Bay. Additionally, silt curtains will be used during pile removal and installation. In addition to minimizing the impacts caused by increased sediments and/or debris, these measures are also expected to discourage or prevent sea turtles and other marine life from entering project areas.

While there is no mandated speed limit for vessels that are towing barges away from construction sites, vessels with barges in tow are expected to travel at relatively slow speeds (less than 10 knots) in order to meet the general expectations for safe navigation as outlined by the USCG as an overall requirement for all vessels operating in all U.S. waters at all times (COLREG Rule 6; 33 CFR §83.06). The severity of injuries resulting from a collision depends on the size and speed of the vessel (Knowlton and Kraus 2001; Laist *et al*. 2001; Vanderlaan and Taggart 2007). For example, research has shown that lethality, defined as mortality or serious injury, increases with vessel speed; the most dramatic increase in lethality to large whales occurred between 10 and 14 knots (Vanderlaan and Taggart 2007). As previously mentioned, NMFS expects that project-related vessels will be moving at relatively slow speeds while conducting project-required vessel operations. While vessel collisions are the primary identified cause of green sea turtle strandings along the west coast of the United States (LeRoux 2015, NMFS unpublished stranding data), the likelihood of collisions between sea turtles and project vessels at such slow speeds is remote, as we expect vessel operators and biological monitors to be alert and mindful of nearby animals, and turtles to be able to avoid collisions.

NMFS expects that the implementation of the proposed avoidance and minimization measures will be effective at reducing the risks of direct contact between sea turtles and vessels/equipment. Furthermore, over the last 12 years, the POSD has not had any instances where work affected green sea turtles, based on the existing monitoring data. As a result of the low likelihood that sea turtles will commonly and/or frequently be in the project areas, the additional impact minimization measures that can be triggered as a result of monitoring and avoidance measures that have been proposed, NMFS concludes that the likelihood of direct contact with vessels and/or construction equipment resulting in injury or mortality as a result of the proposed project is discountable.

Acoustic Exposure

Pile driving activities are expected to generate underwater noise that may disturb sea turtles; however, San Diego Bay is generally a noisy area, especially in the North and Central ecoregions where waters are generally deeper (compared to the South Bay ecoregion). Ambient noise levels within San Diego Bay have been recorded between 120 and 130 decibels (dB) (NAVFAC SW 2012). According to the California Department of Transportation's (CALTRANS) 2015 compendium, the source levels for pile installation were measured at 188 dB peak, 176 dB RMS and 166 dB SEL for 24 inch concrete piles; 177 dB peak and 153 dB RMS for 12 inch plastic piles; and 165 dB peak, 150 dB RMS, and 150 dB SEL for 12 inch steel H piles. Although there is little data that exists regarding the behavior of sea turtles in response to noise generated by pile driving activities, NMFS expects that the proposed avoidance and minimization measures should reduce the potential disturbance resulting from these activities. Therefore, considering the proposed avoidance and minimization measures (specifically, pile jetting and soft start methods), lack of foraging habitat, and expectation for turtles to avoid project areas, NMFS concludes that the likelihood of impacts to green sea turtles resulting from acoustic exposure to be insignificant.

Contamination

The proposed project has the potential to impact the marine environment through the release of contaminants, specifically creosote during the removal of creosote-treated piles, and during repairs to concrete piles. The impacts of creosote on sea turtles is not fully understood; however, considering the minimization measures for creosote-treated piles (such as using a containment screen if creosote-treated piles need to be cut), NMFS anticipates that any contamination impacts resulting from creosote exposure will be insignificant and discountable. Potential contaminants also include, but are not limited to, concrete debris and dust, and epoxy grout. Measures to avoid and/or minimize the spread of contaminants and debris include the use of debris netting, daily (visual) and weekly (sampling) water quality monitoring, and requirements for creosote-treated piles. Given these measures, NMFS concludes that any contamination impacts caused by projects covered under RGP 72 will be discountable.

Impacts to Sea Turtle Foraging

The proposed action may result in impacts to relatively small amounts of eelgrass habitat near project activities. The USACE has proposed to implement pre-construction eelgrass surveys for all work included in the RGP. As described throughout this effects analysis, the potential effects of behavioral avoidance of noise disturbance are expected to be insignificant and discountable to the health and fitness of green sea turtles, due to the fact that the project area is not expected to consist of common sites for green turtle foraging, and that adequate foraging habitat exits away from project areas. Similarly, NMFS also expects that if any loss of eelgrass habitat occurs as a result of the project, those losses would not significantly affect the foraging habitats of green turtles, as the project area is not expected to provide a significant food source. Additionally, the USACE has indicated that if the project causes impacts to eelgrass, those impacts will require mitigation in accordance with the California Eelgrass Mitigation Policy (CEMP). Considering the measures included in the proposed project that aim to minimize the risks of impacts to

eelgrass, and the relatively low likelihood that green sea turtles are expected to be in the project areas and utilize any available resources that may be found there at that time, and the proposed mitigation for any impacted eelgrass, NMFS concludes that the potential risks of impacts related to the quality, quantity, or availability of sea turtle foraging habitat in San Diego Bay as a result of the proposed project are expected to be discountable.

General Disturbance

In general, all in-water construction projects present some degree of risk or disturbance to any green sea turtles that may be present in the project area. Pile driving and any other vessel-based operations that may involve the generation of underwater and/or surface sounds or increase turbidity in the water column have the potential to create some level of disturbance for any green sea turtles that may be nearby. Little data exists on the behavior of sea turtles in response to noise generated by pile driving activities, but we expect the reaction to any disturbance that may be created by the proposed actions will be avoidance of the immediate project area. Given the lack of substantial foraging habitat in the North Central and South Central ecoregions (compared to South), we do not expect turtles to spend significant amounts of time in these more northern portions of the Bay. Therefore, avoidance of the area of the proposed project is not likely to significantly impact or disrupt the regular movements or behaviors of turtles. Avoidance of a small portion of available foraging habitat is not likely to limit foraging abilities or have any detectable effect on the health of sea turtles, as they are not expected to rely specifically or exclusively on the project areas for forage, rest, or refuge, especially given the quantity and quality of eelgrass habitat further south. Therefore, NMFS expects that any effects or disturbance resulting from exposure to project activities will be insignificant, given the low probability that turtles will be in the project areas for extended periods of time and the lack of any expected impact on health and fitness that avoidance of these areas would have on green sea turtles.

Continued Existence of Structures

Structures in, on, and/or above the marine environment often require some degree of maintenance to ensure their continued safe use. However, the continued existence of these structures in turn continues the possibility for ongoing impacts as a result of their continued maintenance and presence within the marine environment. These impacts may include, but are not limited to, continued overwater shading (impacting turtle foraging abilities) and the potential for vessel strikes, as well as the maintenance construction impacts described previously, as these will be impacts related to the ongoing upkeep of structures. As previously noted, the majority of the projects covered under this RGP will occur outside of the portions of San Diego Bay that are typically utilized by green turtles for foraging. Furthermore, it is unlikely that the continued existence of these structures will have prolonged effects to eelgrass, considering the avoidance, minimization, and mitigation measures proposed.

Although NMFS has evidence of sea turtle strandings within San Diego Bay resulting from vessel strikes (NMFS unpublished stranding data), there is no evidence of any of these strandings being related to the use or maintenance of structures covered under RGP 72. Additionally, per the documents provided and verified through email communications on August 28, 2019, in the

12 years of monitoring, there have been no indication of green sea turtles being present at or affected by RGP 72 sites during construction activities. Therefore, because there is some foraging habitat near the construction sites, there is a possibility for the continued use and continued maintenance of these structures to pose a small threat to green sea turtles. However, considering the conservation measures proposed, and the relative unlikelihood of vessel collisions with green turtles due to the low probability of their presence in most areas covered by the RGP, NMFS concludes that the impacts of continued maintenance and use of the structures covered by RGP 72 are discountable.

Conclusion

Based on all of the above, NMFS concurs with the USACE's determination that the proposed RGP 72 renewal, covering maintenance for a variety of structures in San Diego Bay, may affect, but is not likely to adversely affect, the federally-listed threatened green sea turtles – specifically, the East Pacific DPS of green sea turtles. Additionally, given the lack of adverse effects resulting from previously-conducted projects covered under this RGP, NMFS does not expect there to be any future adverse effects as a result of the maintenance, repair, or replacement of structures covered under this RGP.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by the USACE or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or if (3) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). Take, either through injury or death of sea turtles or any other ESA-listed species, is not expected from this project; evidence of such an outcome would require re-initiation under (1) of this paragraph. In such a case, the USACE should require that operations cease immediately and the injured or killed animal must be immediately reported to Justin Viezbicke, California Stranding Network Coordinator, at (562) 980-3230, or Justin Greenman, Assistant Stranding Network Coordinator, at (562) 980-3264. Additionally, should any of the scenarios described above occur, the USACE and/or Port of San Diego should contact James Harrison at (562) 980-4044 or at james.harrison@noaa.gov in order to reinitiate consultation. This concludes the ESA portion of this consultation.

The conclusion above includes findings that the potential impacts related to the quantity, quality, or availability of sea turtle foraging habitat as a result of the proposed project are insignificant and/or discountable. Should the project change or should information indicate that: (1) the proposed project results in unexpected additional negative impacts to eelgrass habitat; (2) any planned eelgrass mitigation efforts are not successful in terms of accordance with CEMP; or (3) other significant reductions of eelgrass in the project area occur during the proposed project time frame, the USACE and NMFS may need to reinitiate consultation under the ESA to determine if adverse effects to sea turtle foraging may be occurring, or have likely occurred. The USACE

and NMFS will need to coordinate efforts to track the progress of this proposed project in terms of actual impacts to eelgrass that occur, and the progress of any necessary mitigation efforts.

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. The USACE has these same responsibilities, and project consultation offers action agencies an opportunity to address their conservation responsibilities under section 7(a)(1). We recommend that the USACE and Port of San Diego continue to compile and maintain a record of observations of protected species sightings and behavior during all projects and share this record with NMFS. We believe examination of the monitoring records will assist both the USACE and NMFS, as well as other potential applicants, in future project designs and support future requests for consultation, as well as informing other general conservation efforts for these species in areas where green sea turtles are known to occur.

MARINE MAMMAL PROTECTION ACT

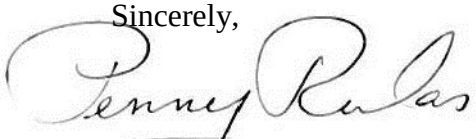
In addition to green sea turtles, various other ESA-listed marine mammals, as well as other common marine mammal species, may be found in some parts of the proposed project's action area. The additional ESA-listed species include blue whales (*Balaenoptera physalus*), fin whales (*Balaenoptera musculus*), humpback whales (*Megaptera novaeangliae*), and Western North Pacific gray whales (*Eschrichtus robustus*), which may be encountered while in transit to and from disposal sites and while offloading dredged materials. Other marine mammals that may be encountered include California sea lions (*Zalophus californianus*), Pacific harbor seals (*Phoca vitulina*), and common dolphins (*Delphinus spp*). Marine mammals are protected under the Marine Mammal Protection Act (MMPA) (16 U.S.C. § 1361 et seq.). Under the MMPA, it is illegal to "take" a marine mammal without prior authorization from NMFS. "Take" is defined as to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal. Except with respect to military readiness activities and certain scientific research conducted by, or on behalf of, the Federal Government, "harassment" is defined as any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal in the wild, or has the potential to disturb a marine mammal in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering. If the incidental take of marine mammals is expected to occur as a result of any proposed action, the applicant should apply for an Incidental Harassment Authorization (IHA) or Letter of Authorization (LOA) from NMFS well in advance of the proposed action. Please note that this letter does not provide Incidental Harassment Authorization for any marine mammals; any authorization would have to come from NMFS Office of Protected Resources, in Silver Spring, Maryland. Any questions regarding compliance with the MMPA should be directed to Laura McCue at Laura.McCue@noaa.gov.

During the monitoring associated with this proposed project, the USACE should note marine mammal presence and any behaviors indicative of potential harassment under the MMPA. These behaviors could include startled response, irregular diving, or flushing from haul-out positions in the vicinity of the project area. Implementation of the protocols for avoiding protected green sea turtles during offshore dredge material disposal described earlier should help minimize the potential for marine mammal harassment or injury resulting from this additional proposed

activity if those same avoidance measures are used for marine mammals. NMFS requests that the USACE carefully record the behavior of any marine mammals that do occur within the proposed project area. If the proposed project disturbs marine mammals, the USACE should cease activity and contact NMFS before proceeding further. In the unlikely event of an injury or mortality of a marine mammal due to this project, please immediately contact our regional stranding coordinator, Justin Viezbicke, at (562) 980-3230, or Justin Greenman, Assistant Stranding Network Coordinator, at (562) 980-3264.

Thank you for consulting with NMFS regarding this project. We appreciate your efforts to comply with Federal regulations and to conserve and protect marine mammals, sea turtles, fish, and habitat. Please direct questions regarding ESA to James Harrison, 562-980-4044, or at James.Harrison@noaa.gov.

Sincerely,



Penny Ruvelas
Long Beach Branch Chief
Protected Resources Division

cc: Administrative File: 151422WCR2019PR00198

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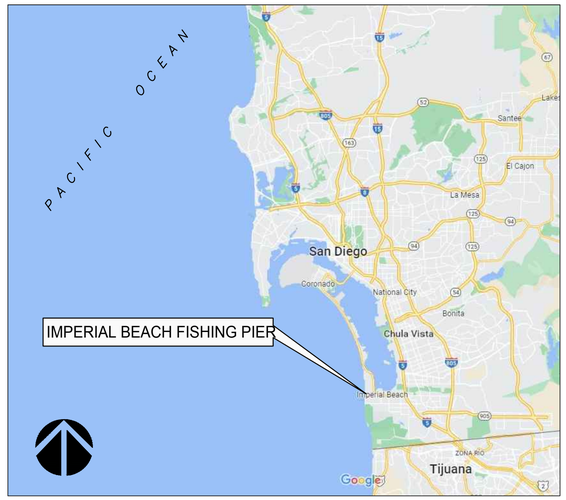
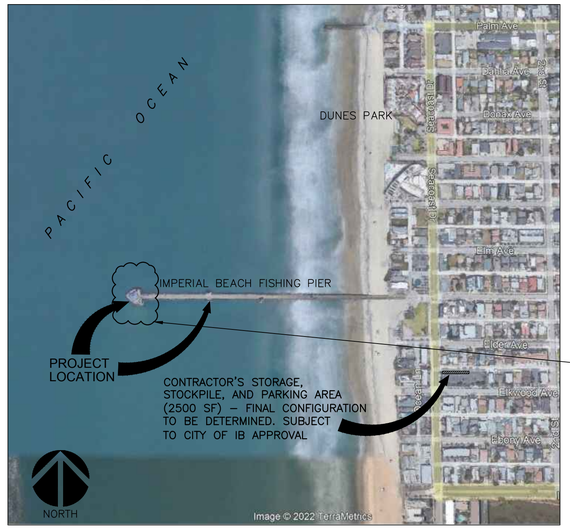
IMPERIAL BEACH PIER ENHANCEMENTS PHASE 2

IMPERIAL BEACH, CALIFORNIA



VICINITY MAP
SCALE: NTS

AERIAL VIEW
SCALE: NTS



LOCATION MAP
SCALE: NTS

ADDITIVE BID ITEM NO. 1

WORK TO BE DONE:

WORK TO BE DONE SHALL BE ACCORDING TO DRAWING NO. IB-2022-01 AND SPECIFICATION NO. 2022-07 OF THE SAN DIEGO UNIFIED PORT DISTRICT AND SHALL INCLUDE: DEMOLITION AND DISPOSAL OF VARIOUS TIMBER, STEEL, ELECTRICAL, AND MISCELLANEOUS ELEMENTS; ROUGH CARPENTRY; FINISH CARPENTRY; INSTALLATION OF STRUCTURAL STEEL-FRAMED CANOPY SUPPORTING SPECIAL DECORATIVE PANELS CANOPY; INSTALLATION OF CABLE RAILING; LIGHTING INSTALLATION; ENVIRONMENTAL PROTECTION; INSTALLATION OF CABLE FENCE (ADDITIVE BID ITEM NO. 1); AND OTHER INCIDENTAL ITEMS OF WORK AS SHOWN.

PROJECT ENGINEERS:

moffatt & nichol

Structural Engineers
1660 Hotel Circle North., Suite 500
San Diego, California 92108
Phone (619) 220-6050
Contact: Julia Shockley, E.I.T.
Matthew N. Martinez S.E.

LANDSCAPE ARCHITECT:

CIVITAS
1200 BANNOCK ST.,
DENVER, CO 80204
Phone (303) 571-0053

ELECTRICAL ENGINEER:

CELEBRATING 55 YEARS OF EXCELLENCE
BSE ENGINEERING
9903 BUSINESSPARK AVE., SUITE 104
San Diego, California 92131
Phone (858) 800-6000

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ARCHITECT/ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THIS DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECKING OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE SAN DIEGO UNIFIED PORT DISTRICT IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ARCHITECT/ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

NAME: MATTHEW N. MARTINEZ
CA REGISTRATION NO: 3045
LICENSE EXP. DATE: JUNE 30, 2024
COMPANY NAME: MOFFATT & NICHOL

REGISTERED PROFESSIONAL ENGINEER MATTHEW N. MARTINEZ No. S3045 EXP. 6/30/2024 STRUCTURAL STATE OF CALIFORNIA

moffatt & nichol

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07	WBS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	MNM/JKS
DRAWN	D. BURROW
CHECKED	MNM/JKS

APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER
APPROVED Chris Brooks 8/10/22
DISTRICT MANAGER-DESIGN

SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

TITLE SHEET

DATE	JULY 26, 2022
A/E NO.	T-001
SHEET	1 OF 30
DRAWING NO.	IB-2022-01
REV.	-

Aug 09, 2022 - 4:01pm O:\SD\212326-03 ib pier enhancements phase 2\120 CADD_Active_Design_01 GENERAL_Working\IB-2022-01-GI-SP-01.dwg

ABBREVIATIONS

&	AND
∠	ANGLE
@	AT
AB	ANCHOR BOLT
ADD'L	ADDITIONAL
ADA	AMERICAN WITH DISABILITY ACT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
APPX.	APPROXIMATE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVG	AVERAGE
AWPA	AMERICAN WOOD PRESERVERS ASSOCIATION
AW	AMERICAN WELDING SOCIETY
BLDG	BUILDING
BLKG	BLOCKING
BO	BOTTOM OF
BOT	BOTTOM
C	CHANNEL
℄	CENTER LINE
CI	CAST IRON
CLR	CLEAR, CLEARANCE
CJ	CONTROL JOINT
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUED, CONTINUOUS
CTR	CENTER
CU FT	CUBIC FEET
CY	CUBIC YARDS
d_b	NOMINAL BAR DIAMETER
DIA, D, Ø	DIAMETER
DBL	DOUBLE
DEMO	DEMOLISH
DIP	DUCTILE IRON PIPE
DIST	DISTANCE
DO	DITTO
DWG(S)	DRAWING(S)
E	ELECTRIC/ELECTRICAL
EA	EACH
ELEV, EL	ELEVATION
ELEC	ELECTRICAL
EMBED	EMBEDMENT
ETC	ETCETERA
EXP	EXPANSION
EXIST	EXISTING
F	FAHRENHEIT
FO	FACE OF
FS	FINISH SURFACE
FT	FEET
FTG	FOOTING
FW	FRESH WATER
GALV	GALVANIZED
HORIZ	HORIZONTAL
H.P.	HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION
IB	IMPERIAL BEACH
ID	INSIDE DIAMETER
IN	INCHES
INFO	INFORMATION
JT	JOINT
LBP	LEAD BASED PAINT
LB(S)	POUND(S)
LG	LONG
LIN	LINEAR
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONGIT	LONGITUDINAL
MAX	MAXIMUM
M.B.	MACHINE BOLT
MC	MISCELLANEOUS CHANNEL
MECH	MECHANICAL
MFR, MFR'S	MANUFACTURER(S)
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLLW	MEAN LOWER LOW WATER
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
No, #, NO'S	NUMBER(S)
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
ORIG	ORIGINAL
PCF	POUNDS PER CUBIC FEET
℄	PLATE
±	APPROXIMATE DIMENSION CONTRACTOR TO VERIFY
PROP	PROPERTY
PSI	POUNDS PER SQUARE INCH
REFL	REFLECTED
REF	REFERENCE
REINF	REINFORCED, REINFORCING
REQ'D	REQUIRED
REQT	REQUIREMENT(S)
SCHED	SCHEDULE
SDG&E	SAN DIEGO GAS & ELECTRIC
SDUPD	SAN DIEGO UNIFIED PORT DISTRICT
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SPA	SPACE, SPACED, SPACING
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SSPC	STRUCTURAL STEEL PAINTING COUNCIL
STA	STATION
STD	STANDARD
STIFF	STIFFENER
SYMM	SYMMETRICAL
T, TEL	TELEPHONE
TB	TIMBER BOLT WITH DOME HEAD
TO	TOP OF
TOS	TOP OF STEEL
TS	TUBE STEEL
TW	TOP OF WALL OR CONCRETE CAP
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UHMW, UHMWPE	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE
VERT	VERTICAL
W/	WITH
WI	WROUGHT IRON
WP	WORK POINT
WPJ	WEAKENED PLANE JOINT
WW	WASTE WATER

PROJECT SHEET INDEX

NOTES

A. GENERAL NOTES

1. DIMENSIONS AND ELEVATIONS INDICATED FOR EXISTING CONDITIONS ARE AS MEASURED IN THE FIELD AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, STATIONING AND ELEVATIONS AND NOTIFY THE ENGINEER OF ANY SIGNIFICANT DISCREPANCIES FOUND.
2. PLANS AND DETAILS SHOWN ON THESE DRAWINGS OF THE EXISTING CONDITIONS ARE TAKEN FROM THE ORIGINAL CONSTRUCTION DOCUMENTS AND AS FOUND IN THE FIELD AS OF MAY 27, 2022. THE CONTRACTOR SHALL VERIFY EXISTING CONSTRUCTION PRIOR TO BEGINNING ALL ASSOCIATED WORK.
3. IN CASE OF CONFLICT, NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
4. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
5. ALL ELEVATIONS SHOWN ON DRAWINGS ARE BASED ON MEAN LOWER LOW WATER DATUM (MLLW). STATION ID 9410230, LA JOLLA CA, EPOCH 1983-2001.
6. THE CONTRACTOR SHALL NOT INTERRUPT UTILITY SERVICES OR BLOCK ACCESS TO RESTROOMS OR RESTAURANT WITHOUT AUTHORIZATION FROM THE DISTRICT WITH 72 HOURS NOTICE MINIMUM.
7. INDICATED SIZE AND LOCATION FOR UTILITIES, EQUIPMENT, AND OTHER IMPROVEMENTS IS APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZES OF UTILITIES.

B. REFERENCE TO EXISTING DRAWINGS

1. EXISTING CONSTRUCTION DRAWING INFORMATION IS AS FOLLOWS:

DRAWING(S) (1)	AGENCY/CONSULTANT DRAWING NUMBER	DATE
MUNICIPAL PIER RECONSTRUCTION	SDUPD DWG NO. 2413	SEPT. 1986
IMPERIAL BEACH FISHING PIER REHABILITATION	SDUPD DWG NO. 2420	DEC. 2004
IMPERIAL BEACH FISHING PIER REPAIR	SDUPD DWG NO. 2427	FEB. 2009
IMPERIAL BEACH PIER DECK REFURBISHMENT	SDUPD DWG NO. 2432	JUN. 2012
LIGHTING REPLACEMENT AT IMPERIAL BEACH PIER	SDUPD DWG NO. IB-2017-01	DEC. 2017

(1) COPIES OF THESE DRAWINGS MAY BE VIEWED AT THE DISTRICT CLERK'S OFFICE.

C. SCHEDULING OF WORK

1. THE SCHEDULING AND PHASING OF THE WORK SHALL BE COMPLETED AS REQUIRED BY THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE TRAFFIC, LAYDOWN AREAS, UTILITY SHUTOFFS, ACCESS TO WORK SITES, MATERIAL AND EQUIPMENT STORAGE, ALTERNATE TRAFFIC ROUTES, PARKING, AND ANY OTHER ITEMS AS REQUIRED BY THE DISTRICT.
2. ALL UTILITIES SHALL BE PROTECTED IN PLACE, UNLESS OTHERWISE SHOWN OR SPECIFIED, DURING ALL PHASES OF CONSTRUCTION. IN THE EVENT OF A UTILITY RELATED EMERGENCY IMMEDIATELY CONTACT THE DISTRICT.

   PORT OF SAN DIEGO
   3165 PACIFIC HIGHWAY
   SAN DIEGO, CA 92101
   (619) 686-6200

3. PIER ACCESS FOR PEDESTRIANS AND VEHICLES SHALL REMAIN OPEN AND AVAILABLE BETWEEN 6:00 AM - 10:00 PM. CONTRACTORS SHALL PROVIDE A MINIMUM 10-FOOT WIDE LANE ON THE PIER WHILE WORKING BETWEEN THE HOURS OF 6:00 AM - 10:00 PM.
4. COMPLETE CLOSURE (FULL PIER WIDTH) OF ALL OR PORTION OF THE PIER SHALL BE PERMISSABLE ONLY BETWEEN THE HOURS OF 10:00 PM - 6:00 AM. COMPLETE PIER CLOSURE SHALL BE CONTINGENT ON PRIOR APPROVAL AND POSTING OF "PIER CLOSURE SIGNS" A MINIMUM OF 72 HOURS PRIOR TO THE PROPOSED PIER CLOSURE.
5. THE CONTRACTOR'S STORAGE STOCKPILE AND PARKING AREA IS SHOWN ON THE LOCATION MAP ON SHEET T-001, SUBJECT TO CITY OF IB APPROVAL. THE ACTUAL BOUNDARIES SHALL BE COORDINATED WITH AND APPROVED BY THE DISTRICT PRIOR TO MOBILIZATION.
6. NO STOCKPILING OF CONSTRUCTION-RELATED MATERIALS OR DEBRIS STORAGE IS PERMITTED ON THE PIER OR THE PUBLIC PARK AT THE PIER ENTRANCE.

D. DEMOLITION AND WORKING CONDITIONS

1. PRIOR TO COMMENCING DEMOLITION, THE CONTRACTOR SHALL VERIFY THE LOCATION AND SIZE OF ANY EXISTING UTILITIES SERVING OR SUPPORTED BY THE STRUCTURE. VERIFICATION SHALL BE MADE FROM AVAILABLE SOURCES SUCH AS, BUT NOT LIMITED TO, UTILITY COMPANIES, AS-BUILT DRAWINGS, SITE INVESTIGATIONS, ETC.
2. ALL ITEMS INDICATED "REMOVE AND SALVAGE" FOR RE-USE SHALL BE TAGGED, STORED AND PROTECTED. THESE ITEMS SHALL BE REINSTALLED BY THE CONTRACTOR WHERE INDICATED AFTER COMPLETION OF ASSOCIATED WORK.
3. UNLESS NOTED OTHERWISE, MATERIAL TO BE "REMOVED" SHALL BE REMOVED AND DISPOSED OF AT A LICENSED DISPOSAL SITE OFF DISTRICT TIDELANDS AT CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL LIMIT LOADING ON THE PIER AS INDICATED ON SHEET S-001 AND THE SPECIFICATIONS. CONCENTRATED LOADS FROM TRUCKS, CRANES AND OTHER EQUIPMENT SHALL BE PLACED OVER PILE CAPS. OUTRIGGERS FOR MOBILE TRUCK CRANES SHALL USE SPREADER BEAMS OR OTHER MEANS TO DISTRIBUTE LOAD OVER PILE CAPS.
5. THE CONTRACTOR SHALL PROTECT THE EXISTING STRUCTURE AND IMPROVEMENTS DURING THE WORK. PROVIDE BRACING, SHORING AND SPREADER BEAMS AS NECESSARY FOR CONSTRUCTION LOADS.
6. TEMPORARY SHORING AND BRACING. PROVIDE TEMPORARY SHORES, GUYS, BRACES, AND OTHER SUPPORTS DURING ERECTION TO KEEP STRUCTURAL STEEL SECURE, PLUMB, AND IN ALIGNMENT AGAINST TEMPORARY CONSTRUCTION LOADS, LOADS INDUCED BY WIND, EARTHQUAKE, WAVES AND DESIGN LOADS. DESIGN AND ADEQUACY OF SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. REMOVE TEMPORARY SUPPORTS WHEN PERMANENT STRUCTURAL STEEL, CONNECTIONS AND BRACING ARE IN-PLACE, UNLESS OTHERWISE INDICATED.
7. CERTAIN ASPECTS OF THE WORK REQUIRES UNDERDECK PIER ACCESS OVER WATER. THE WORK WILL REQUIRE UTILIZATION OF A BRIDGE SNOOPER OR EQUIV. DEVICE, AND/OR ERECTION OF FIXED SCAFFOLDING
8. REMOVAL OF DECKING FOR ACCESS TO THE UNDERSIDE OF THE PIER DECK SHALL BE COORDINATED TO COMPLY WITH PUBLIC ACCESS REQUIREMENTS INDICATED IN NOTE C.3. GAPS IN THE PIER DECK SHALL NOT BE LEFT OPEN FOR MORE THAN AN 8 HOUR PERIOD OR UNATTENDED WITH ALL NECESSARY MEASURES TO PROTECT WORKERS AND MAINTAIN PUBLIC SAFETY.
9. REMOVAL OF RAILINGS/FENCING SHALL BE PERFORMED IN SUCH A MANNER SO AS TO MAINTAIN PUBLIC SAFETY, PROVIDE TEMPORARY DEVICES TO SERVE AS A RAILING/FENCING, WORK SHALL BE COMPLETED ON RAILINGS/FENCING SUCH THAT TEMPORARY SAFETY RAILING/FENCING IS NOT REQ'D FOR MORE THAN A 72 HOUR PERIOD.
10. REMOVAL OF DECKING AND DECK SPIKES SHALL BE PERFORMED IN SUCH A MANNER SO AS TO PREVENT SPLITTING OF SUPPORTING TIMBER STRINGERS OR ADJACENT PLANKS. TIMBER MEMBERS DAMAGED AS A RESULT OF THE DEMOLITION PROCESS SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
11. ON SITE WELDING REQUIRES THAT A REPRESENTATIVE OF THE FIRE DEPARTMENT BE PRESENT. THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT PRIOR TO WELDING ACTIVITIES.

E. ENVIRONMENTAL NOTES

1. THE CONTRACTOR SHALL PROVIDE FIXED (NOT FLOATING) SCAFFOLDING TO SUPPORT WORKERS, AND THE CONTRACTOR SHALL PROVIDE A SYSTEM DESIGNED TO CATCH AND RETRIEVE ALL DEMOLITION AND CONSTRUCTION MATERIAL GENERATED BY THIS PROJECT. DEMOLITION AND CONSTRUCTION MATERIAL SHALL NOT BE ALLOWED TO FALL INTO THE OCEAN.
2. ALL TIMBER MEMBERS ARE TREATED WITH PRESERVATIVES. THE CONTRACTOR SHALL DISPOSE OF TREATED TIMBER ELEMENTS IN ACCORDANCE WITH LOCAL AGENCIES.
3. STEEL COATING TEST RESULTS FROM 2004, PREPARED BY AMERISCI, INDICATE THE PAINT CONTAINS SMALL AMOUNTS OF LEAD; HOWEVER THE CONCENTRATION IS NOT SUFFICIENT TO BE CONSIDERED A LEAD BASED PAINT.

REGISTERED PROFESSIONAL ENGINEER — MARK N. MILLER — No. S3045 — EXP. 6/30/2024 — STRUCTURAL — STATE OF CALIFORNIA

moffatt & nichol

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

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SPEC NO. 2022-07	WBS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO — Waterfront of Opportunity

DESIGNED	MNM/JKS
DRAWN	D. BURROW
CHECKED	MNM/JKS

APPROVAL RECOMMENDED — DISTRICT PROJECT MANAGER
APPROVED Chris Brooke 8/10/22 — DISTRICT MANAGER–DESIGN

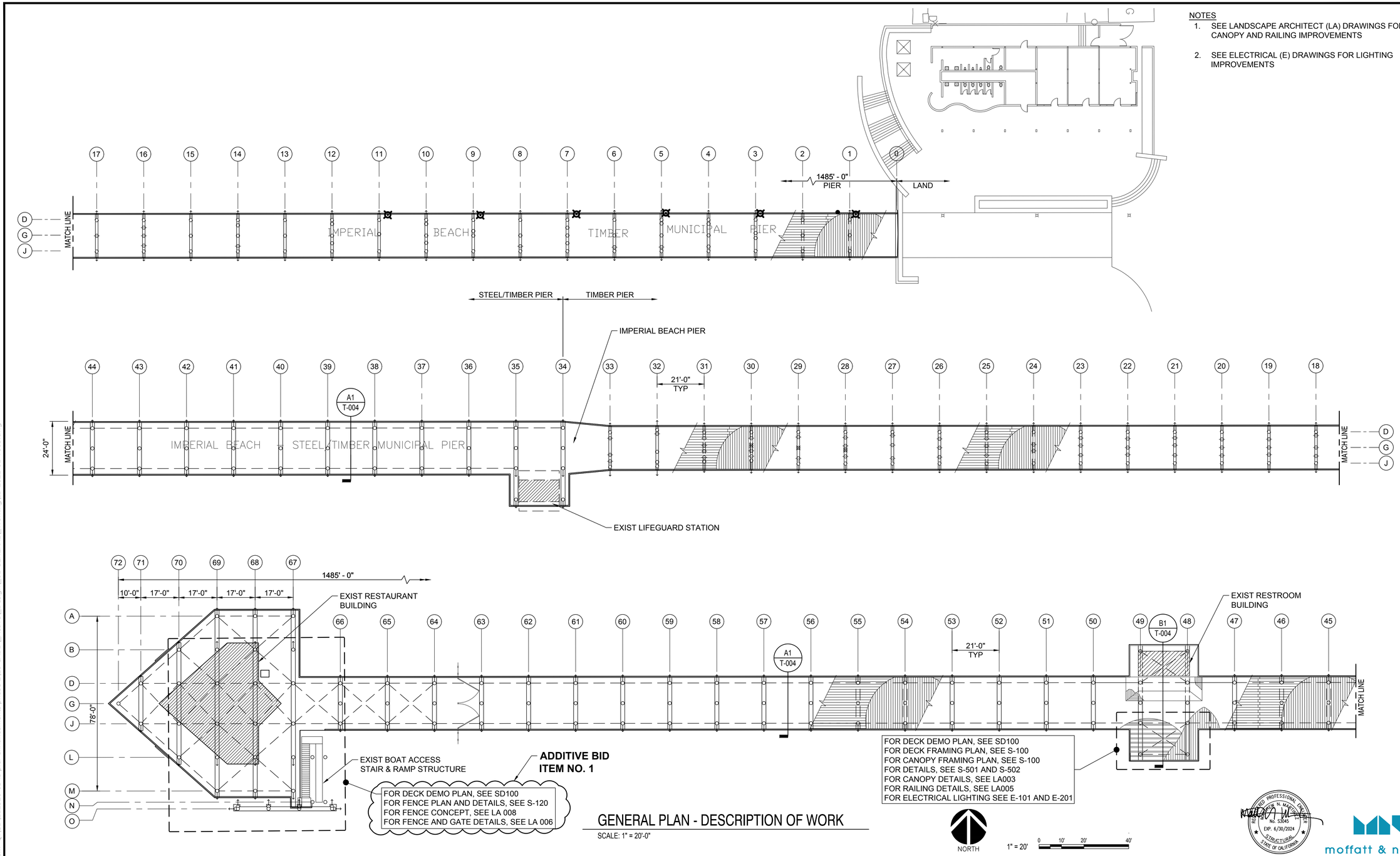
SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2

GENERAL NOTES, DRAWING INDEX, AND ABBREVIATIONS

DATE	JULY 26, 2022
A/E NO.	T-002
SHEET	2 OF 30
DRAWING NO.	IB-2022-01
REV.	-

NOTES
1. SEE LANDSCAPE ARCHITECT (LA) DRAWINGS FOR CANOPY AND RAILING IMPROVEMENTS
2. SEE ELECTRICAL (E) DRAWINGS FOR LIGHTING IMPROVEMENTS



GENERAL PLAN - DESCRIPTION OF WORK

SCALE: 1" = 20'-0"

REGISTERED PROFESSIONAL ENGINEER — MARK N. MARSHALL — No. 53045 — EXP. 6/30/2024 — STRUCTURAL — STATE OF CALIFORNIA

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REVIEWED BY:
ENGINEER OF RECORD
DATE:

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CONSTRUCTION COMPLETED	
COST	INSPECTOR

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PORT of SAN DIEGO
Waterfront of Opportunity

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DRAWN	D. BURROW
CHECKED	MNM/JKS

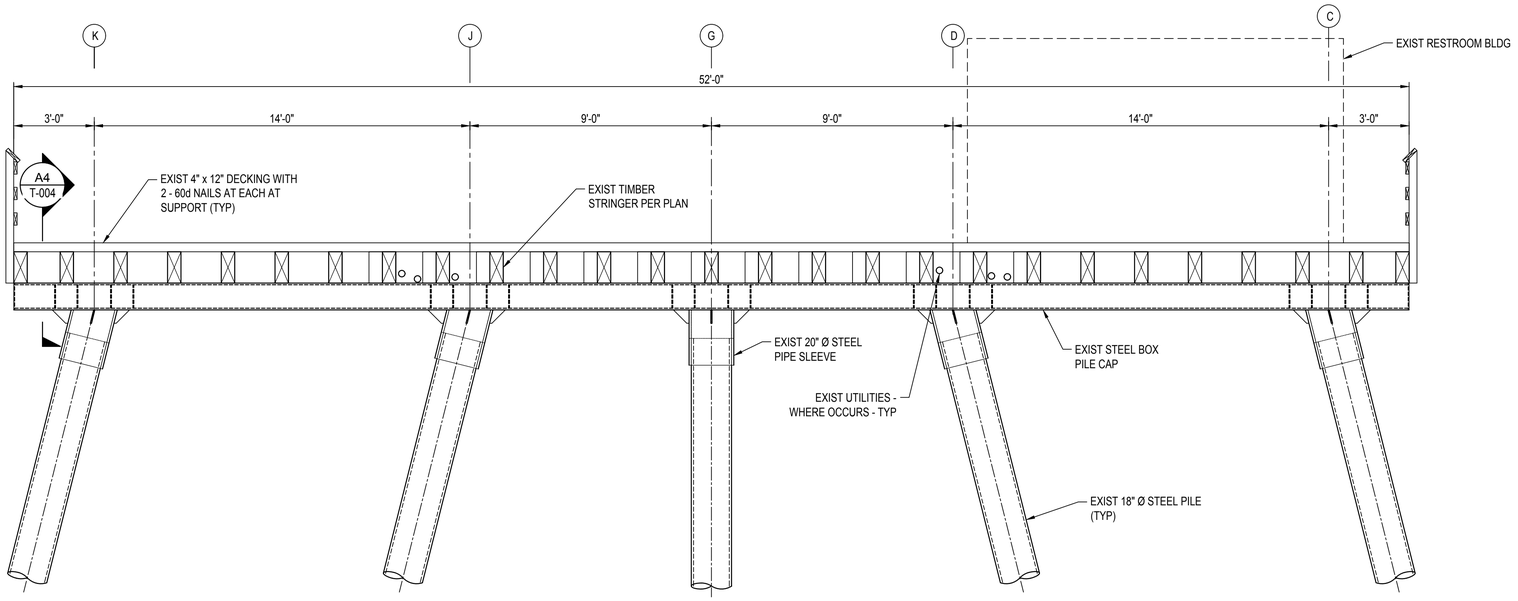
APPROVAL RECOMMENDED — DISTRICT PROJECT MANAGER
APPROVED — Chris Brooke 8/10/22 — DISTRICT MANAGER–DESIGN

SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

GENERAL PLAN - DESCRIPTION OF WORK

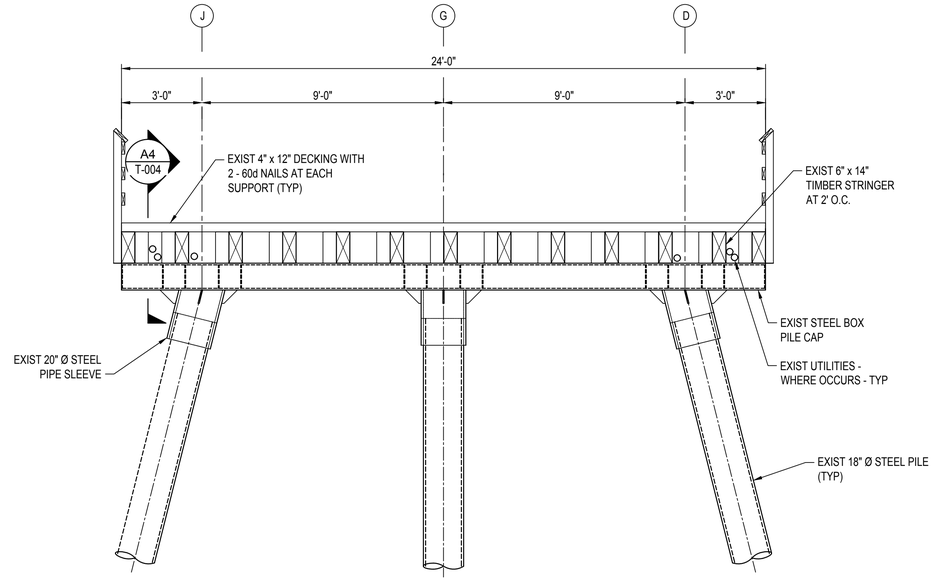
DATE	JULY 26, 2022
A/E NO.	T-003
SHEET	3 OF 30
DRAWING NO.	IB-2022-01
REV.	-



B1 PIER SECTION AT RESTROOM - DECK EXTENSION

SCALE: 3/8" = 1'-0"

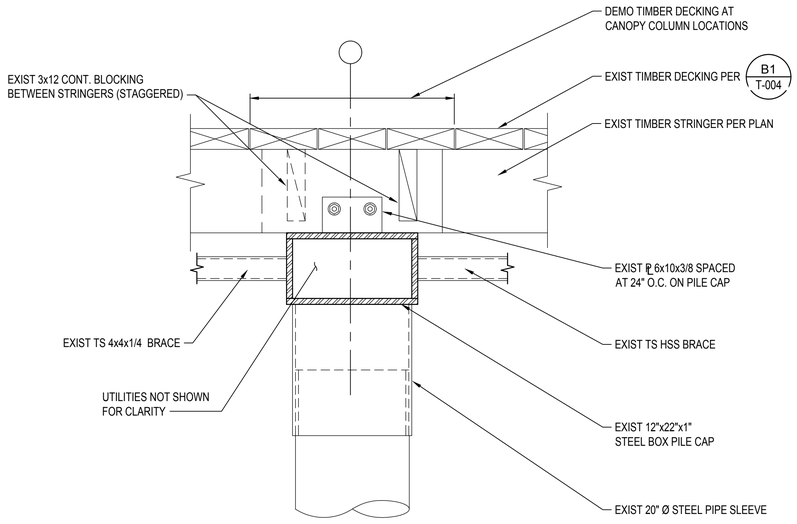
3/8" = 1' 0 2' 4' 6'



A1 TYP PIER SECTION

SCALE: 3/8" = 1'-0"

3/8" = 1' 0 2' 4' 6'



A4 TYP PILE CAP DETAIL

SCALE: 1" = 1'-0"

1" = 1' 0 1' 2'

REGISTERED PROFESSIONAL ENGINEER
MARTIN N. MARTINEZ
No. S3045
EXP. 6/30/2024
STRUCTURAL
STATE OF CALIFORNIA

moffatt & nichol

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ENGINEER OF RECORD

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CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	MNM/JKS
DRAWN	D. BURROW
CHECKED	MNM/JKS

APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER

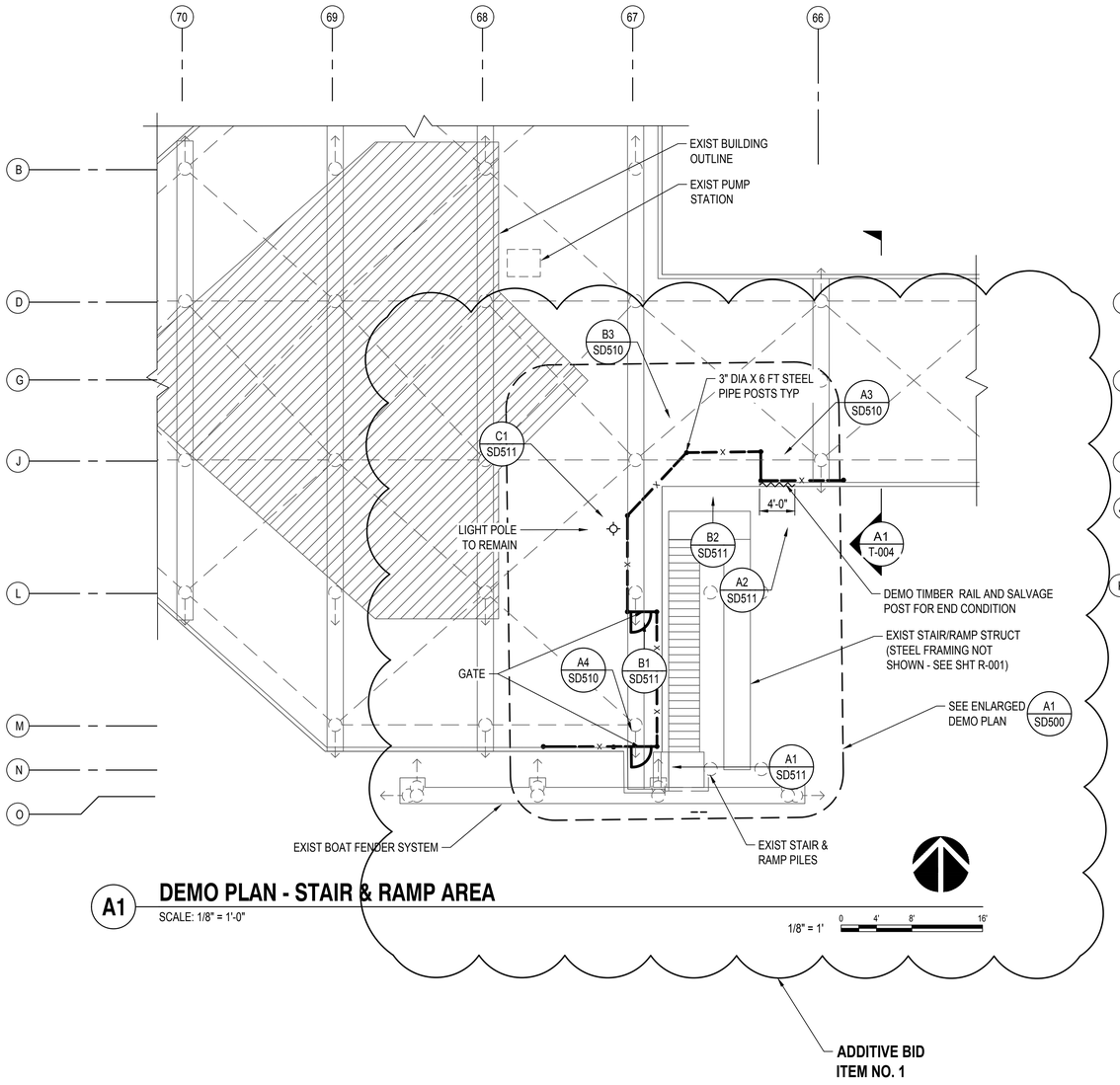
APPROVED
Chris Brooke 8/10/22
DISTRICT MANAGER-DESIGN

SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

EXISTING PIER SECTIONS

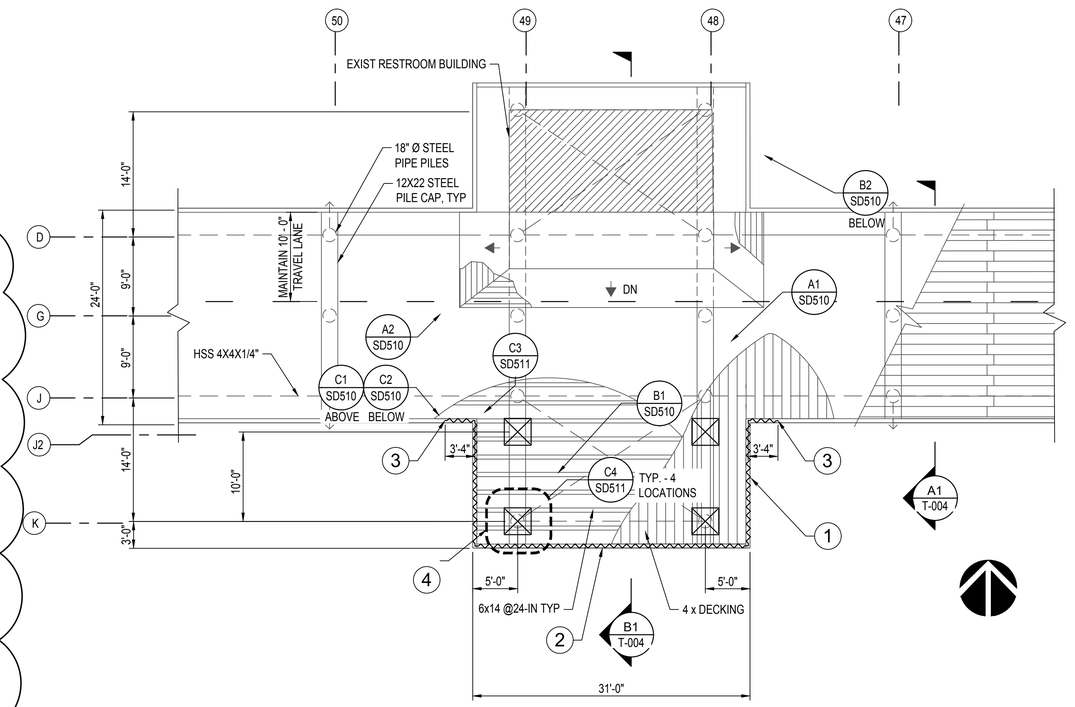
DATE	JULY 26, 2022
A/E NO.	T-004
SHEET	4 OF 30
DRAWING NO.	IB-2022-01
REV.	-



A1 DEMO PLAN - STAIR & RAMP AREA

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

1/8" = 1' 0 4' 8' 16'



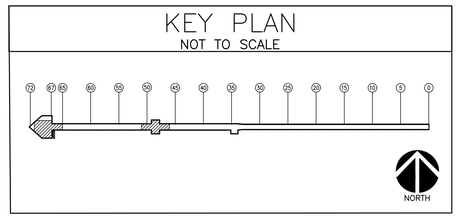
A2 DEMO PLAN - SHADE CANOPY AT PIER EXTENSION

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

1/8" = 1' 0 4' 8' 16'

DEMO NOTES:

1. REMOVE EXISTING TIMBER RAILING, SEE B2 / SD500
2. SALVAGE FISHING POLE HOLDERS, WHERE OCCURS
3. SALVAGE TWO (2) POSTS FOR FINAL END CONDITION 2 / LA005
4. REMOVE 2FT SQUARE DECKING AT COLUMN LOCATIONS



REGISTERED PROFESSIONAL ENGINEER — No. 5345 — EXP. 6/30/2024 — STRUCTURAL — STATE OF CALIFORNIA

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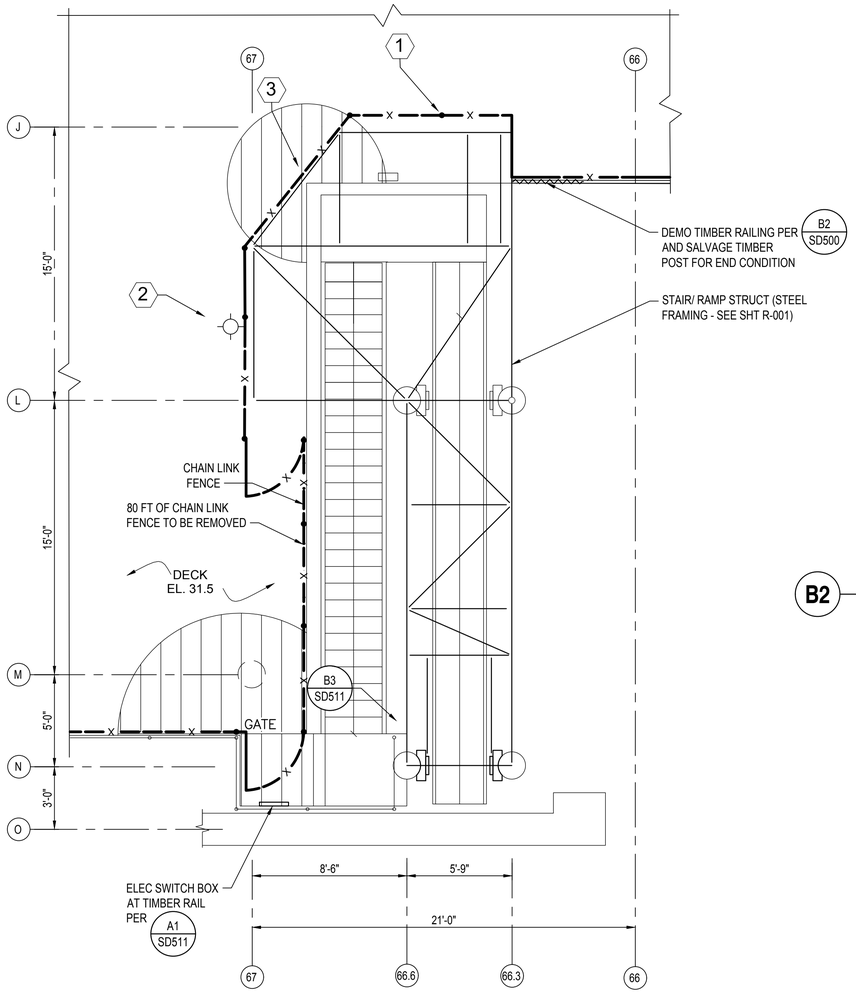
SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

DEMOLITION PLANS

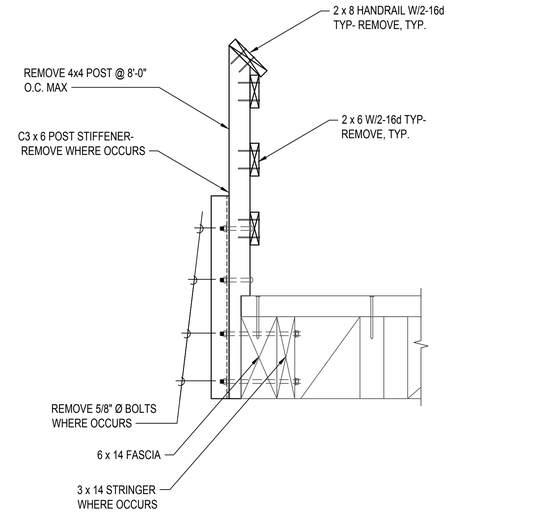
DATE JULY 26, 2022
A/E NO. SD100
SHEET 5 OF 30
DRAWING NO. IB-2022-01
REV. -



A1 **STAIR-RAMP AREA DEMO PLAN**

SCALE: 1/4" = 1'-0"

1/4" = 1' 0 2' 4' 8'



B2 **RAILING DEMOLITION DETAIL**

SCALE: 1" = 1'-0"

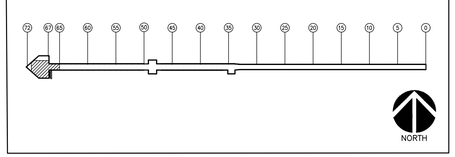
1" = 1' 0 1' 2'

NOTES:

1. REMOVE SECURITY SCREEN CHAIN LINK FENCE AND GATES PER A3 SD510 A4 SD510
2. LIGHT POLE TO REMAIN PER C1 SD511
3. REMOVE POLE FOR STRING LIGHTS. REMOVE AND SALVAGE STRING LIGHTS PER B3 SD510

ADDITIVE BID ITEM NO. 1 ENTIRE SHEET

KEY PLAN
NOT TO SCALE



REGISTERED PROFESSIONAL ENGINEER JOHN N. MARTINEZ No. 53045 EXP. 6/30/2024 STRUCTURAL STATE OF CALIFORNIA

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DESIGNED	MNM/JKS
DRAWN	D. BURROW
CHECKED	MNM/JKS
APPROVAL RECOMMENDED	DISTRICT PROJECT MANAGER
APPROVED	Chris Brooks 8/10/22 DISTRICT MANAGER-DESIGN

SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

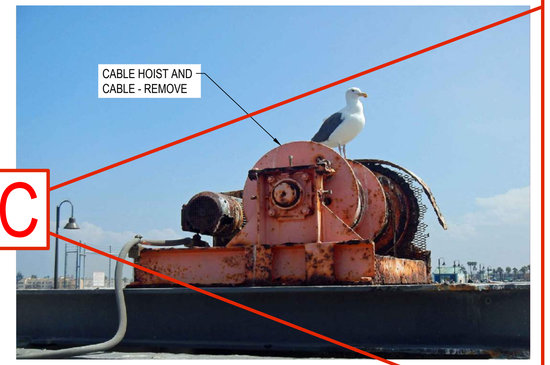
DEMOLITION DETAILS

DATE	JULY 26, 2022
A/E NO.	SD500
SHEET	6 OF 30
DRAWING NO.	IB-2022-01
REV.	-

C1 RAILING AT DECK EDGE
SCALE: NTS

C2 UNDERSIDE OF DECK EXTENSION
SCALE: NTS

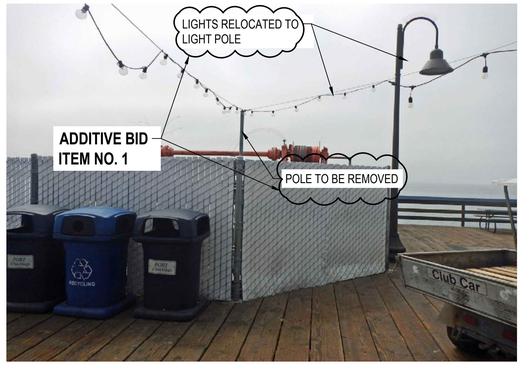
C3 STEEL FRAME / CABLE HOIST AT STAIR-RAMP STRUCTURE
SCALE: NTS



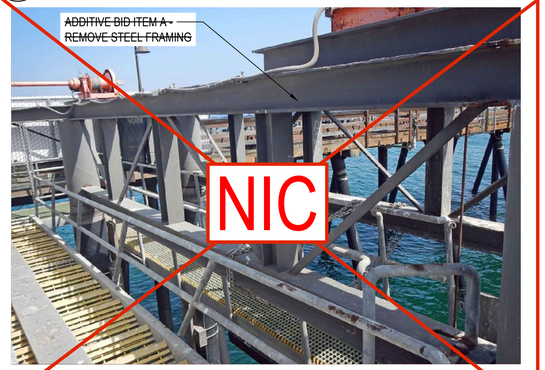
C4 CABLE HOIST AT STEEL FRAME
SCALE: NTS

B1 TIMBER RAIL AND DECK AT EXTENSION
SCALE: NTS

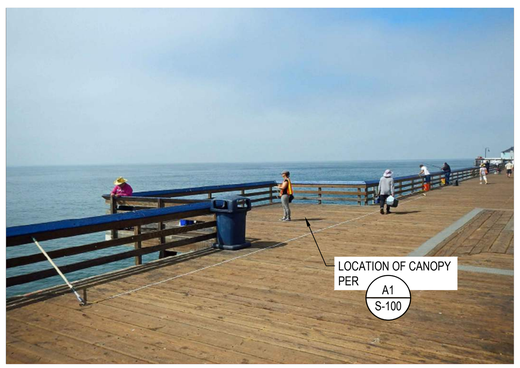
B2 UNDERSIDE OF DECK EXTENSION AT RESTROOM
SCALE: NTS



B3 LIGHTING AND FENCE AT STAIR RAMP STRUCTURE
SCALE: NTS

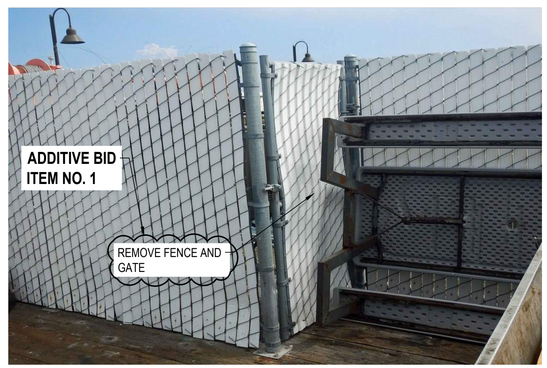


B4 STAIR AND STEEL FRAME
SCALE: NTS



A1 DECK EXTENSION RAILING
SCALE: NTS

A2 ADA RAMP AT RESTROOMS
SCALE: NTS



A3 CHAIN LINK FENCE - SECURITY SCREEN - GATE
SCALE: NTS

A4 CHAIN LINK FENCE - SECURITY SCREEN - GATE
SCALE: NTS

REGISTERED PROFESSIONAL ENGINEER — No. 5345 — EXP. 6/30/2024 — STRUCTURAL — STATE OF CALIFORNIA

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APPROVED Chris Brooke 8/10/22 — DISTRICT MANAGER-DESIGN

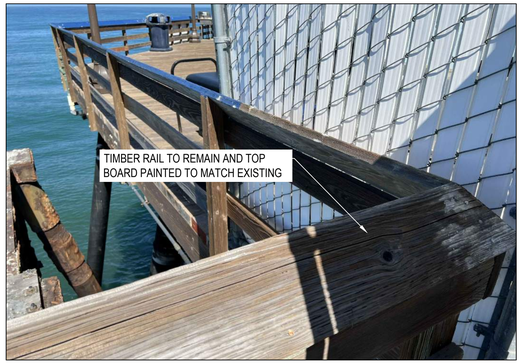
SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

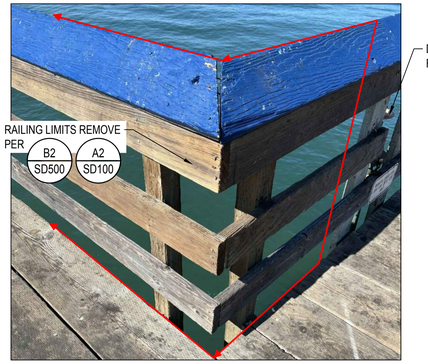
DEMOLITION PHOTOGRAPHS

DATE JULY 26, 2022
A/E NO. SD510
SHEET 7 OF 30
DRAWING NO. IB-2022-01
REV. -

C1 LIGHT POLE AT CHAIN LINK FENCE
SCALE: NTS



C2 RAILING BEHIND CHAIN LINK FENCE
SCALE: NTS

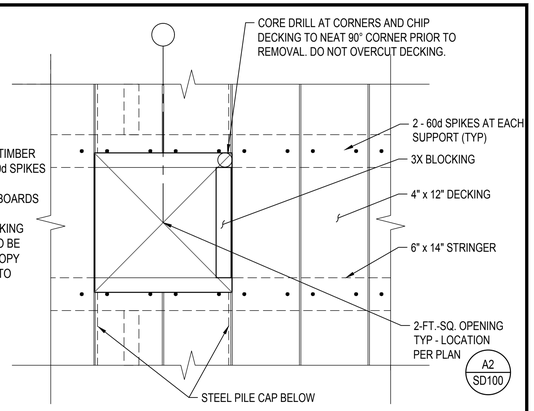


C3 RAILING CORNER AT EXTENSION
SCALE: NTS

NOTES:

1. CAREFULLY SAWCUT TIMBER DECKING BETWEEN 60d SPIKES
2. INSTALL 3x14 TIMBER BOARDS
3. SALVAGE TIMBER DECKING FOR REPLACEMENT TO BE PLACED AROUND CANOPY COLUMN AND NAILED TO 3x14 BOARDS

FOR ITEMS SHOWN BUT NOT NOTED SEE A4 T-004

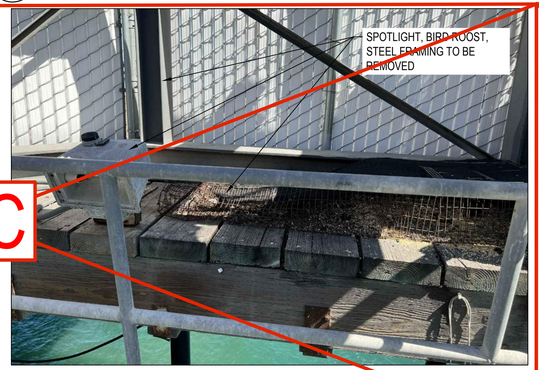


C4 DECK DEMOLITION AT CANOPY PIPE COLUMN
SCALE: 1" = 1' 0"

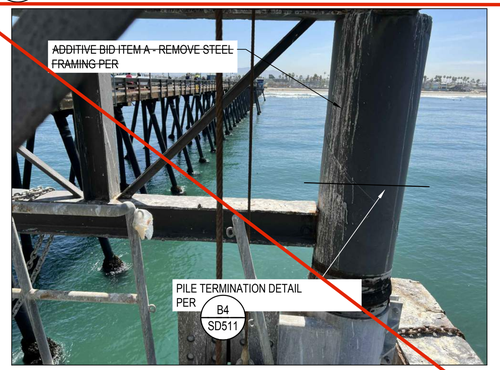
1" = 1' 0 1' 2'

B1 ELECTRICAL PANEL AT STAIR RAMP STRUCTURE
SCALE: NTS

NIC



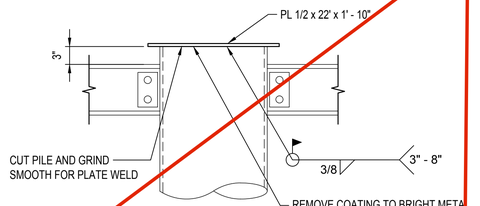
B2 SPOTLIGHT AND BIRD ROOST
SCALE: NTS



B3 PILE AT STAIR RAMP STRUCTURE
SCALE: NTS

NIC

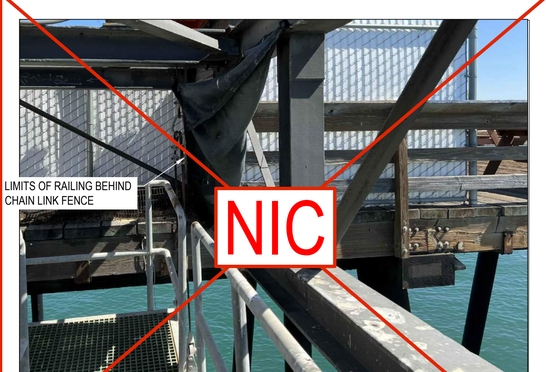
~~ADDITIVE BID SCHEDULE A~~



B4 FRAME DEMO - PILE TERMINATION DETAIL
SCALE: 1" = 1' 0"

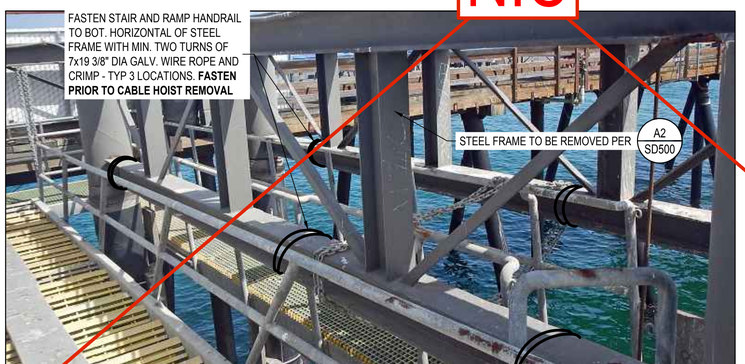
1" = 1' 0 1' 2'

A1 LANDING AND ELECTRICAL PANEL AT STAIR/RAMP STRUCTURE
SCALE: NTS



NIC

A2 RAILING BEHIND CHAIN LINK FENCE
SCALE: NTS



A3 STAIR RAMP FASTENING DETAIL
SCALE: NTS

NIC

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COST	INSPECTOR

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	MNM/JKS
DRAWN	D. BURROW
CHECKED	MNM/JKS

APPROVAL RECOMMENDED — DISTRICT PROJECT MANAGER
APPROVED Chris Brooks 8/10/22 — DISTRICT MANAGER-DESIGN

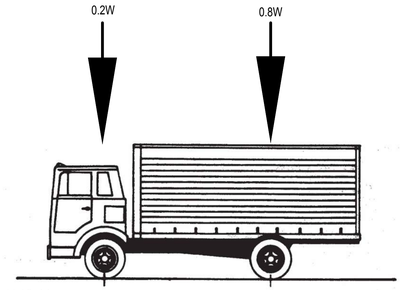
SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

DEMOLITION PHOTOGRAPHS AND DETAILS

DATE	JULY 26, 2022
A/E NO.	SD511
SHEET	8 OF 30
DRAWING NO.	IB-2022-01
REV.	-

Aug 09, 2022 - 4:08pm Q:\SD\212326-03 Ib pier enhancements phase 2\20 CADD\ Active\ Design\ 02 STRUCTURAL DEMOLITION\IB-2022-01-SD511.dwg



H 10-44

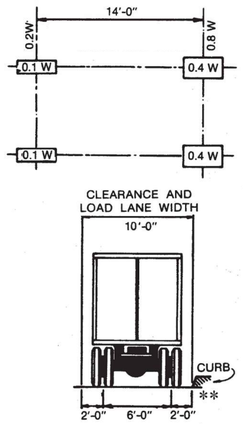


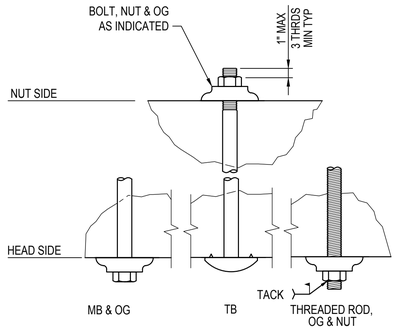
FIGURE 3.7.6A Standard H Trucks

STANDARD H10-44 TRUCK

W = GROSS WEIGHT OF A TWO AXLE TRUCK PER NOTE E-1.

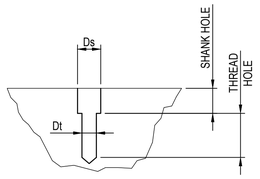
A1 HS10-44 TRUCK LOADING DIAGRAM

SCALE: NTS



A2 TIMBER BOLTING DETAIL

SCALE: NTS



DIAMETER OF LEAD HOLE (IN.)		
NOM DIA D	SHANK Ds	THREADED PORTION Dt
3/8	*N/A	*N/A
1/2	1/2	15/64
5/8	5/8	5/16
3/4	3/4	13/32
7/8	7/8	33/64
1	1	5/8
1 1/8	1 1/8	3/4
1 1/4	1 1/4	7/8

NOTE:
VALUES PER AITC TAB 6.23 GROUPS III & IV SPECIES
* PROVIDE LEAD HOLE IF SPLITTING OCCURS

A3 LAG SCREW (LS) LEAD HOLE DETAIL

SCALE: NTS

A. GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS, THE CONTRACT SPECIFICATIONS, AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES INCLUDING SCAFFOLDING AND TEMPORARY HANDRAILS AND BE RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY HEALTH STANDARDS, LAWS AND REGULATIONS.
3. BEFORE FABRICATION AND INSTALLATION, THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION, SIZE, AND LENGTH OF ALL STRUCTURAL FRAMING, UTILITIES AND HARDWARE.
4. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION AND EXTENT OF ALL REPAIR WORK PRIOR TO ORDERING MATERIALS AND FABRICATION OF RELATED ELEMENTS OF CONSTRUCTION.

B. STRUCTURAL STEEL & MISC METAL

1. SQUARE, RECTANGULAR AND ROUND HOLLOW STRUCTURAL SHAPES SHALL CONFORM TO ASTM A500 Gr. B.
2. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 FOR MISC ANGLES, CHANNELS AND PLATES.
3. THREADED RODS SHALL CONFORM TO ASTM A36.
4. BOLTS SHALL CONFORM TO ASTM A307.
5. NUTS SHALL BE ASTM A563 HEX OR HEAVY HEX.
6. WASHERS SHALL BE ASTM F436 UNDER ALL BOLT HEADS AND NUTS UNO.
7. INDUSTRIAL HOT-DIP GALVANIZE AFTER FABRICATION: ALL FRAMES, PLATES, BOLTS, NUTS, WASHERS, CHAINS, NAILS, SCREWS AND RELATED ITEMS, UNO.
8. ALL WELDING SHALL BE DONE BY SHIELDING ARC PROCESS USING APPROVED ELECTRODES PER AWS D.1 E70XX (LOW HYDROGEN ELECTRODES).
9. MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
10. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS - SEE SPECIFICATIONS). PROVISIONS OF AISC AESS APPLY AS FOLLOWS:
    A. CANOPY COLUMNS SHALL CONFORM TO THE REQUIREMENTS OF AESS 3: "FEATURE ELEMENTS IN CLOSE VIEW."
    B. CANOPY FRAMING SHALL CONFORM TO THE REQUIREMENTS OF AESS 2: "FEATURE ELEMENTS NOT IN CLOSE VIEW."
    C. ERECTION TOLERANCES ARE 50% MORE STRINGENT FOR AESS THAN CONVENTIONAL STEEL CONSTRUCTION.

C. STEEL COATINGS

1. PREPARATION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH SSPC: SP1, SP3, & SP10.
2. COATING OF STRUCTURAL STEEL SHALL CONFORM TO SSPC PS11.01.

D. TIMBER

1. FRAMING MEMBERS SHALL BE DOUGLAS FIR No. 1 GRADE, UNO
2. HOLES FOR BOLTS SHALL BE BORED WITH A 1/32" TO 1/16" LARGER THAN BOLTS.
3. PRIOR TO COMPLETION OF BOLTED CONNECTIONS TO TIMBER, RETIGHTEN AND LOCK ALL BOLTS IN PLACE BY MARRING THE BOLT THREADS OUTSIDE OF THE NUT.
4. ALL BOLTS DIRECTLY CONNECTED TO WOOD SHALL BE EQUIPPED WITH WASHERS; DOME HEAD "TIMBER BOLTS" DO NOT REQUIRE A WASHER UNDER THE BOLT HEAD.
5. ALL BOLTS, LAG SCREWS AND SPIKES SHALL HAVE PREDRILLED PILOT HOLES PRIOR TO INSTALLATION. PER A3 / S-100
6. DO NOT NOTCH POSTS, STRINGERS OR PILE CAPS EXCEPT WHERE SHOWN IN DETAILS.
7. ALL WOOD SHALL BE TREATED WITH 0.6 PCF ACZA. IN ACCORDANCE WITH AWPA P5, P22 & U1.
8. ALL NAILS SHALL BE GALV DEFORMED SHANK COMMON WIRE NAIL AND CONFORM TO FEDERAL SPECIFICATION FF-N-105B, SIZE AND SPACING SHALL BE AS DETAILED OR NOTED ON THE DRAWINGS.
9. SPIKES SHALL CONFORM TO FEDERAL SPECIFICATION FF-N-105B.
10. ANY CUT SURFACES OR DRILLED HOLES MADE IN THE PRESERVATIVE-TREATED WOOD SHALL RECEIVE A TWO-COAT APPLICATION OF PRESERVATIVE AFTER CUTTING OR DRILLING.
11. LUMBER SIZES INDICATED ARE NOMINAL. WHERE LUMBER IS REQUIRED TO MATCH EXISTING CONSTRUCTION. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONAL REQUIREMENTS OF THE TIMBER.

E. ALLOWABLE PIER CONSTRUCTION LOADING

1. PIER LOADS ARE RESTRICTED TO THE FOLLOWING LIVE LOADS:
   UNIFORM LL=100 PSF
   TRUCK LOAD =H10-44, 20,000 LB TOTAL
   (4,000 LB FRONT AXLE AND 16,000 LB REAR AXLE) SEE DETAIL A1/S-001
2. CONSTRUCTION EQUIPMENT ARE RESTRICTED TO THE FOLLOWING:
   WHEN TRAVELING: H10-44.
   WHEN LIFTING: 15,000 LBS OUTRIGGER OR WHEEL LOAD, APPLIED TO AN AREA 4'x4' CENTERED OVER A PILECAP.
3. WITH THE USE OF SPREADER BEAMS AND CRANE MATS, THE MAXIMUM CRAWLER CRANE SIZE IS 12.5 TON.
4. FOR THE TIMBER PILE PORTION OF THE PIER, THE SPREADER BEAMS SHALL BE POSITIONED DIRECTLY OVER THE PILES.

REGISTERED PROFESSIONAL ENGINEER — JESSE N. MARQUEZ — No. 33045 — EXP. 6/30/2024 — STRUCTURAL — STATE OF CALIFORNIA

moffatt & nichol

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE:
THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07 WBS NO. EC-0008-01
REFERENCES
PROJECT ENGINEER
CONTRACTOR
CONSTRUCTION STARTED
CONSTRUCTION COMPLETED
COST INSPECTOR

REVISIONS | DATE / APPROVED

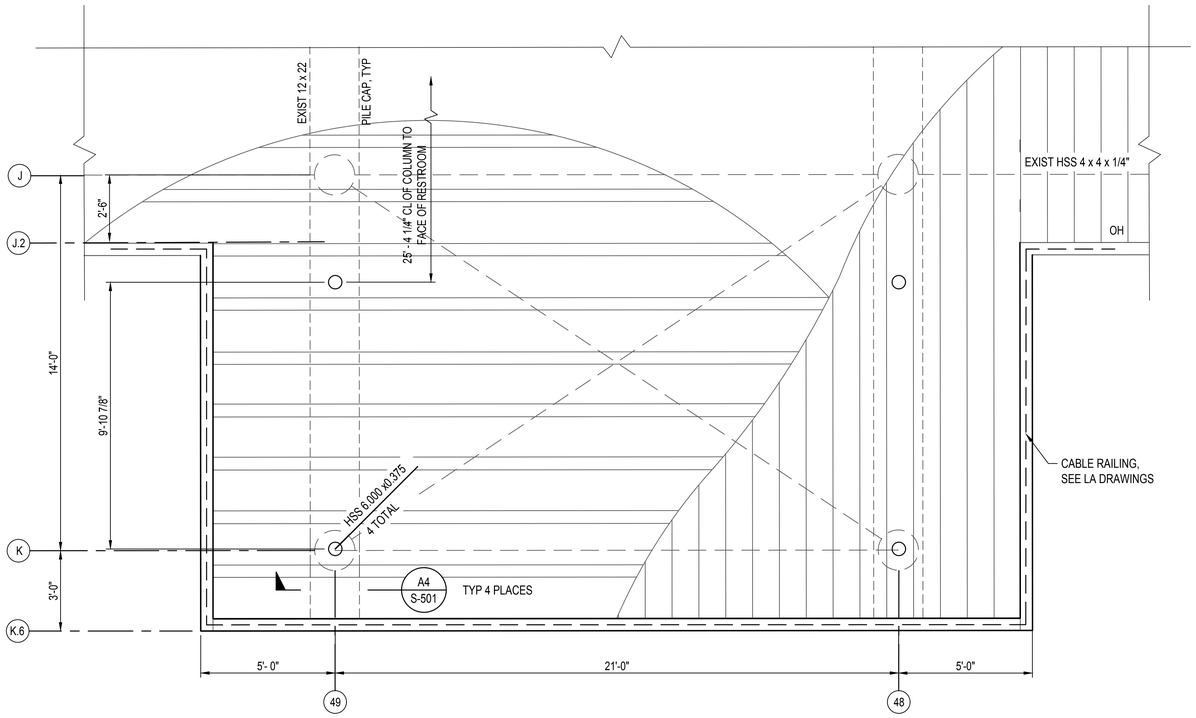
PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED MNM/JKS
DRAWN D. BURROW
CHECKED MNM/JKS

APPROVAL RECOMMENDED — DISTRICT PROJECT MANAGER
APPROVED 8/10/22 Chris Brooks — DISTRICT MANAGER-DESIGN

SAN DIEGO, CALIFORNIA
IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2
GENERAL STRUCTURAL NOTES

DATE JULY 26, 2022
A/E NO. S-001
SHEET 9 OF 30
DRAWING NO. IB-2022-01
REV. -

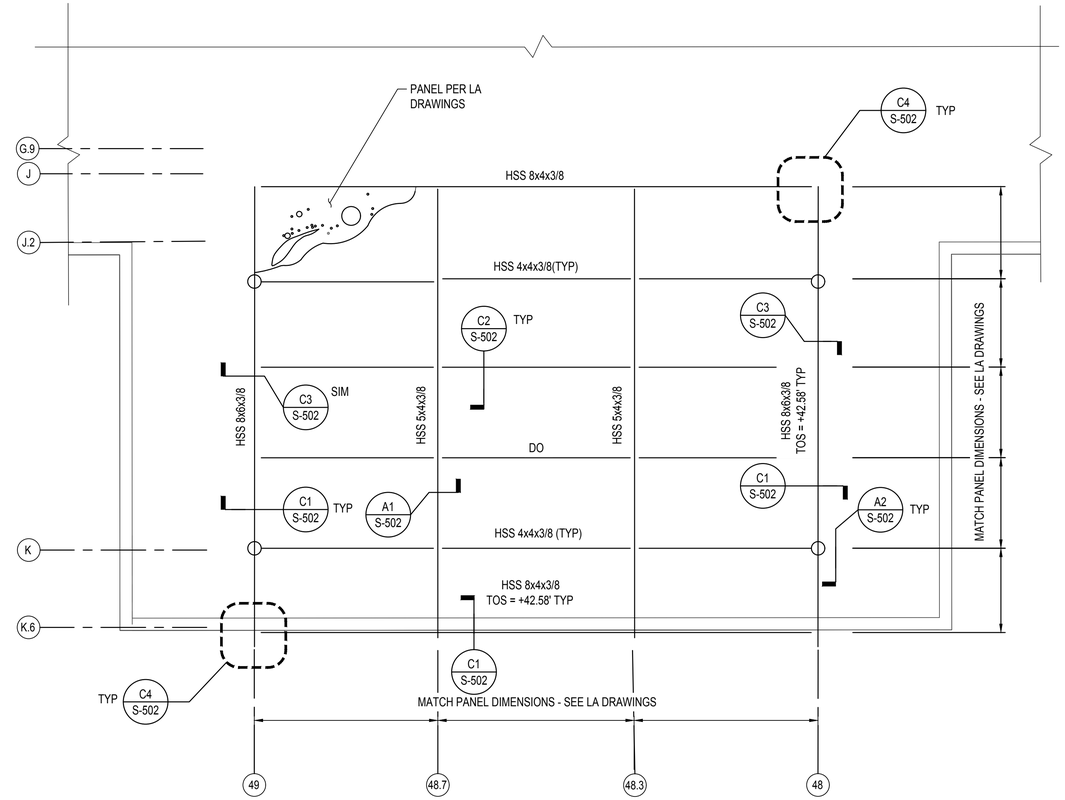


A1 ENLARGED DECK PLAN BELOW CANOPY

SCALE: 3/8"=1'-0"

3/8" = 1' 0 2' 4' 6'

NORTH



A2 PARTIAL ENLARGED PLAN AT CANOPY

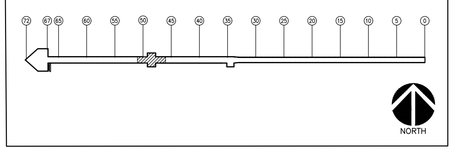
SCALE: 3/8" = 1'-0"

3/8" = 1' 0 2' 4' 6'

NORTH

KEY PLAN

NOT TO SCALE



REGISTERED PROFESSIONAL ENGINEER
No. S345
EXP. 6/30/2024
STRUCTURAL
STATE OF CALIFORNIA

moffatt & nichol

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE:
THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07	WBS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	MNM/JKS
DRAWN	D. BURROW
CHECKED	MNM/JKS

APPROVAL RECOMMENDED — DISTRICT PROJECT MANAGER

APPROVED Chris Brooke 8/10/22 — DISTRICT MANAGER-DESIGN

SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

DECK LEVEL AND CANOPY LEVEL PLANS

DATE	JULY 26, 2022
A/E NO.	S-100
SHEET	10 OF 30
DRAWING NO.	IB-2022-01
REV.	-

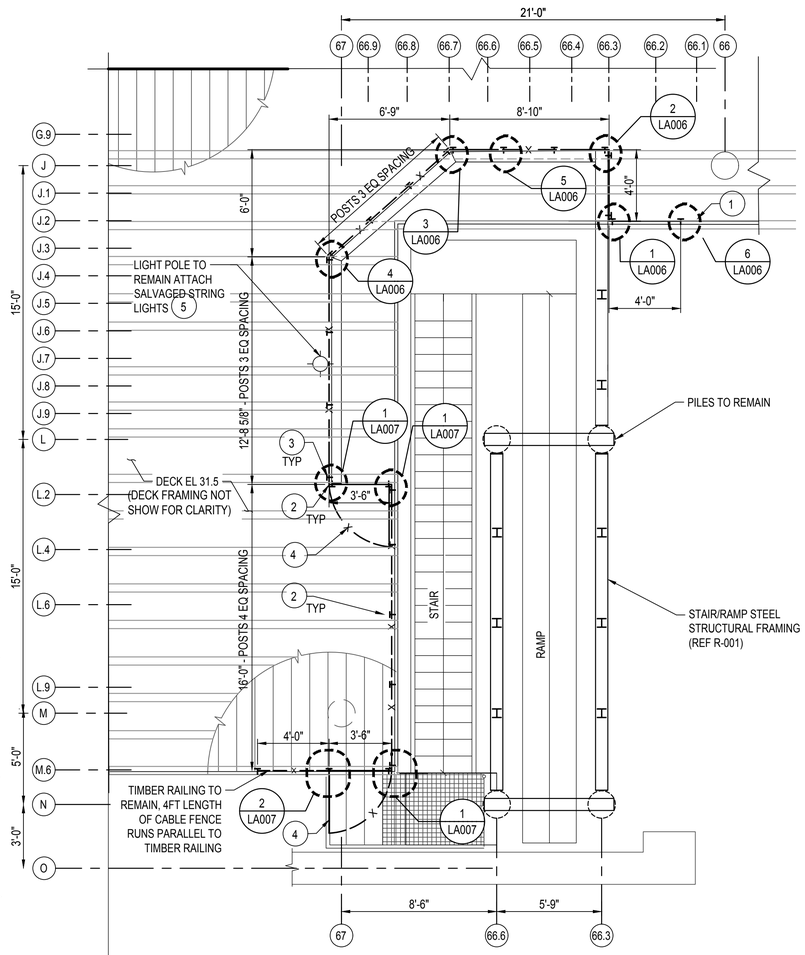
NOTES:

1. INSTALL SALVAGED TIMBER RAIL POST AT END CONDITION
2. INSTALL 6FT TALL CABLE FENCE POSTS AT SPECIFIED LOCATIONS IN POST SCHEDULE
3. TIGHTEN CABLES PER MANUFACTURER
4. INSTALL 6FT TALL GATES (2)
5. INSTALL SALVAGED STRING LIGHTS (AUGMENT WITH ADDITIONAL BOX/SET OF SIMILAR LIGHTS TO PROVIDE SUFFICIENT LENGTH TO MAKE CONNECTION)

POST SCHEDULE NOTES:

1. ALL POSTS ARE 6 1/2"x 6 1/2"x1/2" SS TEE UNO
2. ALL PLATES ARE 1/4" THICK UNO
3. ALL 5/8" LAG SCREWS UNO
   1. 3" LENGTH LAG SCREWS INTO DECKING
   2. 6" LENGTH LAG SCREWS INTO STRINGERS
4. ALL 1/4" FILLET WELDS
5. DECKING BOARDS ARE 4x12
6. STRINGERS ARE 6 x14
7. CL LAG SCREWS TO EDGE OF PLATE IS 1" TYP
8. CL LAG SCREWS TO EDGE OF PIER IS 2 1/2"

SEE LA SHEETS FOR FENCE, GATES, AND CABLE DETAILS.

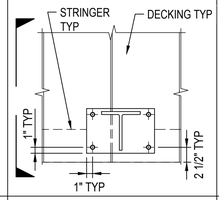
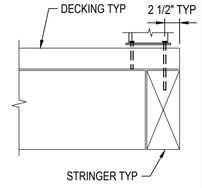
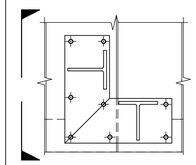
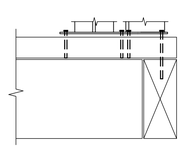
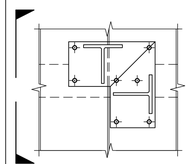
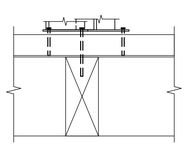
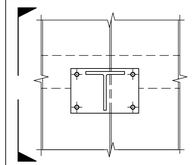
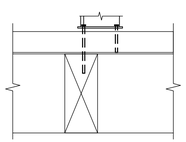
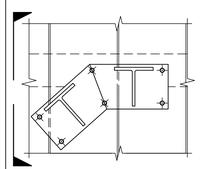
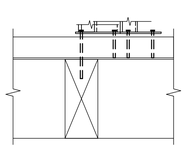
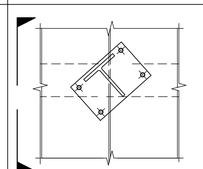
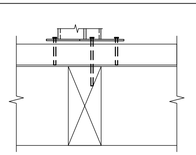
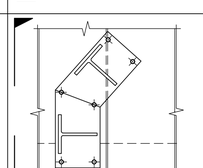
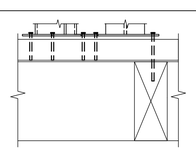


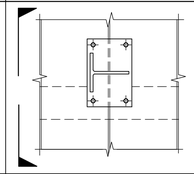
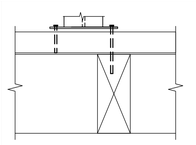
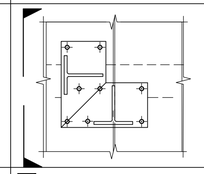
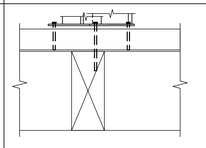
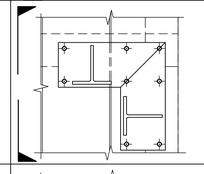
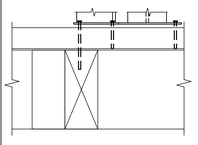
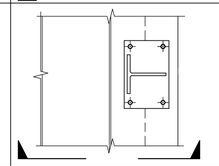
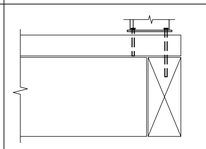
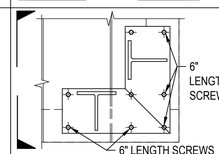
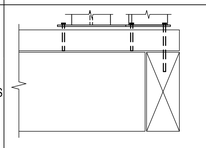
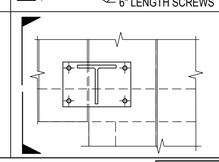
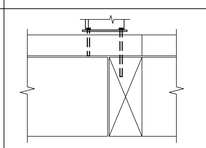
A1 ENLARGED STAIR & RAMP FENCING PLAN

SCALE: 1/4" = 1'-0"

1/4" = 1' 0 2' 4' 8'

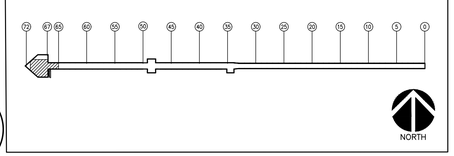
POST SCHEDULE

POST GRID	STRUCTURAL CONFIGURATION PLAN	FENCE POST SECTION	COMMENT
66.1 / J.2			NORTH END POST CONDITION AT EDGE OF DECK
66.3 / J.2			INSIDE CORNER END POSTS AT EDGE OF DECK
66.3 / G.9			OUTSIDE CORNER END POSTS INSIDE DECK (AWAY FROM EDGE)
66.45 / G.9 66.58 / G.9			MIDDLE POSTS INSIDE DECK (AWAY FROM EDGE)
66.7 / G.9			CORNER BEND END POSTS INSIDE DECK (AWAY FROM EDGE)
66.8 / J.1 66.9 / J.2			MIDDLE POSTS INSIDE DECK (AWAY FROM EDGE)
67.0 / J.3			CORNER BEND END POSTS INSIDE DECK (AWAY FROM EDGE)

POST GRID	STRUCTURAL CONFIGURATION PLAN	FENCE POST SECTION	COMMENT
67.0 / J.6 67.0 / J.9			MIDDLE POSTS INSIDE DECK (AWAY FROM EDGE)
67.0 / L.2			OUTSIDE CORNER END POSTS (AWAY FROM EDGE) - GATE LOCATION
66.85 / L2			INSIDE CORNER END POSTS AT EDGE - GATE LOCATION
66.85 / L.4 66.85 / L.6 66.85 / L.9			MIDDLE POSTS AT EDGE OF DECK
66.85 / M.6			INSIDE CORNER END POSTS AT EDGE - GATE LOCATION
67.0 / M.6 67.3 / M.6 SIM			FENCE POST AT SOUTH GATE

KEY PLAN

NOT TO SCALE



ADDITIVE BID ITEM NO. 1 ENTIRE SHEET

moffatt & nichol

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

DOCC NO. 2022-07	ARS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS | DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED MNM/JKS
DRAWN D. BURROW
CHECKED MNM/JKS

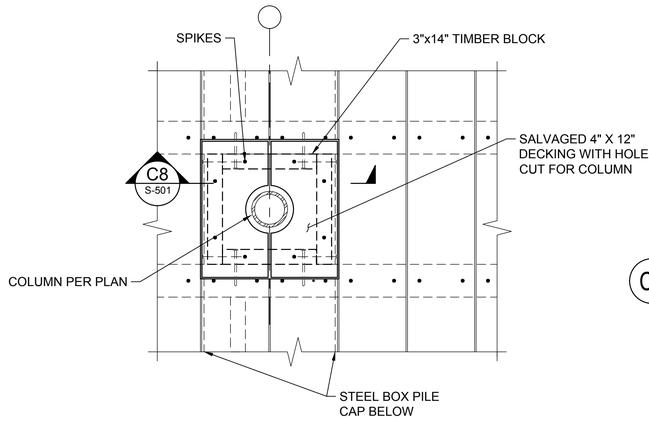
APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER
APPROVED Chris Brooks 8/10/22
DISTRICT MANAGER–DESIGN

SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2

FENCE PLAN AND DETAIL

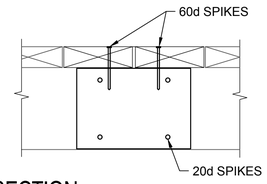
DATE JULY 26, 2022
A/E NO. S-120
SHEET 11 OF 30
DRAWING NO. IB-2022-01
REV. -



C4 REPLACED DECKING AT CANOPY PIPE COLUMN

SCALE: 1" = 1'-0"

1" = 1' 0 1' 2'



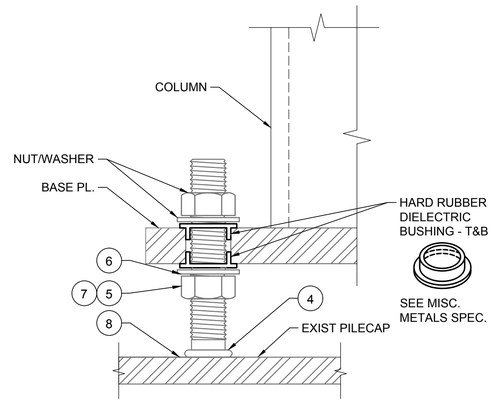
C8 SECTION

SCALE: 1" = 1'-0"

1" = 1' 0 1' 2'

NOTES:

1. INSTALL 3"x14" TIMBER BOARDS
2. INSTALL SALVAGED DECKING ROUND CANOPY COLUMN AND NAIL TO 3" x 14" BOARDS



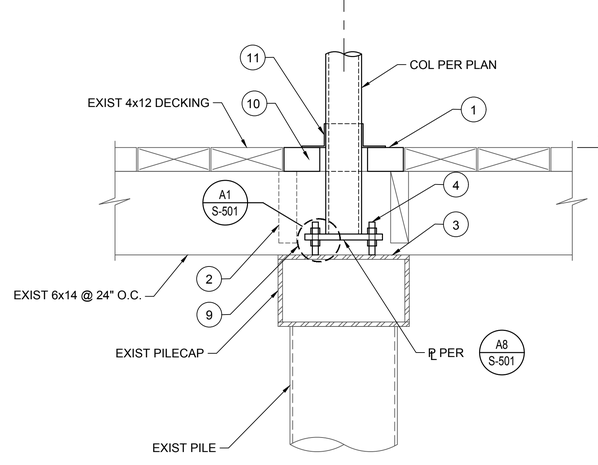
A1 DIELECTRIC BUSHING AT LEVELING NUT

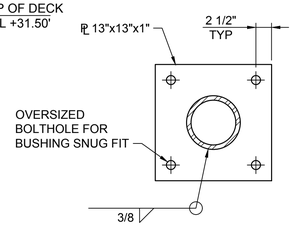
SCALE: 6" = 1'-0"

6" = 1' 0 3" 6" 9" 12"

NOTES:

1. REMOVE DECKING - SEE DETAIL
2. REMOVE BLOCKING
3. REMOVE 12' - SQ. AREA OF COATING ON TOP OF PILECAP TO SSPC-SP3 POWER TOOL CLEANING
4. STUD GUN WELD 3/4" DIA x 4 1/2" NELSON CPL THREADED STUDS TO PILECAP IMMEDIATELY AFTER C LEANING
5. PLACE BOTTOM LEVELING NUTS - ALLOW 1" CLR THREADED STUD.
6. APPLY SPRAY GALVANIZING COMPOUND TO RAW METAL SURFACES AND STUDS BENEATH LEVELING NUT.
7. USE LEVELING NUTS TO ADJUST COLUMN TO PLUMB VERT.
8. RECOAT PILECAP AND EXPOSED PORTION OF WELDED STUD BELOW NUT PER MISC. METALS SPEC
9. PLACE WASHER, LOWER BUSHING, COLUMN/BASE PL ASSEMBLY, UPPER BUSHING, WASHER, AND NUT
10. REPLACE DECKING PER C4 / S-501
11. PLACE COL. ESCUTCHEON COLLAR PER LA DRAWINGS





A8 BASE PLATE

SCALE: 1 1/2" = 1'-0"

1 1/2" = 1' 0 6" 1' 2'

A4 TYP CANOPY COLUMN - PIER DECK CONNECTION

SCALE: 1" = 1'-0"

1" = 1' 0 1' 2'

REGISTERED PROFESSIONAL ENGINEER MATTHEW N. MARTINEZ No. 53045 EXP. 6/30/2024 STRUCTURAL STATE OF CALIFORNIA

moffatt & nichol

RECORD DRAWING

REVIEWED BY:

ENGINEER OF RECORD

DATE:

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07	WBS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO Waterfront of Opportunity

DESIGNED	MNM/JKS
DRAWN	D. BURROW
CHECKED	MNM/JKS
APPROVAL RECOMMENDED	DISTRICT PROJECT MANAGER
APPROVED	Chris Brooks 8/10/22 DISTRICT MANAGER--DESIGN

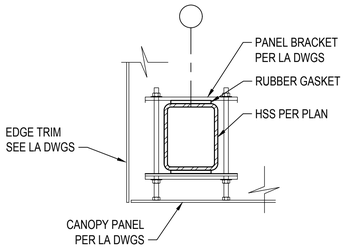
SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

CANOPY DECK DETAILS

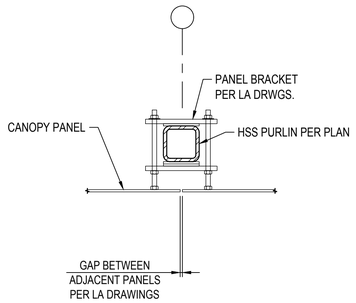
DATE	JULY 26, 2022
A/E NO.	S-501
SHEET	12 OF 30
DRAWING NO.	IB-2022-01
REV.	-

Aug 09, 2022 - 5:20pm Q:\SD\212326-03 ib pier enhancements phase 2\20 CADD_Active_Design_03 STRUCTURAL\IB-2022-01-S-500.dwg



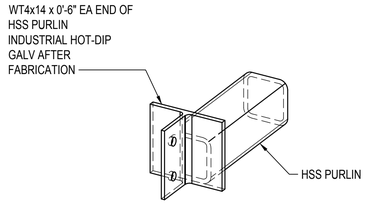
C1 DETAIL - CANOPY PANEL - EDGE BM SUPPORT

SCALE: 1 1/2" = 1'-0"

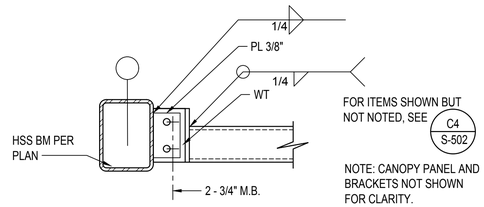


C2 DETAIL - CANOPY PANEL - INTERIOR PURLIN SUPPORT

SCALE: 1 1/2" = 1'-0"

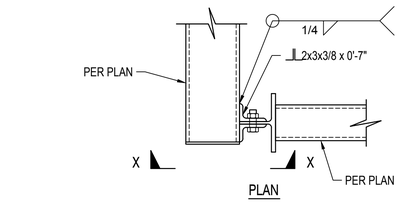


ISOMETRIC - TYP PURLIN END PL

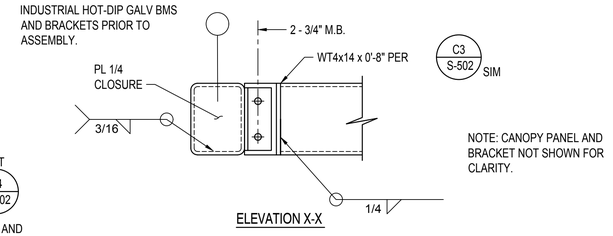


C3 DETAIL - PURLIN-EDGE BM SUPPORT

SCALE: 1 1/2" = 1'-0"



PLAN

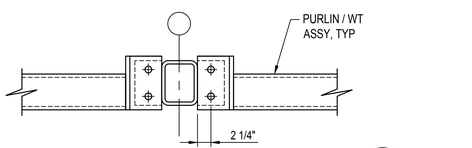


ELEVATION X-X

C4 DETAIL - EDGE BM CONNECTION

SCALE: 1 1/2" = 1'-0"

PLAN

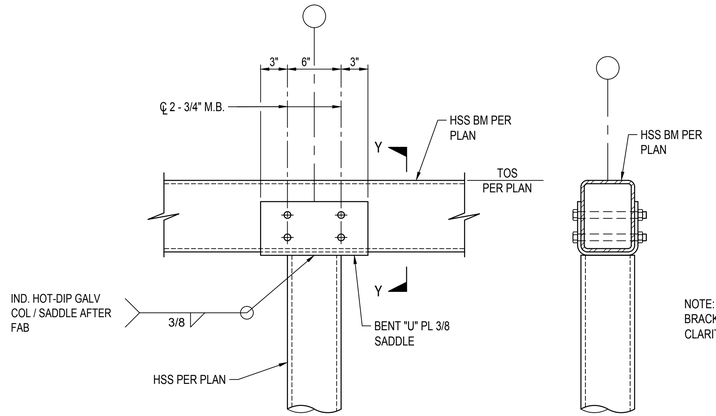


ELEVATION

NOTE: SEE C3 S-502 FOR ITEMS SHOWN BUT NOT NOTED

A1 DETAIL - INTERIOR BM - PURLIN SUPPORT

SCALE: 1 1/2" = 1'-0"



ELEVATION

SECTION Y-Y

NOTE: CANOPY PANEL AND BRACKET NOT SHOWN FOR CLARITY.

A2 DETAIL - EXTERIOR BM TO COLUMN CONNECTION

SCALE: 1 1/2" = 1'-0"

1'-0" 0'-0" 6" 1'-0"

SCALE: 1 1/2"=1'-0"

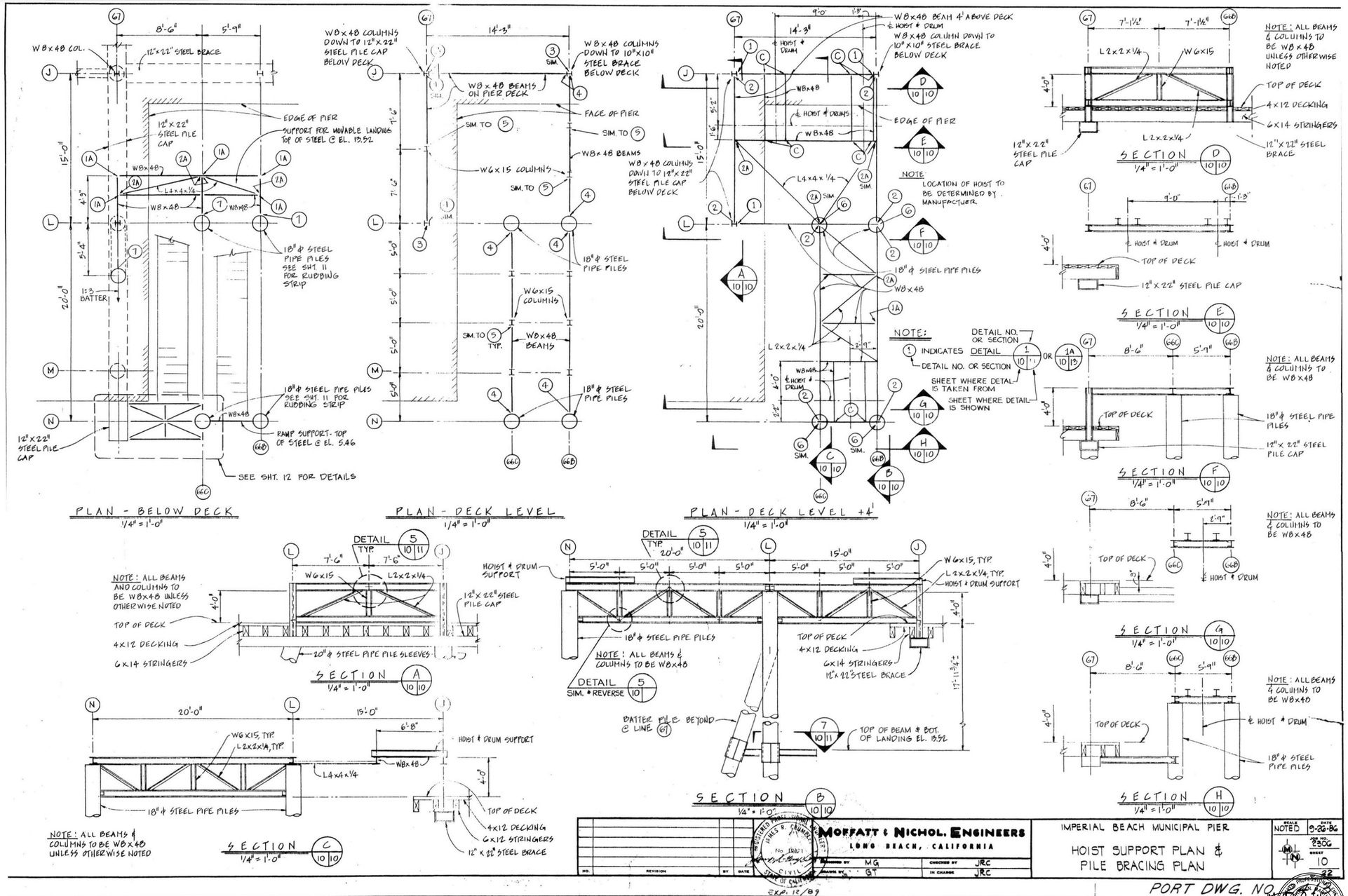
REGISTERED PROFESSIONAL ENGINEER
MARTIN N. MARTINEZ
No. 53045
EXP. 6/30/2024
STRUCTURAL
STATE OF CALIFORNIA

moffatt & nichol

RECORD DRAWING REVIEWED BY: ENGINEER OF RECORD DATE:	NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.	SPEC NO. 2022-07 WBS NO. EC-0008-01 REFERENCES PROJECT ENGINEER CONTRACTOR CONSTRUCTION STARTED CONSTRUCTION COMPLETED COST INSPECTOR	REVISIONS / DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED MNM/JKS DRAWN D. BURROW CHECKED MNM/JKS	APPROVAL RECOMMENDED DISTRICT PROJECT MANAGER APPROVED Chris Brooks 8/10/22 DISTRICT MANAGER-DESIGN	SAN DIEGO, CALIFORNIA IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2 CANOPY FRAMING DETAILS	DATE JULY 26, 2022 A/E NO. S-502 SHEET 13 OF 30 DRAWING NO. IB-2022-01 REV. -



MOFFATT & NICHOL, ENGINEERS
LONG BEACH, CALIFORNIA

DESIGNED MG | CHECKED JRC
DRAWN GT | IN CHARGE JRC

IMPERIAL BEACH MUNICIPAL PIER

HOIST SUPPORT PLAN & PILE BRACING PLAN

SCALE NOTED | DATE 0-26-22
JOB NO. 2806
SHEET 10
22

PORT DWG. NO.

REGISTERED PROFESSIONAL ENGINEER JAMES R. THOMPSON No. 18021 CIVIL STATE OF CALIFORNIA EXP. 12/23

REGISTERED PROFESSIONAL ENGINEER MATTHEW K. SMITH No. 53045 EXP. 6/30/2024 STRUCTURAL STATE OF CALIFORNIA

REFERENCE DRAWING

moffatt & nichol

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE:
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SPEC NO. 2022-07	WBS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS | DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	MNM/JKS
DRAWN	D. BURROW
CHECKED	MNM/JKS

APPROVAL RECOMMENDED — DISTRICT PROJECT MANAGER
APPROVED Chris Brooke 8/10/22 — DISTRICT MANAGER-DESIGN

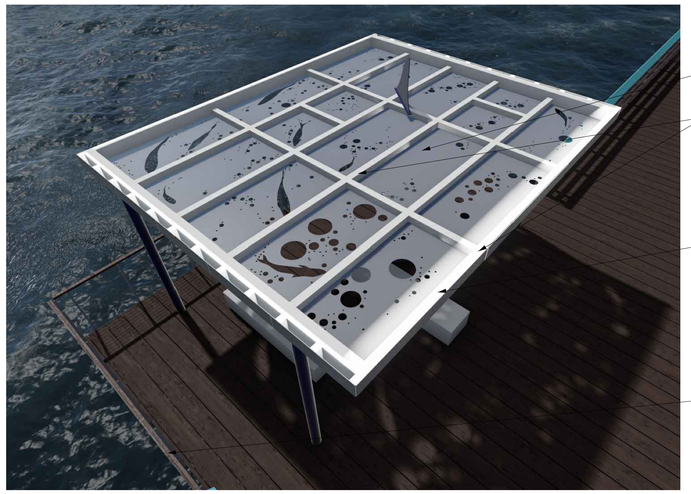
SAN DIEGO, CALIFORNIA

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

REFERENCE DRAWING

DATE	JULY 26, 2022
A/E NO.	R-001
SHEET	14 OF 30
DRAWING NO.	IB-2022-01
REV.	-

Aug 09, 2022 - 10:34am Q:\SD\212326-03 ib pier enhancements phase 2\20 CADD\ Active\ Design\ 04 REFERENCE\IB-2022-01-R-001.dwg



STAINLESS STEEL OVERHEAD CANOPY, SEE SHEET LA002

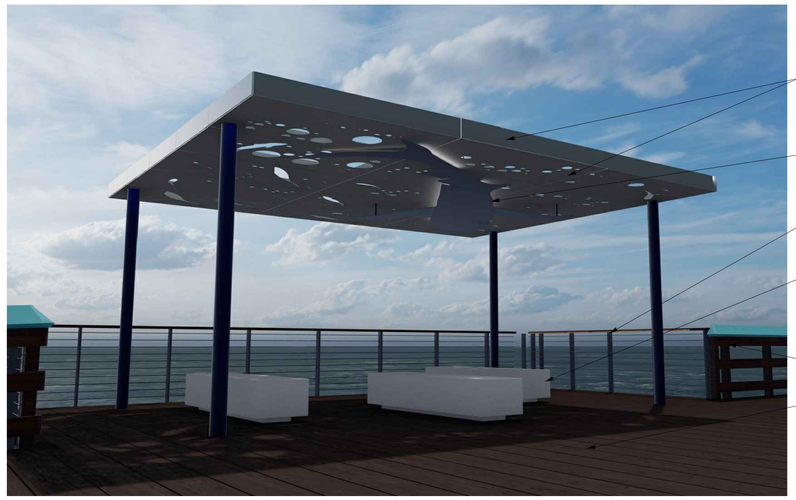
FRAMING MEMBERS, TYP. RE; STRUCT

LED PERIMETER ACCENT LIGHT, RE: ELEC

LIT CABLE GUARD RAIL , SEE SHEET LA005

NOTE: ILLUSTRATION IS APPROXIMATE AND FOR REFERENCE PURPOSES ONLY

1 CONCEPTUAL 3D CANOPY - BIRDSEYE
SCALE: NTS



STAINLESS STEEL OVERHEAD CANOPY, SEE SHEET LA002

STAINLESS STEEL UNDER HANGING SHARK CUT-OUT WITH BACKLIGHT, SEE 3/LA002

LIT CABLE GUARD RAIL, SEE SHEET LA005

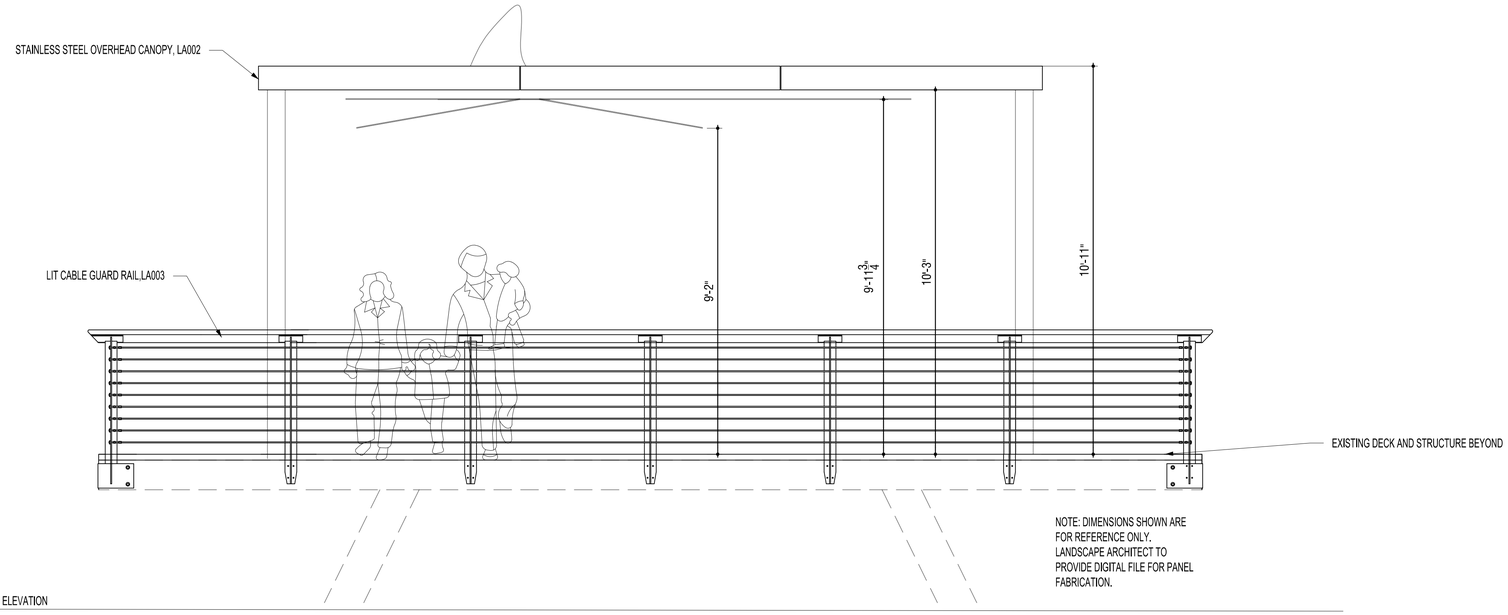
BENCHES NOT IN CONTRACT, FOR ILLUSTRATIVE PURPOSES ONLY

EXISTING GUARDRAIL TO REMAIN

EXISTING DECK TO REMAIN

NOTE: ILLUSTRATION IS APPROXIMATE AND FOR REFERENCE PURPOSES ONLY

2 CONCEPTUAL 3D CANOPY - EYE LEVEL
SCALE: NTS



NOTE: DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. LANDSCAPE ARCHITECT TO PROVIDE DIGITAL FILE FOR PANEL FABRICATION.

3 CANOPY AND GUARD RAIL ELEVATION
SCALE: SCALE 3/4" = 1'

LICENSED LANDSCAPE ARCHITECT MARK W. JOHNSON NO. 5513 STATE OF CALIFORNIA
Signature
06-27-2022
Planner Date
06-30-2022
Date

CIVITAS

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE:
THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07	WBS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS | DATE / APPROVED

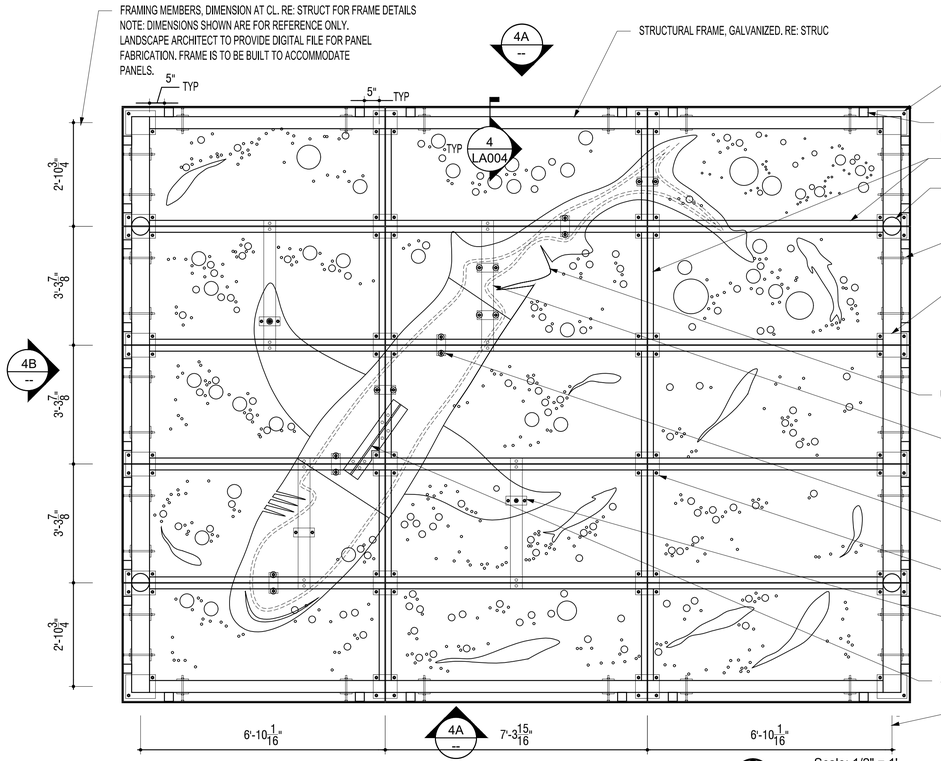
PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED K HOPKINS
DRAWN K HOPKINS
CHECKED S JORDAN

APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER
APPROVED Chris Brooke 8/10/22
DISTRICT MANAGER--DESIGN

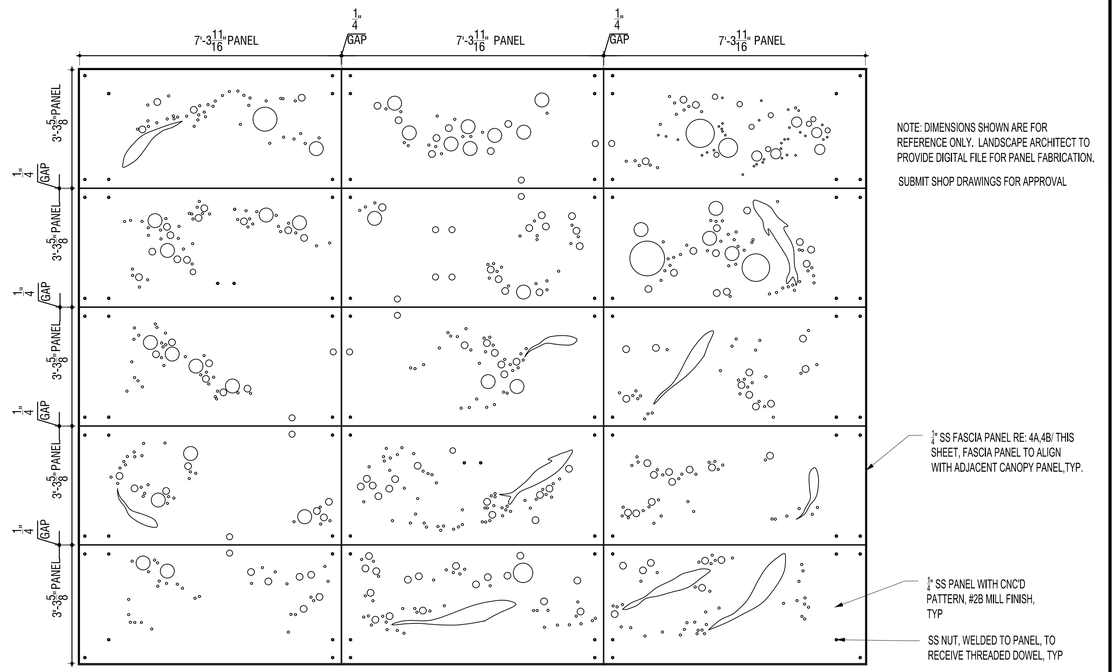
IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2
3D CONCEPT

DATE JUNE 27, 2022
A/E NO. LA001
SHEET 15 OF 30
DRAWING NO. IB-2022-01
REV. -

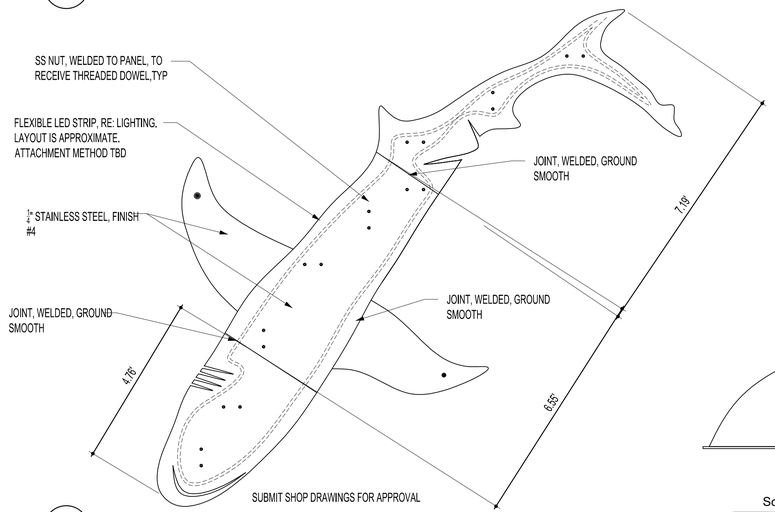


1 CANOPY LAYOUT
SCALE: 1/2"=1'

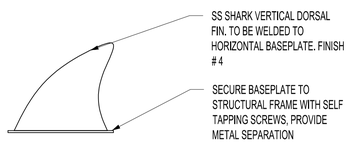
Scale: 1/2" = 1'
0 1 2 4



2 CANOPY "SEA" PANEL LAYOUT
SCALE: 1/2"=1'

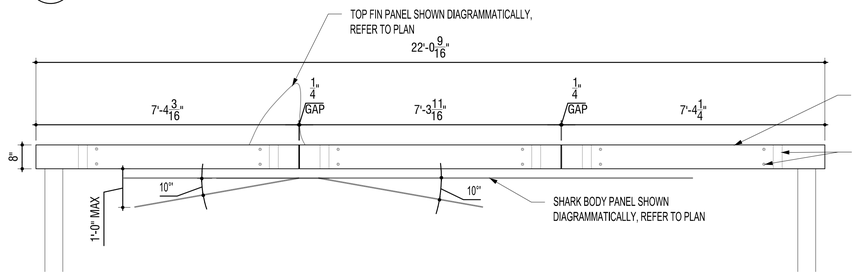


NOTE: DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. LANDSCAPE ARCHITECT TO PROVIDE DIGITAL FILE FOR PANEL FABRICATION.



3 CANOPY "SHARK" CUTOUT LAYOUT
SCALE: 1/2"=1'

Scale: 1/2" = 1'
0 1 2 4



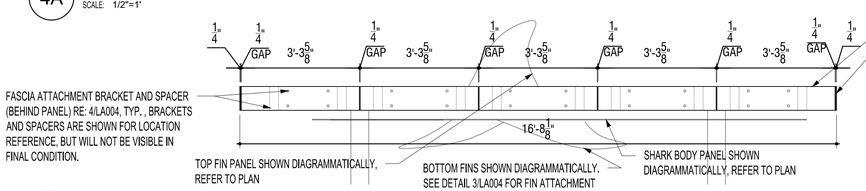
NOTE: DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. LANDSCAPE ARCHITECT TO PROVIDE DIGITAL FILE FOR PANEL FABRICATION.

SUBMIT SHOP DRAWINGS FOR APPROVAL

1/4" SS FASCIA PANEL, #2B MILL FINISH. FASCIA PANEL TO ALIGN WITH ADJACENT CANOPY PANEL,TYP.

FASCIA ATTACHMENT BRACKET AND SPACER (BEHIND PANEL) RE: 4/LA004, TYP. , BRACKETS AND SPACERS ARE SHOWN FOR LOCATION REFERENCE, BUT WILL NOT BE VISIBLE IN FINAL CONDITION.

4A CANOPY ELEVATION, FASCIA PANEL - NORTH AND SOUTH SIDES
SCALE: 1/2"=1'
SCALE .5" = 1'



1/4" SS FASCIA PANEL, FASCIA PANEL TO ALIGN WITH ADJACENT CANOPY PANEL,TYP.

NOTE: DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. LANDSCAPE ARCHITECT TO PROVIDE DIGITAL FILE FOR PANEL FABRICATION.

SUBMIT SHOP DRAWINGS FOR APPROVAL

4B CANOPY ELEVATION, FASCIA PANEL - EAST AND WEST SIDE
SCALE: 1/2"=1'

LICENSED LANDSCAPE ARCHITECT
MARK W. JOHNSON NO. 5513
Signature
06-27-2022
Planning Date
Stamp
STATE OF CALIFORNIA

CIVITAS

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE:
THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07	WBS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

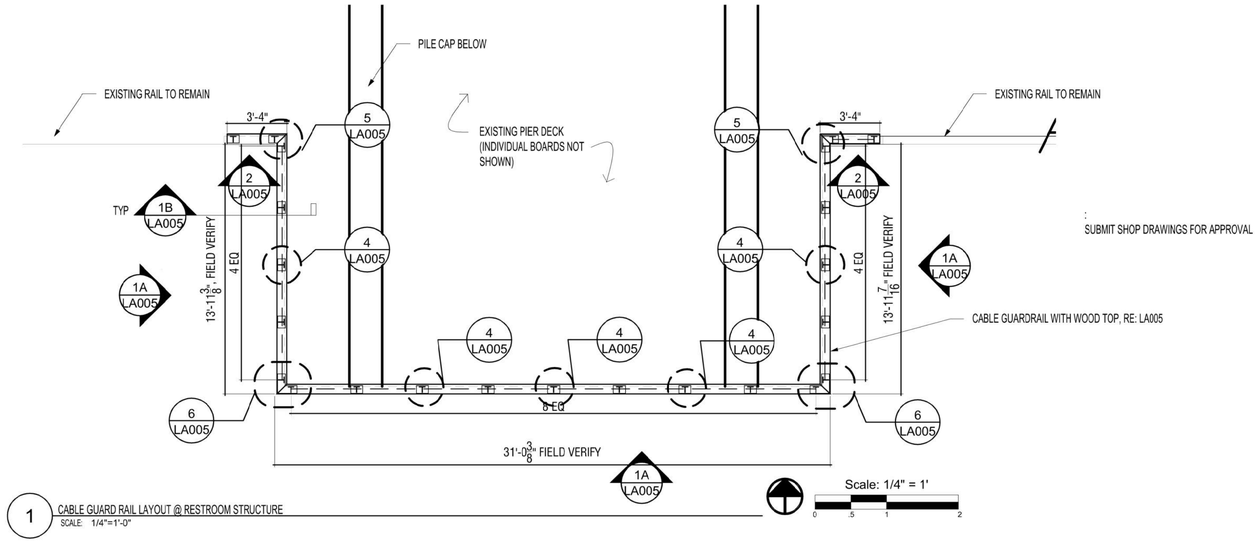
PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	K HOPKINS
DRAWN	K HOPKINS
CHECKED	S JORDAN

APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER
APPROVED
Chris Brooks 8/10/22
DISTRICT MANAGER–DESIGN

IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2
CANOPY PLAN

DATE	JUNE 27, 2022
A/E NO.	LA002
SHEET	16 OF 30
DRAWING NO.	IB-2022-01
REV.	-



1 CABLE GUARD RAIL LAYOUT @ RESTROOM STRUCTURE
SCALE 1/4"=1'-0"

:
SUBMIT SHOP DRAWINGS FOR APPROVAL

ADDITIVE BID ITEM NO. 1

SEE S-120 FOR PIER END 6' FENCE LAYOUT

LICENSED LANDSCAPE ARCHITECT
MARK W. JOHNSON NO. 5513
STATE OF CALIFORNIA
Signature
06-27-2022
Date

CIVITAS

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-08	WBS NO. CP-0021-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	K HOPKINS
DRAWN	K HOPKINS
CHECKED	S JORDAN

APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER

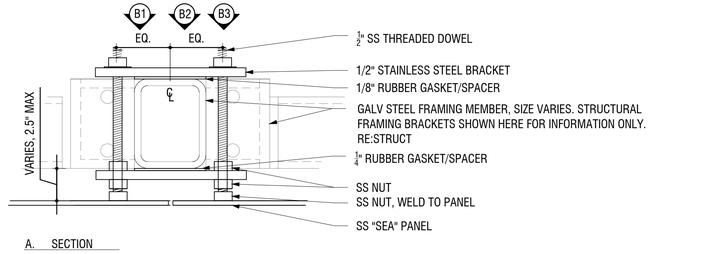
APPROVED
Chris Brooke 8/10/22
DISTRICT MANAGER-DESIGN

IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2
GUARDRAIL PLAN

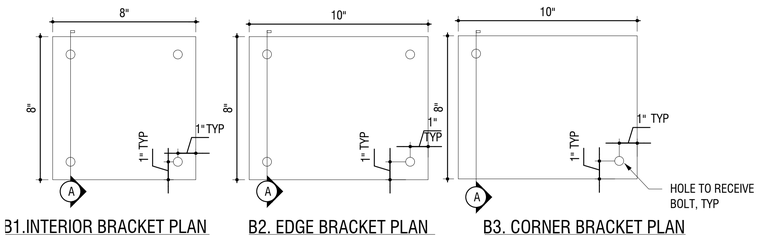
DATE	AUGUST, 9, 2022
A/E NO.	LA003
SHEET	17 OF 30
DRAWING NO.	IB-2022-01
REV.	-

NOTE: DIMENSIONS SHOWN ARE APPROX. LANDSCAPE ARCHITECT TO PROVIDE DIGITAL FILE FOR FABRICATION. BRACKETS ARE TO BE MACHINED OR CNC'D WITH PRECISION TO MATCH PANELS TO ENSURE LOW INSTALLATION ERROR TOLERANCE.

SUBMIT SHOP DRAWINGS FOR APPROVAL



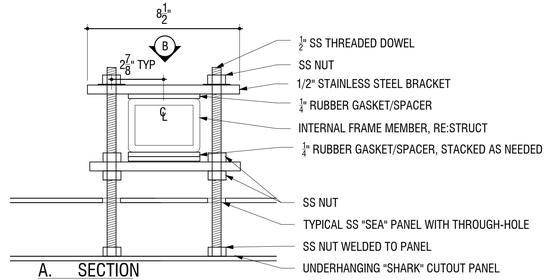
A. SECTION



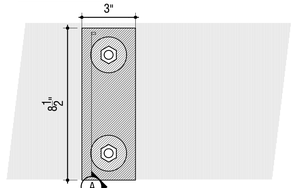
B1.INTERIOR BRACKET PLAN B2. EDGE BRACKET PLAN B3. CORNER BRACKET PLAN

1 CANOPY PANEL ATTACHMENT BRACKET

SCALE: 3" = 1'-0"



A. SECTION



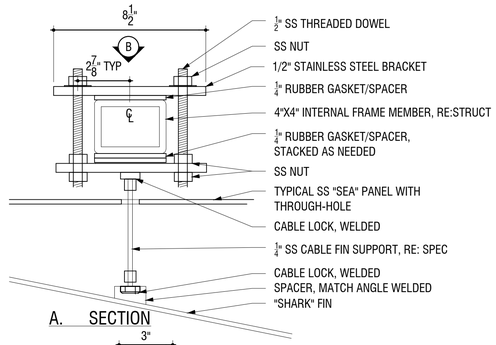
B. PLAN

NOTE: DIMENSIONS SHOWN ARE APPROX. LANDSCAPE ARCHITECT TO PROVIDE DIGITAL FILE FOR FABRICATION. BRACKETS ARE TO BE MACHINED OR CNC'D WITH PRECISION TO MATCH PANELS TO ENSURE LOW INSTALLATION ERROR TOLERANCE.

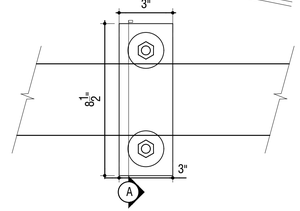
SUBMIT SHOP DRAWINGS FOR APPROVAL

2 SHARK CUT-OUT ATTACHMENT BRACKET

SCALE: 3" = 1'-0"



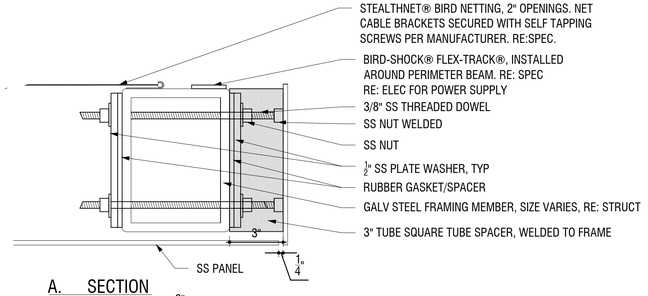
A. SECTION



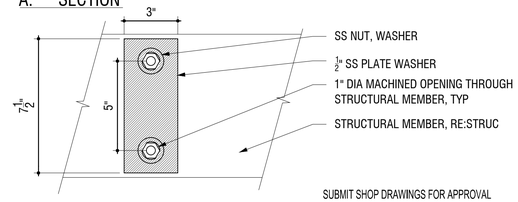
SUBMIT SHOP DRAWINGS FOR APPROVAL

3 SHARK FIN ATTACHMENT BRACKET

SCALE: 3" = 1'-0"



A. SECTION

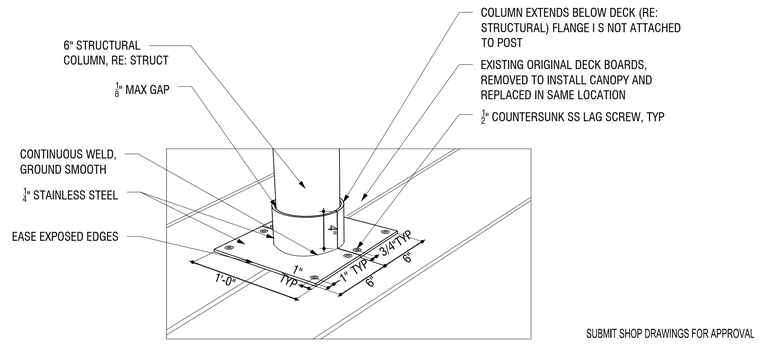


SUBMIT SHOP DRAWINGS FOR APPROVAL

B. PLAN

4 FASCIA ATTACHMENT BRACKET

SCALE: 3" = 1'-0"



SUBMIT SHOP DRAWINGS FOR APPROVAL

5 COLUMN BASE DECORATIVE FLANGE

SCALE: 1 1/2" = 1'-0"

LICENSED LANDSCAPE ARCHITECT MARK W. JOHNSON NO. 5513 STATE OF CALIFORNIA
Signature
06-27-2022
Date per 5509 (3)(b)(1) Date

CIVITAS

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07	WBS NO. EC-0008-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

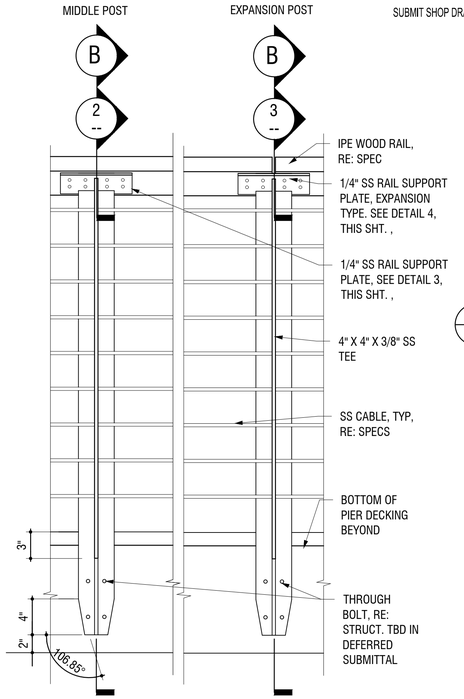
PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED K HOPKINS
DRAWN K HOPKINS
CHECKED S JORDAN

APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER
APPROVED Chris Brooks 8/10/22
DISTRICT MANAGER–DESIGN

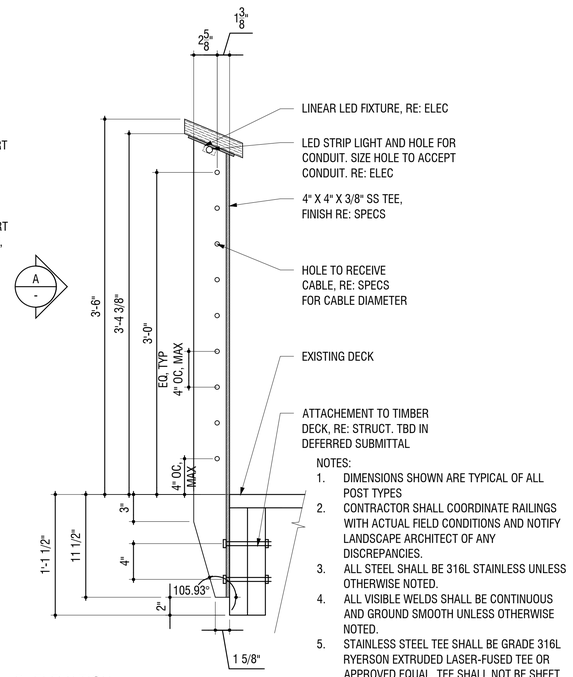
IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2
CANOPY DETAILS

DATE JUNE 27, 2022
A/E NO. LA004
SHEET 18 OF 30
DRAWING NO. IB-2022-01
REV. -



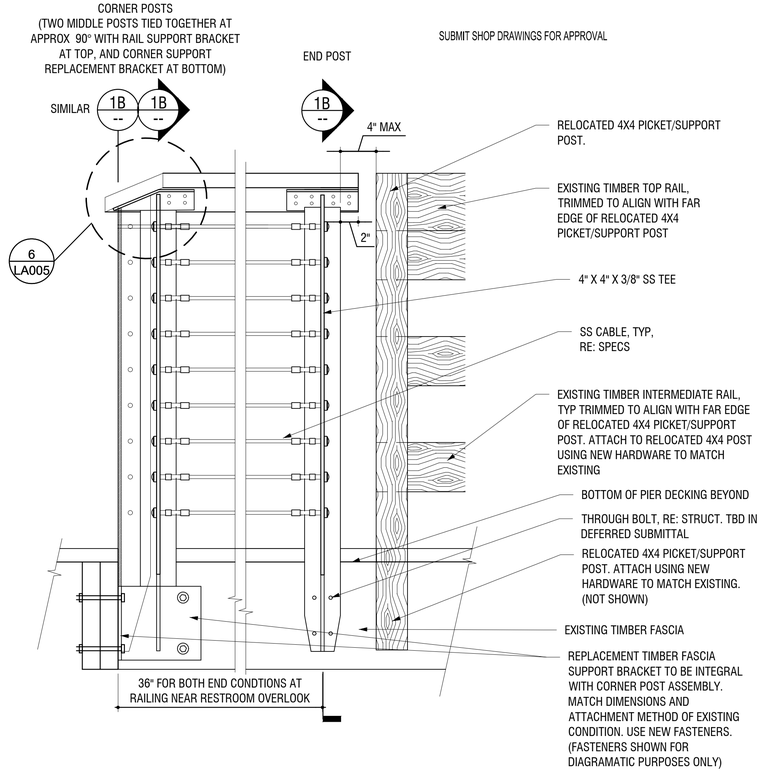
A. ELEVATION
SCALE: 1-1/2" = 1'-0"

SUBMIT SHOP DRAWINGS FOR APPROVAL

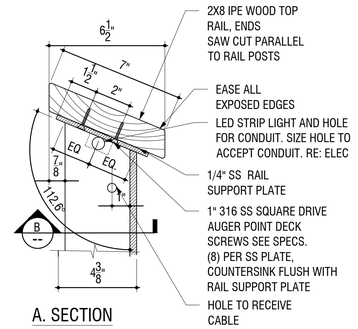


B. ELEVATION
SCALE: 1-1/2" = 1'-0"

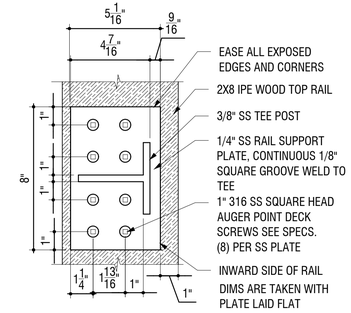
NOTES:
1. DIMENSIONS SHOWN ARE TYPICAL OF ALL POST TYPES
2. CONTRACTOR SHALL COORDINATE RAILINGS WITH ACTUAL FIELD CONDITIONS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
3. ALL STEEL SHALL BE 316L STAINLESS UNLESS OTHERWISE NOTED.
4. ALL VISIBLE WELDS SHALL BE CONTINUOUS AND GROUND SMOOTH UNLESS OTHERWISE NOTED.
5. STAINLESS STEEL TEE SHALL BE GRADE 316L RYERSON EXTRUDED LASER-FUSED TEE OR APPROVED EQUAL. TEE SHALL NOT BE SHEET ROLLED TYPE.



SUBMIT SHOP DRAWINGS FOR APPROVAL

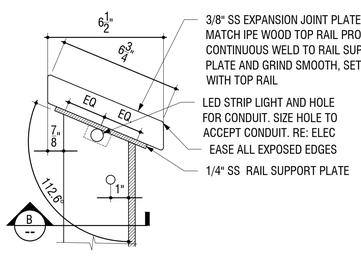


A. SECTION



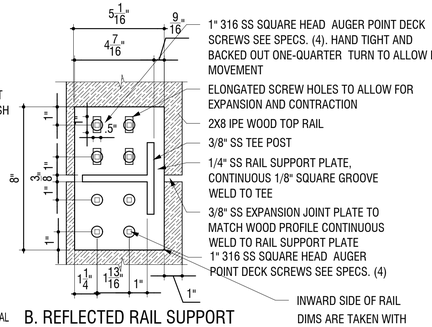
B. REFLECTED RAIL SUPPORT PLAN

1 TYPICAL CABLE GUARD RAIL SECTION AND ELEVATION
SCALE: 1 1/2" = 1'-0"



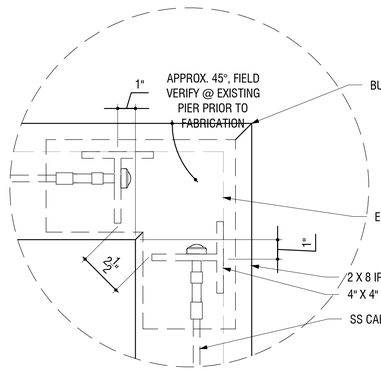
A. SECTION

SUBMIT SHOP DRAWINGS FOR APPROVAL



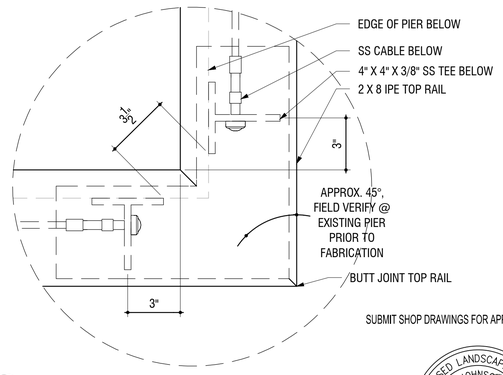
B. REFLECTED RAIL SUPPORT PLAN AT EXPANSION JOINT

2 GUARDRAIL - INSIDE CORNER ELEVATION AND END CONDITION
SCALE: 1 1/2" = 1'-0"



SUBMIT SHOP DRAWINGS FOR APPROVAL

3 GUARD RAIL WOOD TOP
SCALE: 3" = 1'-0"



SUBMIT SHOP DRAWINGS FOR APPROVAL

4 GUARD RAIL WOOD TOP EXPANSION JOINT
SCALE: 3" = 1'-0"

5 GUARDRAIL INSIDE CORNER
SCALE: 3" = 1'-0"

6 GUARD RAIL OUTSIDE CORNER
SCALE: 3" = 1'-0"

LICENSED LANDSCAPE ARCHITECT
MARK W. JOHNSON NO. 5513
STATE OF CALIFORNIA
Signature
06-27-2022
Date
Date Signed

CIVITAS

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07	WBS NO. EC-0008-01		
REFERENCES			
PROJECT ENGINEER			
CONTRACTOR			
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST	INSPECTOR	REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

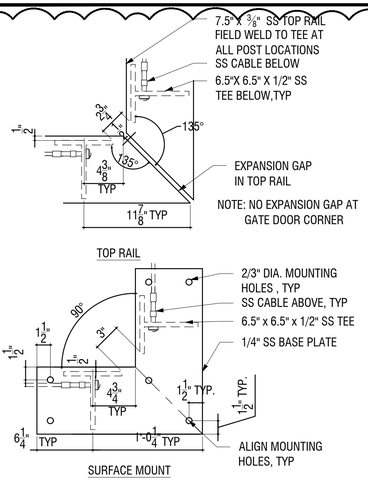
DESIGNED	K HOPKINS
DRAWN	K HOPKINS
CHECKED	S JORDAN

APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER
APPROVED
Chris Brooks 8/10/22
DISTRICT MANAGER–DESIGN

IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2
GUARDRAIL DETAILS

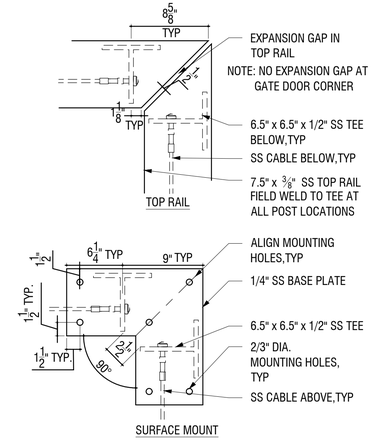
DATE	JUNE 27, 2022
A/E NO.	LA005
SHEET	19 OF 30
DRAWING NO.	IB-2022-01
REV.	-

ADDITIVE BID ITEM NO. 1



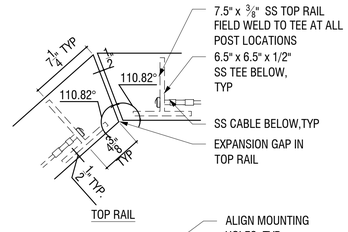
1 CABLE FENCE INSIDE CORNER

SCALE: 1 1/2" = 1'-0"



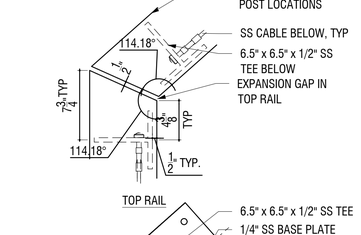
2 CABLE FENCE OUTSIDE CORNER

SCALE: 1 1/2" = 1'-0"



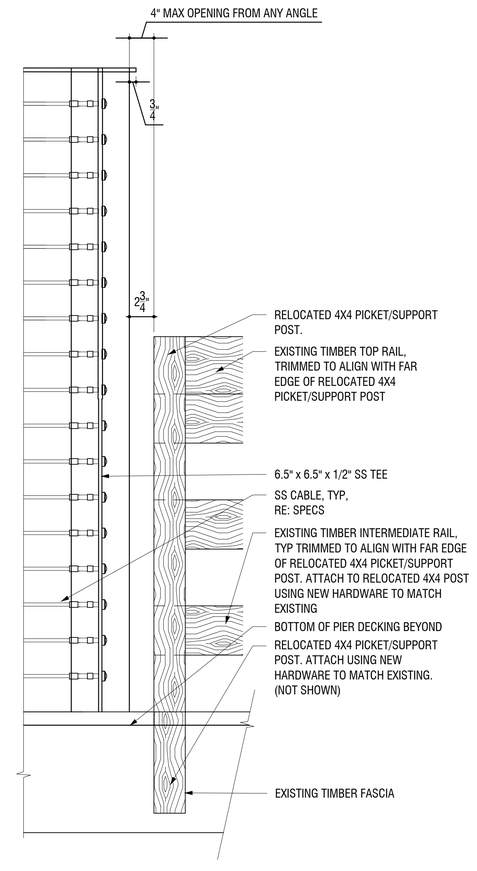
3 CABLE FENCE CORNER ANGLE 1

SCALE: 1 1/2" = 1'-0"



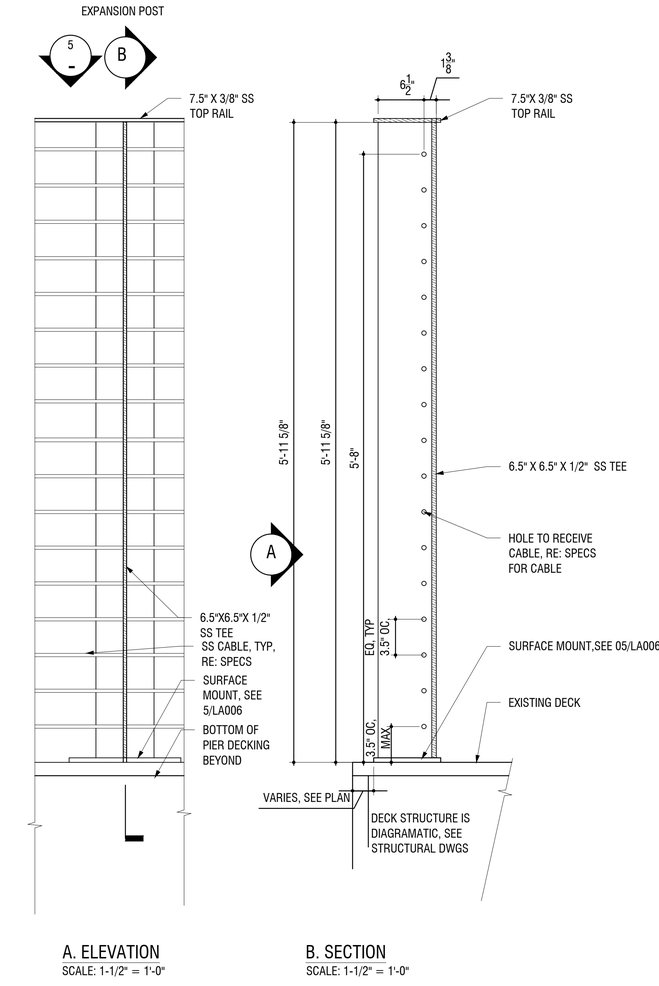
4 CABLE FENCE CORNER ANGLE 2

SCALE: 1 1/2" = 1'-0"



6 CABLE FENCE - END CONDITION

SCALE: 1 1/2" = 1'-0"



A. ELEVATION

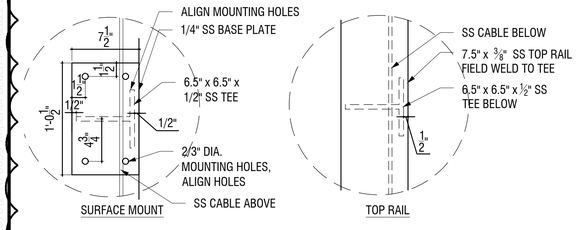
SCALE: 1-1/2" = 1'-0"

B. SECTION

SCALE: 1-1/2" = 1'-0"

7 CABLE FENCE - TYPICAL SECTION AND ELEVATION

SCALE: 1 1/2" = 1'-0"



5 CABLE FENCE SS TEE

SCALE: 1 1/2" = 1'-0"

NOTES:

1. FINISH FOR STAINLESS STEEL ELEMENTS, RE: SPECS
2. FOR ALL FENCING, GUARDRAIL, AND ASSOCIATED COMPONENTS, SUBMIT FULL SHOP DRAWINGS AND MOCK UP FOR APPROVAL PRIOR TO FABRICATION. MOCKUP TO INCLUDE 1 SECTION (2 POSTS) AND MAY BE USED AS PART OF FINAL FENCE.
3. DIMENSIONS SHOWN ARE TYPICAL OF ALL POST TYPES
4. CONTRACTOR SHALL COORDINATE RAILINGS WITH ACTUAL FIELD CONDITIONS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. FIELD MEASURE ALL ADJACENT EXISTING CONDITIONS AND INCLUDE IN SHOP DRAWINGS
5. ALL STEEL SHALL BE 316L STAINLESS UNLESS OTHERWISE NOTED.
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8. ALL FASTENERS TO BE 316 SS

CIVITAS

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-08	WBS NO. CP-0021-01		
REFERENCES			
PROJECT ENGINEER			
CONTRACTOR			
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST	INSPECTOR	REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	K HOPKINS	
DRAWN	K HOPKINS	
CHECKED	S JORDAN	
APPROVAL RECOMMENDED	DISTRICT PROJECT MANAGER	
APPROVED	8/10/22	
	DISTRICT MANAGER-DESIGN	

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

CABLE FENCE DETAILS

DATE	AUGUST, 9, 2022
A/E NO.	LA006
SHEET	20 OF 30
DRAWING NO.	IB-2022-01
REV.	-

ADDITIVE BID ITEM NO. 1

NOTES:
1. FINISH FOR STAINLESS STEEL ELEMENTS, RE: SPECS
2. FOR ALL FENCING, GUARDRAIL, AND ASSOCIATED COMPONENTS, SUBMIT FULL SHOP DRAWINGS AND MOCK UP FOR APPROVAL PRIOR TO FABRICATION. MOCKUP TO INCLUDE 1 SECTION (2 POSTS) AND MAY BE USED AS PART OF FINAL FENCE.
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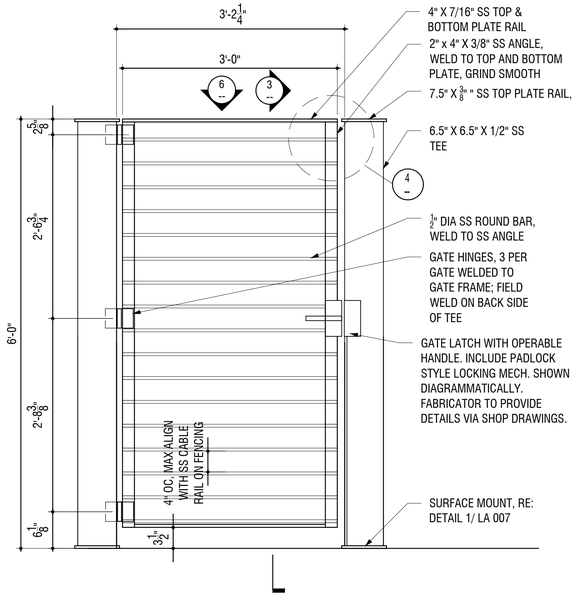
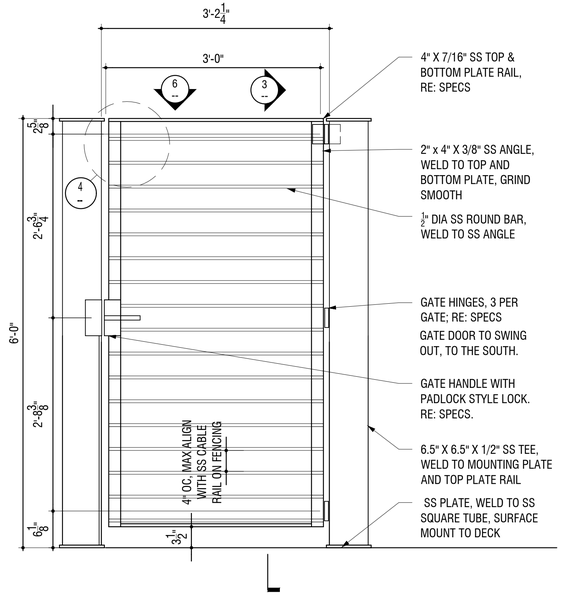
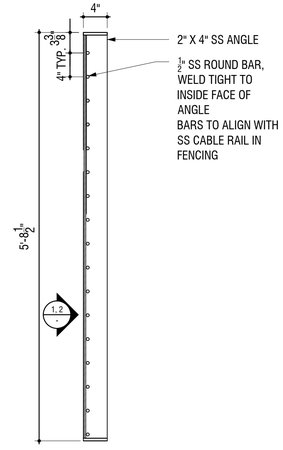


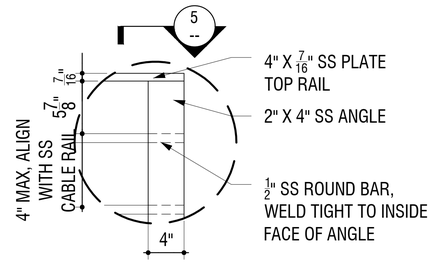
1 NORTH GATE ELEVATION
SCALE: 1" = 1'-0"



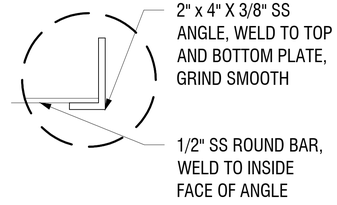
2 SOUTH GATE ELEVATION
SCALE: 1 1/2" = 1'



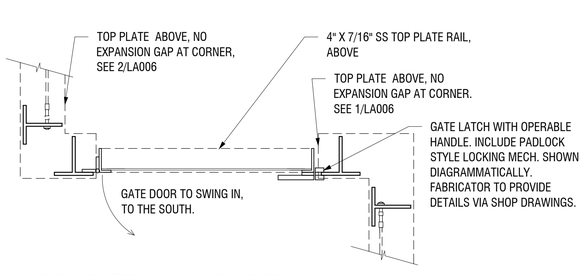
3 TYPICAL GATE SECTION
SCALE: 1 1/2" = 1'-0"



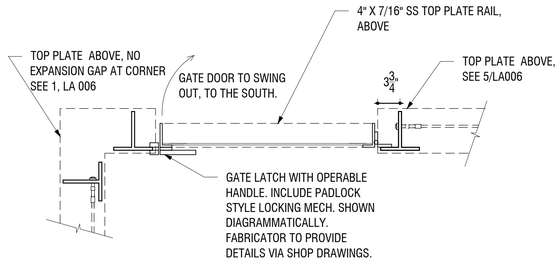
4 ELEVATION ENLARGMENT
SCALE: 1 1/2" = 1'



5 GATE ANGLE ENLARGEMENT
SCALE: 1 1/2" = 1'-0"



6 NORTH GATE PLAN VIEW DETAIL
SCALE: 1"=1'



6 SOUTH GATE PLAN VIEW DETAIL
SCALE: 1"=1'

LICENSED LANDSCAPE ARCHITECT — MARK W. JOHNSON NO. 5513 — STATE OF CALIFORNIA — Signature — 06-27-2022 — Date

CIVITAS

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-08	WBS NO. CP-0021-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS | DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

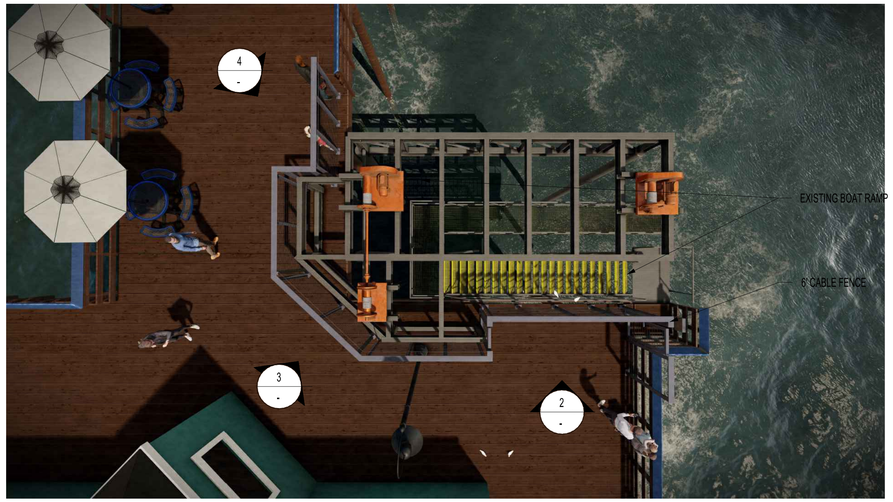
DESIGNED K HOPKINS
DRAWN K HOPKINS
CHECKED S JORDAN

APPROVAL RECOMMENDED — DISTRICT PROJECT MANAGER
APPROVED Chris Brooke 8/10/22 — DISTRICT MANAGER–DESIGN

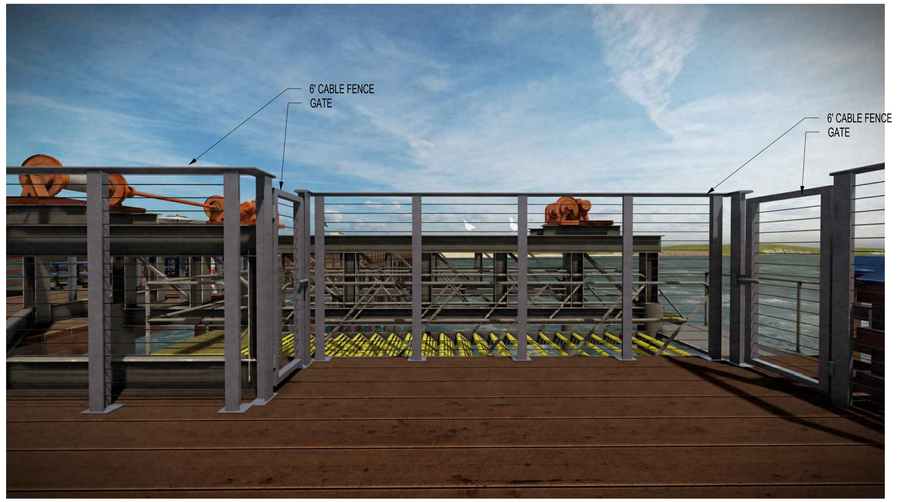
IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2
CABLE FENCE GATE DETAILS

DATE AUGUST, 9, 2022
A/E NO. LA007
SHEET 21 OF 30
DRAWING NO. IB-2022-01
REV. -

ADDITIVE BID ITEM NO. 1

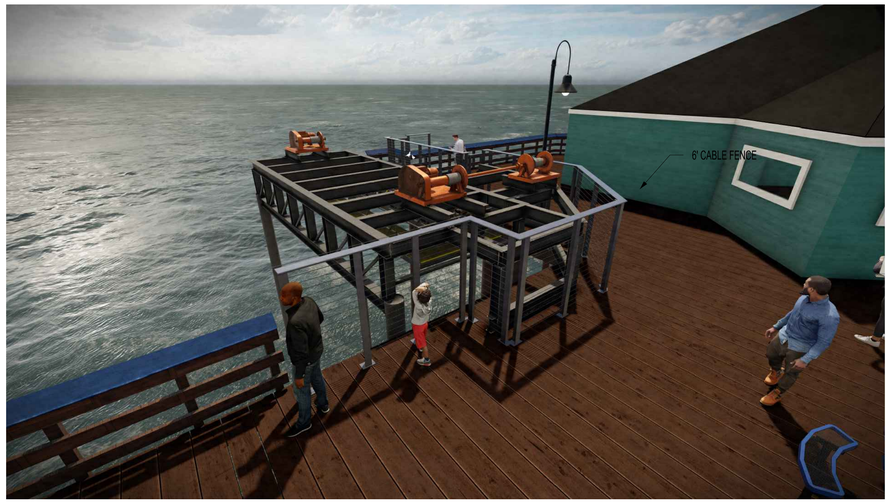


1 CABLE FENCE AERIAL VIEW
SCALE: NTS



2 CABLE FENCE VIEW LOOKING EAST
SCALE: NTS

ILLUSTRATIONS ARE APPROXIMATE AND FOR REFERENCE PURPOSES ONLY



3 CABLE FENCE OBLIQUE VIEW
SCALE: NTS

4 CABLE FENCE VIEW LOOKING SOUTH EAST
SCALE: NTS

LICENSED LANDSCAPE ARCHITECT
MARK W. JOHNSON NO. 5513
STATE OF CALIFORNIA
Signature
06-27-2022
Planned Date
Signed Date

CIVITAS

RECORD DRAWING
REVIEWED BY:
ENGINEER OF RECORD
DATE:

NOTE:
THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-08	WBS NO. CP-0021-01
REFERENCES	
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	INSPECTOR

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED K HOPKINS
DRAWN K HOPKINS
CHECKED S JORDAN

APPROVAL RECOMMENDED
DISTRICT PROJECT MANAGER
APPROVED Chris Brooks 8/10/22
DISTRICT MANAGER-DESIGN

IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2
CABLE FENCE VIEWS

DATE AUGUST, 9, 2022
A/E NO. LA008
SHEET 22 OF 30
DRAWING NO. IB-2022-01
REV. -

ELECTRICAL GENERAL NOTES

1. THE FOLLOWING GENERAL NOTES APPLY TO ALL ELECTRICAL DRAWINGS.

2. THE CONTRACTOR'S BID AND ALL WORK SHALL COMPLY WITH THE 2019 EDITION OF THE CALIFORNIA ELECTRICAL CODE AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL CODES. WHERE THE PLANS SHOWN MORE RESTRICTIVE REQUIREMENTS, THE PLANS SHALL GOVERN. HOWEVER, NOTHING ON THESE PLANS SHALL BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION. WHEN REFERENCES ARE MADE TO SPECIFIC CODE SECTIONS, STANDARDS, GUIDES, AND OTHER SIMILAR REFERENCES, THEY ARE INTENDED TO ADD EMPHASIS TO THE REQUIREMENTS OF THAT PARTICULAR REFERENCE AND ARE NOT INTENDED IN ANY WAY TO RELIEVE THE CONTRACTOR OF THE REMAINING REFERENCES.

3. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND BY SUBMITTING A BID ACCEPTS CONDITIONS UNDER WHICH THEY SHALL BE REQUIRED TO PERFORM THEIR WORK.

4. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF DRAWINGS AND SPECIFICATIONS. THEY SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE ENTIRE SPECIFICATIONS AND DETERMINE THEIR RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM DOING THE WORK IN COMPLETE ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

5. THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH OTHER TRADES AT THE SITE. ANY COST TO ROUTE CONDUIT OTHER THAN AS SHOWN ON THE PLANS SHALL BE INCURRED BY THE CONTRACTOR.

6. WHEREVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, TRANSFORMERS, GROUND FAULT PROTECTION SYSTEM, ETC. (ALL MATERIALS, ARISES ON THE DRAWINGS AND/OR SPECIFICATIONS), THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON DRAWINGS AND/OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER OR ENGINEER.

7. THE ELECTRICAL DRAWINGS DO NOT SHOW ALL OFFSETS, BENDS, FITTINGS, JUNCTION BOXES, PULL BOXES, AND EXPANSION FITTINGS REQUIRED TO MEET FIELD CONDITIONS. DETERMINE ACTUAL MATERIAL AND HARDWARE REQUIREMENTS AND VERIFY ALL DIMENSIONS, EXISTING EQUIPMENT, AND STRUCTURAL MEMBER LOCATIONS BY FIELD INSPECTION.

8. SUBMIT SHOP DRAWINGS AND CATALOG CUTS FOR ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE SPECIFICATIONS.

9. PROVIDE A SET OF AS-BUILT DRAWINGS SHOWING THE LOCATIONS OF ALL UNDERGROUND CONDUITS AND INDICATE ALL CHANGES MADE DURING CONSTRUCTION AND ANY DEVIATIONS FROM THE ELECTRICAL DRAWINGS, IN ACCORDANCE WITH THE SPECIFICATIONS.

10. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED AND LABELED AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.

11. ALL CIRCUIT BREAKERS, FUSES, AND ELECTRICAL EQUIPMENT SHALL HAVE INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT, TO WHICH THEY MAY BE SUBJECTED.

12. UNLESS OTHERWISE NOTED, ALL DEVICES AND EQUIPMENT INSTALLED OUTSIDE OR IN DAMP LOCATIONS SHALL BE WEATHERPROOF WITH MARINE GRADE, CORROSION RESISTANT FINISH. THE FINISH FOR OUTDOOR, WEATHERPROOF, NEMA-3R ENCLOSURES SHALL HAVE ALL COVERS AND DOORS THOROUGHLY CLEANED USING A PHOSPHATE WASH. APPLY A ZINC RICH CORROSION RESISTANT PRIMER AND THEN A POLYESTER POWER COAT SUITABLE FOR MARINE ENVIRONMENT.

13. CONNECTIONS TO DEVICES SUBJECT TO VIBRATION, SUCH AS MOTORS, TRANSFORMERS, AND SENSORS, SHALL BE SHORT LENGTHS OF LIQUIDTIGHT FLEXIBLE STEEL CONDUIT, TERMINATED WITH APPROVED LIQUIDTIGHT METAL FITTINGS AND PROVIDED WITH A SEPARATE GROUND CONDUCTOR INSTALLED WITH THE PHASE CONDUCTORS.

14. UNLESS NOTED OTHERWISE, ALL WIRE SHALL BE COPPER, UL LISTED, RATED FOR 600 VOLTS, THE THHN/THWN-2 AND #12 AWG MINIMUM SIZE. CONDUCTORS LARGER THAN #10 AWG, SHALL BE STRANDED.

15. INSTALL ALL EQUIPMENT, LIGHTING FIXTURE, DEVICES, CONDUIT AND CONDUIT SUPPORTS TO MEET SEISMIC REQUIREMENTS.

16. CONDUIT RUNS SHOWN ARE DIAGRAMMATIC ONLY. INSTALL ALL CONDUITS AND FITTINGS TO SUIT FIELD CONDITIONS.

17. PROVIDE PROPERLY SIZED LUGS AT ALL CIRCUIT BREAKER PANELS, FOR THE CONDUCTORS SHOWN TO CONNECT TO THESE LUGS.

18. SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR, SIZED PER NEC 250.122, SHALL BE PROVIDED, INSTALLED IN THE SAME CONDUIT AS THE CIRCUIT CONDUCTORS, FOR ALL FEEDER AND BRANCH CIRCUITS.

19. PROVIDE LAMINATED TYPE WRITTEN DIRECTORY CARD IN EACH PANEL AND SAFETY SWITCH. IDENTIFY LOAD SERVED BY EACH CIRCUIT BREAKER. PROVIDE LAMINATED PLASTIC NAMEPLATES TO IDENTIFY ALL LOADS SERVED BY EQUIPMENT. IN ADDITION TO CODE REQUIRED NAMEPLATES, CONTRACTOR SHALL PROVIDE PORT OF SAN DIEGO IDENTIFYING NAMEPLATE INFORMATION, WHICH IS PRINTED ON AN APPROPRIATE SURFACE, AND SHALL INSTALL INSIDE THE SWITCHBOARD/PANELBOARD WITH THE FOLLOWING INFORMATION:

    PANEL xxxx (NAME OF PANELBOARD)
    MAIN CIRCUIT OR LUGS ONLY BUS RATING
    VOLTAGE
    FED BY SOURCE
    DATE

20. INSTALL ALL CONDUITS AND WIRES WITH A MINIMUM NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEAD ROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR, AND MEET ALL STRUCTURAL CODE REQUIREMENTS.

21. DO NOT BORE, NOTCH, OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

22. IF EQUIPMENT SUBSTITUTIONS ARE MADE BY THE CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A CONCRETE PAD DESIGNED FOR THAT EQUIPMENT BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA.

23. INTERRUPTION OF EXISTING ELECTRIC SERVICE: DO NOT INTERRUPT ELECTRIC SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS:
    A. NOTIFY OWNER NO FEWER THAN SEVEN (7) DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF ELECTRIC SERVICE.
    B. PROVIDE SCHEDULE OF DOWN TIME (SHUT DOWN PLAN).
    C. DISTRICT WILL NOT BE RESPONSIBLE FOR PROVIDING TEMPORARY POWER FOR CONSTRUCTION PURPOSES.

24. SPLICING SHALL ONLY TAKE PLACE WITHIN A JUNCTION BOX AND WITH A SCOTCHCAST EPOXY SEAL KIT.

DISCONNECT AND OVERCURRENT DEVICES

CIRCUIT BREAKER		SAFETY SWITCHES	
NUMBERS OF POLES	3	NUMBERS OF POLES	3
TRIP (AMPERES)	*	FUSE SIZE (AMPS)	*
FRAME (AMPERES)	100	RATING (AMPERES)	100
I.C. (1000 AMPS)	10	FUSE CLASS (UL)	RK5

* "NA" INDICATES NON-AUTOMATIC C/B
* "NF" INDICATES NON-FUSED SWITCH
* "50" INDICATES TRIP OR FUSE SIZE
* "**" INDICATES FUSE SIZE PER MANUFACTURER'S RECOMMENDATION

ELECTRICAL SYMBOLS

GENERAL SYMBOLS

- DASHED SYMBOL INDICATES EXISTING FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO REMAIN.
- SOLID SYMBOL INDICATES NEW FIXTURE, DEVICE, OUTLET.
- DASHED SYMBOL WITH HATCH INDICATES FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO BE DEMOLISHED.
- SYMBOL WITH "R" INDICATES RELOCATE(D) FIXTURE, DEVICE, OUTLET.
- XE — CONDUIT OR WIRING EXISTING TO REMAIN.
- # — KEY NOTE REFERENCE
- 42,000 — SHORT CIRCUIT CURRENT, AMPS
- A / 3 | 4 — DETAIL/SECTION DESIGNATION; SHEET WHERE DETAIL SECTION OR DETAIL IS SHOWN; SHEET WHERE SECTION OR DETAIL IS USED
- A / E1 — PHOTO NUMBER DESIGNATION; SHEET PHOTO ON
- 3/E39 — DETAIL OR SECTION REFERENCES IN NOTES

BUILDING WIRING & RACEWAY SYSTEMS

- WIRING OR CONDUIT EXPOSED
- WIRING OR CONDUIT CONCEALED IN-DECK
- SURFACE FLUSH — PANELBOARD.
- GROUNDING ELECTRODE
- G — GROUND BAR.
- CB — ENCLOSED CIRCUIT BREAKER.

SINGLE LINE DIAGRAM

- LOW VOLTAGE CIRCUIT BREAKER.
- SPLICE
- SPECIAL RECEPTACLE OUTLET WITH NEMA CONFIGURATION NUMBER AS NOTED.
- PANEL XXXX — PANELBOARD.
- TRANSFORMER - SINGLE LINE DIAGRAM
- CT; CURRENT TRANSFORMER BY SDG&E. NUMBER INDICATES QUANITY.
- △ — 3-PHASE, 3-WIRE DELTA CONNECTION.
- Y — 3-PHASE, 4-WIRE WYE CONNECTION (UNGROUNDED NEUTRAL)
- Ⓜ — KILOWATT HOUR METER

LUMINAIRES

SUBSCRIPT ADJACENT TO LIGHTING LUMINAIRE INDICATE:
1,2,3 etc. = CIRCUIT NUMBERS
a,b,c etc. = SWITCH IDENTIFICATION
NL = NIGHT/SECURITY LIGHT

- # — LUMINAIRE SCHEDULE REFERENCE
- LED LUMINAIRE, SURFACE MOUNTED UNDER CANOPY AND HANDRAIL.

ELECTRICAL ABBREVIATIONS

A OR AMP	AMPERE
AIC	AMPS INTERRUPTING CAPACITY
C	CONDUIT
C/B	CIRCUIT BREAKER
CKT	CIRCUIT
CU	COPPER
E	ELECTRICAL CONDUIT
(E)	EXISTING
G	GROUND
GFI	GROUND FAULT INTERRUPTER
HP	HORSEPOWER
HZ	HERTZ
J-BOX OR JB	JUNCTION BOX
KAIC	THOUSAND AMPS INTERRUPTING CAPACITY
KVA	KILOVOLT AMP
KV	KILOVOLT
KW	KILOWATT
LED	LIGHT-EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
M	MOTOR
MAX	MAXIMUM
MSB	MAIN SWITCHBOARD
(N)	NEW
N/A	NOT APPLICABLE
NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
P	POLE
POC	POINT OF CONNECTION
POD	POINT OF DISCONNECTION
PH	RED, GREEN, BLUE
RGB	PHASE
SCH	SCHEDULE
TBD	TO BE DETERMINED
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORY
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT AMPERE
W	WATT OR WIRE
X OR EXIST.	EXISTING (EQUIPMENT)

SHEET LIST TABLE

BSE ENGINEERING, INC.
9903 BUSINESS PARK AVE, SUITE 104
SAN DIEGO, CA 92131
TEL: 858.800.6000
FAX: 858.800.6001
BSE PROJECT NO. 22-217-1023

REGISTERED PROFESSIONAL ENGINEER ALAN J. BROWN No. 13353 Exp. 09-30-22 ELECTRICAL STATE OF CALIFORNIA

RECORD DRAWING
REVIEWED BY:
PROJECT-MANAGER/ENGINEER
DATE

NOTE: THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07 WBS NO. EC-0008-01
REFERENCES -
PROJECT ENGINEER -
CONTRACTOR -
CONSTRUCTION STARTED -
CONSTRUCTION COMPLETED -
COST - INSPECTOR -

REVISIONS | DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED A. BROWN
DRAWN J. CARNAHAN
CHECKED B. WOUTERS

APPROVAL RECOMMENDED
X. XXXX
PROJECT MANAGER
APPROVED Chris Brooke 8/10/22
X. XXXX
ENGINEERING/CONSTRUCTION DEPARTMENT MANAGER

SAN DIEGO UNIFIED PORT DISTRICT

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

ELECTRICAL LEGENDS, GENERAL NOTES

DATE JUNE 27, 2022
A/E NO. E-001
SHEET 23 OF 30
DRAWING NO. IB-2022-01
REV. -

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LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	MOUNTING	MODEL	INPUT WATTS	VOLTS
A	⌒	LED RGB	FLEXIBLE LED STRIP, COLOR-CHANGING IP-67/IP-68 RATED. BENDS AROUND CONTOURS AND TIGHT CURVES. UL LISTED FOR WET LOCATIONS. DIMMABLE THROUGH DMX CONTROLLER. 120 DEGREE (DOME) BEAM ANGLE. REFER TO DRAWINGS FOR FIXTURE LENGTH.	SURFACE	CORE LIGHTING: LNT-45-D-RGBW27-24V-IP67EF-HW3 (OR APPROVED EQUAL) DRIVER: PSHK-150W-24V-UNV (OR APPROVED EQUAL) CONTROLLER: RGB-DMX-4C-RJ45(OR APPROVED EQUAL)	4.4	120V 1P 2W
B	———	LED 2700K	LED STRIP LIGHT MOUNTED TO UNDERSIDE OF WOOD HANDRAIL. IP67 RATED AND UL LISTED FOR WET LOCATIONS. CLEAR LENS AND EXTRUDED ALUMINUM HOUSING. HOUSING DIMENSIONS 0.47" H X 0.36" W. REFER TO DRAWINGS FOR FIXTURE LENGTH.	SURFACE	CALIFORNIA ACCENT LIGHTING: LLED8000-STL-CL-3.6-10V-2.7K-IP67 (OR APPROVED EQUAL) DRIVER: DRV-E SERIES (OR APPROVED EQUAL)	3.6	120V 1P 2W

1 **LUMINAIRE SCHEDULE**
SCALE: NO SCALE

BSE ENGINEERING, INC.
9903 BUSINESS PARK AVE, SUITE 104
SAN DIEGO, CA 92131
TEL: 858.800.6000
FAX: 858.800.6001
BSE PROJECT NO. 22-217-1023

REGISTERED PROFESSIONAL ENGINEER
ALAN J. BROWN
No. 13353
EXP. 09-30-22
ELECTRICAL
STATE OF CALIFORNIA

RECORD DRAWING
REVIEWED BY:
PROJECT-MANAGER/ENGINEER
DATE

NOTE:
THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07 WBS NO. EC-0008-01
REFERENCES -
PROJECT ENGINEER -
CONTRACTOR -
CONSTRUCTION STARTED -
CONSTRUCTION COMPLETED -
COST - INSPECTOR -

REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED A. BROWN
DRAWN J. CARNAHAN
CHECKED B. WOUTERS

APPROVAL RECOMMENDED
X. XXXX
PROJECT MANAGER
APPROVED
Chris Brooke 8/10/22
X. XXXX
ENGINEERING/CONSTRUCTION DEPARTMENT MANAGER

SAN DIEGO UNIFIED PORT DISTRICT

IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2

LUMINAIRE SCHEDULE

DATE JUNE 27, 2022
A/E NO. E-002
SHEET 24 OF 30
DRAWING NO. IB-2022-01
REV. -

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STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name:	Report Page: (Page 1 of 8)
Project Address:	Date Prepared: 6/6/2022

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Illuminated Hardscape Area (ft²)	665
02	Climate Zone	7			
03	Outdoor Lighting Zone per Title 24 Part 1 §10.114 or as designated by Authority Having Jurisdiction (AHJ):				
☐	LZ-0: Very Low - Undeveloped Parkland	☐ LZ-2: Moderate - Rural Areas	☐	LZ-4: High - Must be reviewed by CA Energy Commission for Approval	
☐	LZ-1: Low - Developed Parkland	☒ LZ-3: Moderately High - Urban Areas			

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2L for alterations.

My Project Consists of:

01	02		
☐ New Lighting System	Must Comply with Allowances from §140.7		
☒ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?	◉ Yes	○ No
03	04	05	
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method	
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%			

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name:	Report Page: (Page 2 of 8)
Project Address:	Date Prepared: 6/6/2022

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through I. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2L											Compliance Results		
01		02		03		04		05	OR	06	07		08	09
General Hardscape Allowance §140.7(d)1 (See Table I)	+	Per Application §140.7(d)2 (See Table J)	+	Sales Frontage §140.7(d)2 (See Table K)	+	Ornamental §140.7(d)2 (See Table L)	+	Per Specific Area §140.7(d)2 (See Table M)		Existing Power Allowance §141.0(b)2L (See Table N)	= **Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**
391.63	+	---	+	---	+	---	+	108	OR	---	= 499.63	≥	411.2	COMPLIES
Cutoff Compliance (See Table G for Details)														N/A
Controls Compliance (See Table H for Details)														COMPLIES with Exceptional Conditions

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name:	Report Page: (Page 3 of 8)
Project Address:	Date Prepared: 6/6/2022

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with §140.7 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included).

Designed Wattage:

01 Name or Item Tag	02 Complete Luminaire Description		03 Watts per luminaire[1, 2]	04 How is Wattage determined	05 Total number luminaires[2]	06 Luminaire Status[3]	07 Excluded per §140.7(a)	08 Design Watts	09 Cutoff Req. > 6,200 initial lumen output §130.2(b)[4]	10 Field Inspector Pass	10 Field Inspector Fail
A	TYPE A - 4.4W LED STRIP LIGHT	☐ Linear	4.4	CEC Default	46	New	☐	202.4	NA: < 6200 lumens	☐	☐
B	TYPE B - 3.6W LED STRIP LIGHT	☐ Linear	3.6	CEC Default	58	New	☐	208.8	NA: < 6200 lumens	☐	☐
							Total Design Watts:	411.2			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b)

[1] *FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)*
[2] *For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.*
[3] *Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.*
[4] *Compliance with mandatory cutoff requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by §130.2(b)*

G. CUTOFF REQUIREMENTS (BUG)

This section does not apply to this project.

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name:	Report Page: (Page 4 of 8)
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H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Mandatory Controls

01 Area Description	02 Shut-Off §130.2(c)1	03 Auto-Schedule §130.2(c)2	04 Motion Sensor §130.2(c)3	05 Field Inspector Pass	05 Field Inspector Fail
HANDRAIL LIGHTING	Photocontrol	Yes	Exempt*	☐	☐
CANOPY LIGHTING	Photocontrol	Yes	Exempt*	☐	☐

* NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c)

HANDRAIL LIGHTING	EXCEPTION 2 to Section 130.2(c)3
CANOPY LIGHTING	EXCEPTION 2 to Section 130.2(c)3

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name:	Report Page: (Page 5 of 8)
Project Address:	Date Prepared: 6/6/2022

I. LIGHTING POWER ALLOWANCE (per §140.7)

This table includes areas using allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lose it" Allowances are per Table 140.7-B . Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

01				
☒ General Hardscape Allowance Table I (below)	"Use it or lose it" Allowance (select all that apply) (select all that apply)			
	☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☒ Per Specific Area Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 0, 1 & 4)
This section does not apply to this project.
Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 2 & 3)

02 Area Description	03 Surface Type	04 Area Wattage Allowance (AWA) Illuminated Area (ft²)	05 Area Wattage Allowance (AWA) Allowed Density (W/ft²)	06 Area Wattage Allowance (AWA) Area Allowance (Watts)	07 Area Wattage Allowance (AWA) Perimeter Length (lf)	08 Area Wattage Allowance (AWA) Allowed Density (W/lf)	9 Area Wattage Allowance (AWA) Linear Allowance (Watts)	10 Total General AWA + LWA (Watts)
BEACH PIER	Asphalt	665	0.03	16.625	100	0.4	25	41.625
						Initial Wattage Allowance for Entire Site (Watts):		350
						Total General Hardscape Allowance (Watts):		391.625

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name:	Report Page: (Page 6 of 8)
Project Address:	Date Prepared: 6/6/2022

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This table includes areas using the wattage allowance per specific area from Table 140.7-B . More than one specific area allowance may be taken in a single project, if applicable. However, multiple specific area allowances may not be taken for the exact same area on the site.

01 Area Description	02 Specific Area Type per Table 140.7-B	03 CALCULATED ALLOWANCE (Watts) Specific Area (ft²)[1]	04 Allowed Density (W/ft²)	05 Extra Allowance (Watts)	06 DESIGN WATTS Luminaire Name or Item Tag	07 Watts per Luminaire	08 # of Luminaires	09 Design Watts	10 Additional Allowance (Watts)
CANOPY	NonSalesCanopy	400	0.27	108	A	4.4	46	202.4	108
							Total Design Watts for this Area:	202.4	
							Total Allowance (Watts) All Areas:		108

[1] *FOOTNOTES: See Table 140.7-B for rules for calculating the specific areas (ft² for these additional lighting allowances.*
[2] *For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 08 instead of number of luminaires.*

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Yes	No	Form/Title	Field Inspector Pass	Field Inspector Fail
◉	○	NRCI-LTO-01-E - Must be submitted for all buildings	☐	☐
◉	○	NRCI-LTO-02-E- Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐

BSE Engineering, Inc.
9903 Business Park Ave, Suite 104
San Diego, CA 92131
TEL: 858.800.6000
FAX: 858.800.6001
BSE PROJECT NO. 22-217-1023

REGISTERED PROFESSIONAL ENGINEER — ALAN J. BROWN — No. 13353 — Exp. 08-30-22 — ELECTRICAL — STATE OF CALIFORNIA

RECORD DRAWING
REVIEWED BY:
PROJECT-MANAGER/ENGINEER
DATE

NOTE:
THIS DRAWING MAY BE A REDUCED SCALE PRINT OF THE ORIGINAL DRAWING. UTILIZE GRAPHIC SCALES TO VERIFY IF DRAWING IS A REDUCTION, AND ADJUST SCALES ACCORDINGLY TO THE GRAPHIC SCALES SHOWN.

SPEC NO. 2022-07	WBS NO. EC-0008-01		
REFERENCES -			
PROJECT ENGINEER -			
CONTRACTOR -			
CONSTRUCTION STARTED -			
CONSTRUCTION COMPLETED -			
COST -	INSPECTOR -	REVISIONS	DATE / APPROVED

PORT of SAN DIEGO — Waterfront of Opportunity

DESIGNED	A. BROWN
DRAWN	J. CARNAHAN
CHECKED	B. WOUTERS

APPROVAL RECOMMENDED
X. XXXX
PROJECT MANAGER
APPROVED
Chris Brooks 8/10/22
X. XXXX
ENGINEERING/CONSTRUCTION DEPARTMENT MANAGER

SAN DIEGO UNIFIED PORT DISTRICT

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

TITLE 24 LIGHTING COMPLIANCE FORMS-1

DATE	JUNE 27, 2022
A/E NO.	E-003
SHEET	25 OF 30
DRAWING NO.	IB-2022-01
REV.	-

K:\Projects\Moffat & Nichol - 217\22-1023 IB Pier Enhancements\Dwgs\CAD v2018\Elec\22-217-1023-E-003.dwg / Jul 06, 2022 - 2:45pm / epotts

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name:	Report Page:	(Page 7 of 8)
Project Address:	Date Prepared:	6/6/2022

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Yes	No	Form/Title	Field Inspector	
			Pass	Fail
●	○	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	☐	☐

Registration Number:
Registration Date/Time:
Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
Report Version: 2019.1.003
Schema Version: rev 20200601
Report Generated: 2022-06-06 14:17:48

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name:	Report Page:	(Page 8 of 8)
Project Address:	Date Prepared:	6/6/2022

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company: BSE Engineering, Inc.	Signature Date: 2022-06-06
Address: 9903 Businesspark Ave. Suite 104	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Diego CA 92131	Phone: 858-800-6000

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Alan Brown	Responsible Designer Signature:
Company: BSE Engineering, Inc.	Date Signed: 2022-06-06
Address: 9903 Businesspark Ave. Suite 104	License: E13353
City/State/Zip: San Diego CA 92131	Phone: 858-800-6030

Registration Number:
Registration Date/Time:
Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
Report Version: 2019.1.003
Schema Version: rev 20200601
Report Generated: 2022-06-06 14:17:48

BSE Engineering, Inc.
9903 Business Park Ave, Suite 104
San Diego, CA 92131
TEL: 858.800.6000
FAX: 858.800.6001
BSE Project No. 22-217-1023

REGISTERED PROFESSIONAL ENGINEER ALAN J. BROWN No. 13353 Exp. 09-30-22 ELECTRICAL STATE OF CALIFORNIA

RECORD DRAWING
REVIEWED BY:
PROJECT-MANAGER/ENGINEER
DATE

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SPEC NO. 2022-07 WBS NO. EC-0008-01
REFERENCES -
PROJECT ENGINEER -
CONTRACTOR -
CONSTRUCTION STARTED -
CONSTRUCTION COMPLETED -
COST - INSPECTOR -

REVISIONS | DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED A. BROWN
DRAWN J. CARNAHAN
CHECKED B. WOUTERS

APPROVAL RECOMMENDED
X. XXXX
PROJECT MANAGER
APPROVED
Chris Brooke 8/10/22
X. XXXX
ENGINEERING/CONSTRUCTION DEPARTMENT MANAGER

SAN DIEGO UNIFIED PORT DISTRICT

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

TITLE 24 LIGHTING COMPLIANCE FORMS-2

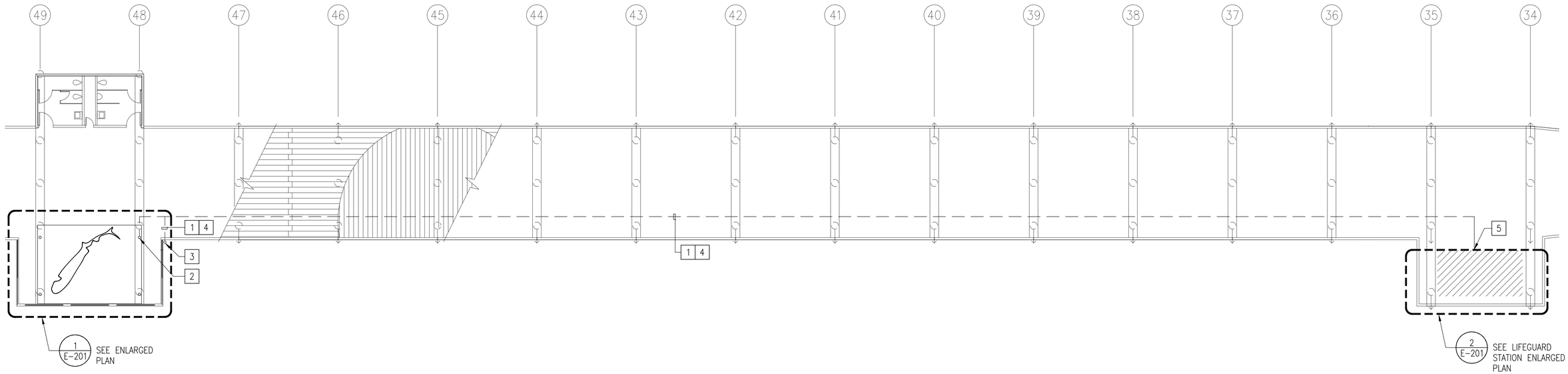
DATE JUNE 27, 2022
A/E NO. E-004
SHEET 26 OF 30
DRAWING NO. IB-2022-01
REV. -

K:\Projects\Moffat & Nichol - 217\22-1023 IB Pier Enhancements\Dwgs\CAD v2018\Elec\22-217-1023-E-004.dwg / Jul 06, 2022 - 2:45pm / epotts

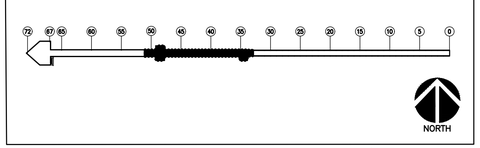
KEY NOTES

1. ROUTE 1"C PVC SCHEDULE 80 CONDUIT UNDERNEATH PIER DECKING BETWEEN LIFEGUARD STATION AND CANOPY LOCATION FOR THE FOLLOWING:
   - SHARK LIGHTING
   - CANOPY PERIMETER LIGHTING
   - HANDRAIL LIGHTING

   PROVIDE CONDUIT SUPPORTS AND HANGERS AS NEEDED.
2. ROUTE CONDUIT AND LUMINAIRE WIRING UP COLUMN TO ROOF OF CANOPY STRUCTURE. SEE DETAIL 1/E-201 FOR CANOPY LIGHTING PLAN.
3. ROUTE CONDUIT AND LUMINAIRE WIRING TO CONCEALED JUNCTION BOX FOR HANDRAIL LUMINAIRES.
4. PROVIDE 2#12, 1#12G, 3/4"C.
5. UTILIZE EXISTING PANEL INSIDE LIFEGUARD TOWER FOR NEW WORK.



KEY PLAN
NOT TO SCALE



BSE ENGINEERING, INC.
9903 BUSINESS PARK AVE, SUITE 104
SAN DIEGO, CA 92131
TEL: 858.800.6000
FAX: 858.800.6001
BSE PROJECT NO. 22-217-1023

REGISTERED PROFESSIONAL ENGINEER
ALAN J. BROWN
No. 13353
Exp. 09-30-22
ELECTRICAL
STATE OF CALIFORNIA

1 ELECTRICAL SITE PLAN
SCALE: 3/32" = 1'-0"

NORTH

0 2' 4' 6' 8' 10' 15' 25'
SCALE: 3/32"=1'-0"

N
NORTH SAN DIEGO BAY
W
E
S

RECORD DRAWING
REVIEWED BY:

PROJECT-MANAGER/ENGINEER

DATE

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PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	A. BROWN
DRAWN	J. CARNAHAN
CHECKED	B. WOUTERS

APPROVAL RECOMMENDED
X. XXXX
PROJECT MANAGER

APPROVED
Chris Brooke 8/10/22
X. XXXX
ENGINEERING/CONSTRUCTION DEPARTMENT MANAGER

SAN DIEGO UNIFIED PORT DISTRICT

IMPERIAL BEACH PIER
ENHANCEMENTS - PHASE 2

ELECTRICAL SITE PLAN

DATE	JUNE 27, 2022
A/E NO.	E-101
SHEET	27 OF 30
DRAWING NO.	IB-2022-01
REV.	-

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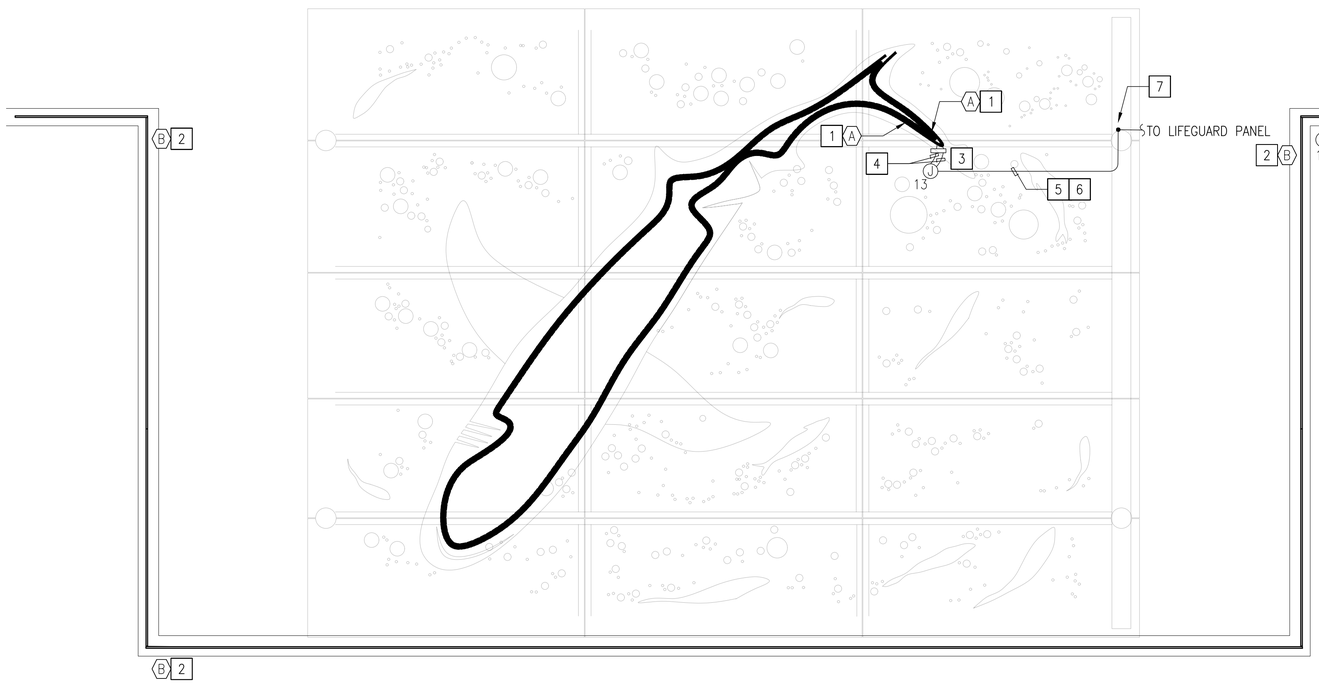
KEY NOTES

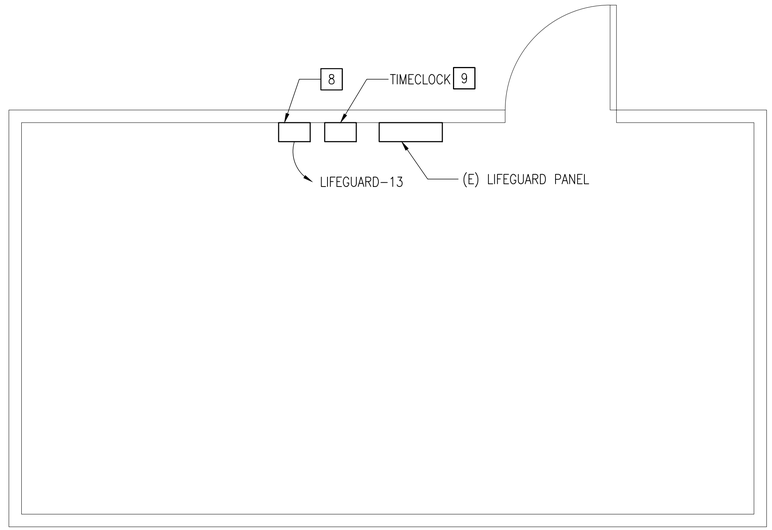
1. PROVIDE CONTINUOUS RUN OF TYPE A LUMINAIRES TO BE MOUNTED IN BETWEEN DROP DOWN SHARK ACCENT PIECE AND CANOPY. MOUNTING SHALL FOLLOW THE SHAPE OF THE SHARK. PROVIDE JUNCTION BOXES, DRIVERS, AND ANY OTHER LIGHTING ACCESSORIES CONCEALED ABOVE THE CANOPY WITHOUT CROSSING OVER THE CANOPY DESIGN OPENINGS. REFER TO LUMINAIRE SCHEDULE ON SHEET E-002 FOR ADDITIONAL FIXTURE INFORMATION.
2. PROVIDE CONTINUOUS RUN OF TYPE B LUMINAIRE ON THE UNDERSIDE OF THE HANDRAIL. REFER TO 3/E-501 AND 4/E-501 FOR MOUNTING. PROVIDE STAINLESS STEEL JUNCTION BOXES, DRIVERS, AND ANY OTHER LIGHTING ACCESSORIES CONCEALED ALONG THE UNDERSIDE OF THE HANDRAIL. REFER TO LUMINAIRE SCHEDULE ON SHEET E-002 FOR ADDITIONAL FIXTURE INFORMATION.
3. PROVIDE REMOTE DRIVER IN STAINLESS STEEL WEATHERPROOF ENCLOSURE WITH WATER-TIGHT FITTINGS.
4. PROVIDE PVC COATED FLEXIBLE CONDUIT FOR CONNECTIONS.
5. ROUTE CONDUIT ABOVE THE CANOPY WITHOUT CROSSING OVER THE CANOPY DESIGN OPENINGS.
6. PROVIDE 2#10, 1#10G, 3/4"C.
7. FEED TRAVELING UP THE POLE FROM LIFEGUARD STATION.
8. PROVIDE 120V POWER TO DMX CONTROLLER RGB-SDE3 FOR TYPE A LUMINAIRES IN LOCKABLE ENCLOSURE. CONTROLLER SHALL HAVE SCENE PROGRAM CAPABILITY. REFER TO DETAIL 2/E-501 FOR WIRING DIAGRAM.
9. PROVIDE TIME CLOCK FOR TYPE B LUMINAIRES. REFER TO DETAIL 1/E-501 FOR WIRING DIAGRAM.



1 ENLARGED PLANS
SCALE: 1/2" = 1'-0"

NORTH

0 1/2' 1' 2' 4'
SCALE: 1/2"=1'-0"



2 ENLARGED LIFEGUARD STATION PLAN
SCALE: 1/2" = 1'-0"

NORTH

0 1/2' 1' 2' 4'
SCALE: 1/2"=1'-0"

BSE ENGINEERING, INC.
9903 BUSINESS PARK AVE, SUITE 104
SAN DIEGO, CA 92131
TEL: 858.800.6000
FAX: 858.800.6001
BSE PROJECT NO. 22-217-1023

REGISTERED PROFESSIONAL ENGINEER ALAN J. BROWN No. 13353 Exp. 09-30-22 ELECTRICAL STATE OF CALIFORNIA

RECORD DRAWING
REVIEWED BY:
PROJECT-MANAGER/ENGINEER
DATE

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SPEC NO. 2022-07	WBS NO. EC-0008-01		
REFERENCES -			
PROJECT ENGINEER -			
CONTRACTOR -			
CONSTRUCTION STARTED -			
CONSTRUCTION COMPLETED -			
COST -	INSPECTOR -	REVISIONS	DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED	A. BROWN
DRAWN	J. CARNAHAN
CHECKED	B. WOUTERS

APPROVAL RECOMMENDED
X. XXXX
PROJECT MANAGER
APPROVED
Chris Brooke 8/10/22
X. XXXX
ENGINEERING/CONSTRUCTION DEPARTMENT MANAGER

SAN DIEGO UNIFIED PORT DISTRICT

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

ENLARGED PLANS

DATE	JUNE 27, 2022
A/E NO.	E-201
SHEET	28 OF 30
DRAWING NO.	IB-2022-01
REV.	-

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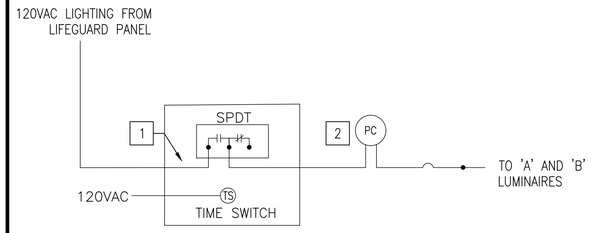
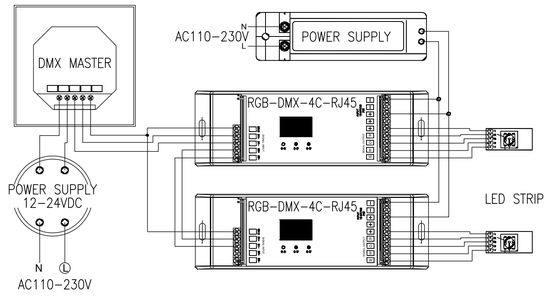


DETAIL NOTES:

1. ELECTRONIC TIME SWITCH, TORK MODEL #DWZ200B TIME SWITCH OR EQUAL. PROGRAM AS DIRECTED BY OWNER. TIME SWITCH SHALL BE TWO ZONE ASTRONOMICAL LIGHTING CONTROL TYPE FOR ON AND OFF CONTROL OF LIGHTING CIRCUITS.
2. PROVIDE 120V PHOTOCELL CONTROLLERS WITH 1/2" THREADED NIPPLE. MOUNTED TO 4" X 4" JBOX MOUNTED ON ROOF.

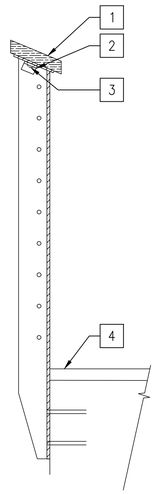
EXTERIOR LIGHTING CONTROL DIAGRAM

SCALE: NTS | 1



LUMINAIRE A CONTROL WIRING DIAGRAM

SCALE: NTS | 2

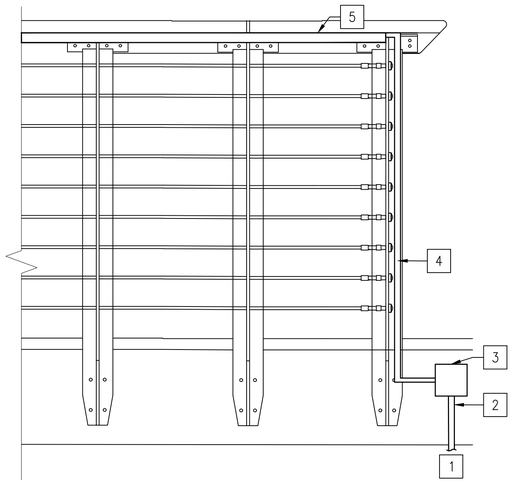


DETAIL NOTES:

1. HANDRAIL
2. B TYPE LUMINAIRE AND MOUNTING HARDWARE ON THE UNDERSIDE OF THE HANDRAIL.
3. 3/4"C COMING FROM JUNCTION BOX.
4. EXISTING DECK

LIGHTING MOUNTED TO HANDRAIL- SIDE VIEW

SCALE: NTS | 3



DETAIL NOTES:

1. CONDUIT FROM UNDERSIDE OF DECK.
2. 1" PVC SCHEDULE 80 CONDUIT.
3. STAINLESS STEEL MARINE GRADE JUNCTION BOX.
4. PVC COATED RIGID CONDUIT.
5. SURFACE MOUNTED B TYPE LUMINAIRE ON THE UNDERSIDE OF THE HANDRAIL.

LIGHTING MOUNTED TO HANDRAIL - FRONT VIEW

SCALE: NTS | 4

BSE ENGINEERING, INC.
9903 BUSINESS PARK AVE, SUITE 104
SAN DIEGO, CA 92131
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FAX: 858.800.6001
BSE PROJECT NO. 22-217-1023

REGISTERED PROFESSIONAL ENGINEER ALAN J. BROWN No. 13353 Exp. 09-30-22 ELECTRICAL STATE OF CALIFORNIA

RECORD DRAWING
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PROJECT-MANAGER/ENGINEER
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SPEC NO. 2022-07 WBS NO. EC-0008-01
REFERENCES -
PROJECT ENGINEER -
CONTRACTOR -
CONSTRUCTION STARTED -
CONSTRUCTION COMPLETED -
COST - INSPECTOR -

REVISIONS | DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED: A. BROWN
DRAWN: J. CARNAHAN
CHECKED: B. WOUTERS

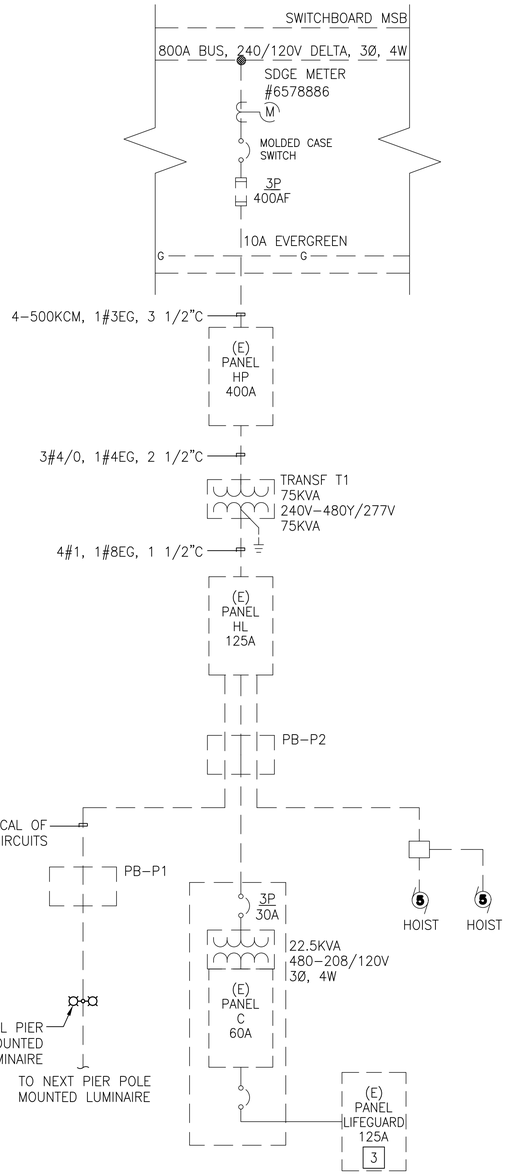
APPROVAL RECOMMENDED
X. XXXX
PROJECT MANAGER
APPROVED
Chris Brooke 8/10/22
X. XXXX
ENGINEERING/CONSTRUCTION DEPARTMENT MANAGER

SAN DIEGO UNIFIED PORT DISTRICT

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

ELECTRICAL DETAILS

DATE JUNE 27, 2022
A/E NO. E-501
SHEET 29 OF 30
DRAWING NO. IB-2022-01
REV. -



1 SINGLE LINE DIAGRAM
SCALE: NO SCALE

GENERAL NOTES

1. CONTRACTOR TO VERIFY PANEL LOADS AND CIRCUITRY PRIOR TO BEGINNING WORK.

KEY NOTES

1 CONTRACTOR TO PROVIDE REVISED PANEL DIRECTORY UPON COMPLETION.

2 PROVIDE 20A, 1–POLE CIRCUIT BREAKER. MATCH EXISTING MANUFACTURER AND KAIC RATING OF THE PANELBOARD.

3 UTILIZE EXISTING PANEL FOR NEW WORK.

1 PANEL LIFEGUARD

ROOM LIFEGUARD STATION | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 125 | MAIN BKR 100
FED FROM PANEL C | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD VA A	LOAD VA B	LOAD VA C
1	100/3	MAIN	0			2	20/1	EXISTING LOAD	0		
3	|			0		4	20/1	EXISTING LOAD		0	
5	|				0	6	20/1	EXISTING LOAD			0
7	20/1	EXISTING LOAD	0			8	20/1	EXISTING LOAD	0		
9	20/1	EXISTING LOAD		0		10	20/1	EXISTING LOAD		0	
11	20/1	EXISTING LOAD			0	12	20/1	EXISTING LOAD			0
13	20/1	CANOPY AND HANDRAIL LIGHTING	500			14	–/1	PROVISION	0		
15	–/1	PROVISION		0		16	–/1	PROVISION		0	
17	–/1	PROVISION			0	18	–/1	PROVISION			0
								TOTAL CONNECTED VA BY PHASE	500	0	0
								TOTAL CONNECTED AMPS BY PHASE	4	0	0

	CONN VA	CALC VA			CONN VA	CALC VA	
LIGHTING	500	625	(125%)	CONTINUOUS	0	0	(125%)
LARGEST MOTOR	0	0	(N/A)	HEATING	0	0	(N/A)
OTHER MOTORS	0	0	(100%)	COOLING	0	0	(N/A)
RECEPTACLES	0	0	(50%>10)	NONCONTINUOUS	0	0	(100%)
KITCHEN EQUIP	0	0	(N/A)	DIVERSE	0	0	(N/A)
				METERED DEMAND	0	0	(125%)
				TOTAL KVA	500	625	
				BALANCED 3–PHASE AMPS		2	

2 PANEL SCHEDULE
SCALE: NO SCALE

BSE ENGINEERING, INC.
9903 BUSINESS PARK AVE, SUITE 104
SAN DIEGO, CA 92131
TEL: 858.800.6000
FAX: 858.800.6001
BSE PROJECT NO. 22-217-1023

REGISTERED PROFESSIONAL ENGINEER ALAN J. BROWN No. 13353 EXP. 09-30-22 ELECTRICAL STATE OF CALIFORNIA

RECORD DRAWING
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CONTRACTOR -
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CONSTRUCTION COMPLETED -
COST - INSPECTOR -

REVISIONS | DATE / APPROVED

PORT of SAN DIEGO
Waterfront of Opportunity

DESIGNED A. BROWN
DRAWN J. CARNAHAN
CHECKED B. WOUTERS

APPROVAL RECOMMENDED
X. XXXX
PROJECT MANAGER
APPROVED Chris Brooke 8/10/22
X. XXXX
ENGINEERING/CONSTRUCTION DEPARTMENT MANAGER

SAN DIEGO UNIFIED PORT DISTRICT

IMPERIAL BEACH PIER ENHANCEMENTS - PHASE 2

SINGLE LINE DIAGRAM

DATE JUNE 27, 2022
A/E NO. E-601
SHEET 30 OF 30
DRAWING NO. IB-2022-01
REV. -

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BID SCHEDULE

I/WE AGREE TO FURNISH ALL LABOR, EQUIPMENT AND MATERIALS AND PERFORM ALL THE WORK REQUIRED FOR **IMPERIAL BEACH PIER ENHANCEMENTS PHASE 2, SAN DIEGO, CALIFORNIA**, IN ACCORDANCE WITH THESE SPECIFICATIONS AND DRAWINGS PREPARED THEREFOR, FOR THE PRICES LISTED BELOW:

BASE BID					
Item No.	**Item**	**Unit of Measure**	**Estimated Quantity**	**Unit Price (In Figures)**	**Total (In Figures)**
1	GENERAL CONSTRUCTION	LS	1	$_____	$_____
2	LONGSHOREMAN INSURANCE	LS	1	$_____	$_____
3	CONSTRUCTION BEST MANAGEMENT PRACTICES (BMP) PLAN	LS	1	$_____	$_____
4	DEMOLITION AND REMOVAL	LS	1	$_____	$_____
5	CABLE RAILING	LS	1	$_____	$_____
6	CANOPY STEEL FRAMING	LS	1	$_____	$_____
7	CANOPY STAINLESS STEEL PANELS	LS	1	$_____	$_____
8	PIER TIMBERWORK	LS	1	$_____	$_____
9	ELECTRICAL AND LIGHTING	LS	1	$_____	$_____
10	ALLOWANCE FOR RELATED WORK	AL	1	$10,000	$10,000
				TOTAL BASE BID:	$_____

ADDITIVE BID ITEM NO. 1 – PIER END FENCING REPLACEMENT (SEE ADDENDUM NO.1)

Item No.	**Item**	**Unit of Measure**	**Estimated Quantity**	**Unit Price (In Figures)**	**Total (In Figures)**
1	PIER END FENCING REPLACEMENT	LS	1	$_____	$_____
				TOTAL ADDITIVE BID ITEM NO. 1:	$_____

TOTAL BASE BID + ADDITIVE BID ITEM NO. 1:	$_____

GENERAL BID SCHEDULE NOTES:

THE PRICING SHOWN ABOVE SHALL REMAIN VALID FOR A PERIOD OF 120 CALENDAR DAYS FROM THE BID OPENING DATE.

Bids are to be submitted for the entire Work. The amount of the bid for comparison purposes will be the **TOTAL BASE BID PLUS ADDITIVE BID ITEM NO. 1**. The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in the electronic bid system.

The Contract prices paid for the work shall include full compensation for all taxes which the Contractor is required to pay, whether imposed by federal, state, or local government, including, without being limited to, federal excise tax. No tax exemption certificate nor any document designed to exempt the Contractor from payment of any tax will be furnished to the Contractor by the District, as to any tax on labor, services, materials, transportation, or any other items furnished pursuant to the Contract.

The San Diego Unified Port District retains the right to award on the basis of bids received or to reject any or all bids.

No conditional proposals will be accepted.

*******END OF BID SCHEDULE*******