

**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: Crystal Pier Maintenance and Repair Project  
Certification Number R9-2014-0014  
WDID: 9000002868**

Reg. Meas. ID: 394533  
Place ID: 802570  
Party ID: 537145  
Person ID: 528889

**APPLICANT: City of San Diego  
525 B Street, Suite 750  
San Diego, CA 92101**

**ACTION:**

<input type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input checked="" type="checkbox"/> Order for Technically-conditioned Certification	<input type="checkbox"/> Waiver of Waste Discharge Requirements
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004-DWQ

**PROJECT DESCRIPTION**

An application dated January 6, 2014 was submitted by the City of San Diego (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed Crystal Pier Maintenance and Repair Project (Project). The Applicant has also applied for a Clean Water Act Section 404 permit from the United States Army Corps of Engineers for the Project (Nationwide Permit No. 3).

The Project is located within the City of San Diego, San Diego County, California at 4500 Ocean Blvd. The Project center reading is located at latitude 32.7962 and longitude -117.2569. The Applicant has paid all required fees for this Certification in the amount of \$1,097.00. On July 24, 2014, the San Diego Water Board provided 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 proposes to complete substantial structural repairs on Crystal Pier. The proposed work includes the repair of piles that have deteriorated structurally and the replacement of one missing pile. Pile repair will involve cutting and removing the existing pile to a point 6 inches beyond the extent of visible deterioration. This may include in-water work to remove existing deteriorated piles to a point where they are structurally sound for repair. The remaining pile stub will be cut flat and drilled to allow for a threaded rod for pinning the new pile timber to the pile stub. A fiberglass jacket will be fitted around the pile connection joint and the jacket will be filled with Hydro-Ester Marine Epoxy. The fiberglass jacket will

contain the liquid epoxy at the pile, allowing for final curing inside the tightly sealed jacket. The repair will also involve new bracing and "T" straps to connect the piles to the pile cap beams. Scaffolding will be installed beneath the pier, damaged bracing will be removed, and new bracing installed with new bolts. Braces that run across multiple piles will be replaced in sections from pile to pile, as needed.

The Project may also include the removal and off-site storage of the cottages currently located on top of the pier. As part of this work, utility service lines (water, gas, electrical) currently connected to the joists below the decking will need to be removed and replaced.

The Applicant has submitted final plans that include Best Management Practices (BMPs) to control discharges of pollutants and debris from the Project site. The Project is anticipated to occur during winter and spring to avoid summer season peak beach use. If the Project continues into summer, work will be restricted to under pier structure activities. Dredging is not permitted as part of the Project's repair activities.

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- 1. Definitions**
- 2. Project Figures and Plans**

## 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. R9-2014-0014 (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/go\\_wdr401regulated\\_projects.pdf](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_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 *Water Quality Control Plan, Ocean Waters of California* (Ocean Plan), 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).
- 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.
- H. Inspection and Entry.** The Applicant must allow the San Diego Water Board or the State Water Resources Control Board (State Water 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 the 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 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](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

### III. 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 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. **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.
- G. **Beneficial Use Protection.** The Applicant must take all necessary measures to protect the beneficial uses of waters of 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 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.A of this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.

- H. **BMP Implementation.** At a minimum, the Applicant must implement the BMPs described in the *John S. Meek Company General Environmental Procedures* manual.

#### IV. PROJECT IMPACTS

- A. **Project Impacts.** Unavoidable Project impacts to the Pacific Ocean must not exceed 0.0017 acre (75 square feet).

#### V. MONITORING AND REPORTING REQUIREMENTS

- A. **Final Project Completion 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, no bigger than 11"X17".

- B. **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.

- C. **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](mailto: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. R9-2014-0014:PIN 802570  
2375 Northside Drive, Suite 100  
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF) format, 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. R9-2014-0014:PIN 802570.



**D. 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.

**E. 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. 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.

- B. Hazardous Substance Discharge.** Except for a discharge which is in compliance with this Certification, 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.
- C. Oil or Petroleum Product Discharge.** Except for a discharge which is in compliance with this Certification, 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.
- D. 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.
- E. 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.**

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.

- F. **Discharge Commencement.** The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

## VII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. The City of San Diego is the lead agency under the California Environmental Quality Act (Public Resources Code section 21000, et seq., (CEQA)), and promulgated a Notice of Exemption on October 8, 2013 under CEQA Guidelines Title 14, California Code of Regulations. The City of San Diego has determined the project is categorically exempt from CEQA pursuant to CEQA Guidelines section 15301 (Existing Facilities).
- 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 pursuant to CEQA Guidelines section 15301 (Existing Facilities), 15302 (Replacement/ Reconstruction), and 15331 (Historic Resources Restoration/Rehabilitation). The Project consists of maintenance of existing structures to restore structural stability, maintain public safety, does not expand the existing use of the structures, and will not have a significant effect on the environment.
- 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

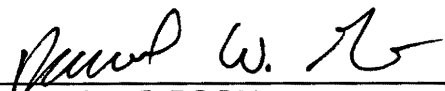
Alan Monji, Environmental Scientist  
Telephone: (619) 521-3968  
Email: [Alan.Monji@waterboards.ca.gov](mailto:Alan.Monji@waterboards.ca.gov)

## IX. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Crystal Pier Maintenance and Repair Project** (Certification Number R9-2014-0014) 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. R9-2014-0014 issued on January 14, 2015.

  
\_\_\_\_\_  
DAVID W. GIBSON  
Executive Officer  
San Diego Water Board

14 Jan. 2015  
Date

# ATTACHMENT 1

## 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.

City of San Diego  
Crystal Pier Maintenance and Repair Project  
Certification No. R9-2014-0014

**ATTACHMENT 2**  
**PROJECT FIGURES AND PLANS**

Project Location Map - Figure 3.1 & 3.2  
Project Vicinity Map - Figure 1  
Project Plans – T-1 - S-3.5



### 3.0 Location Map

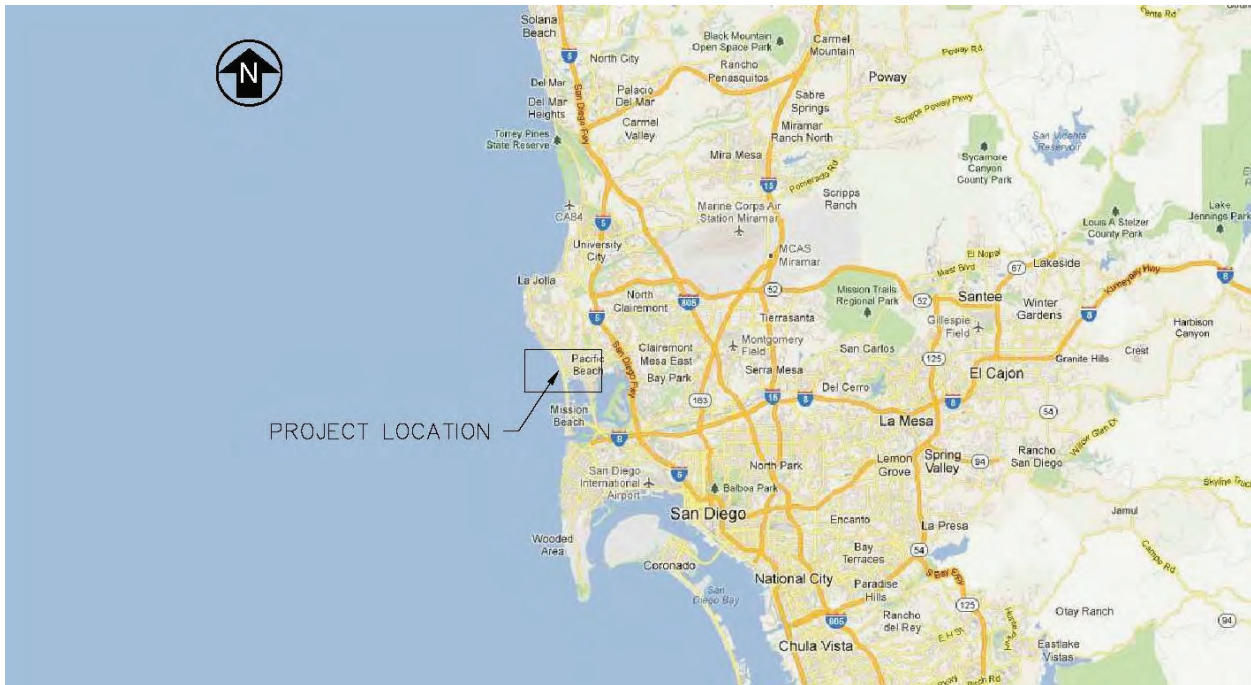


Figure 3.1 – Area map of project site.

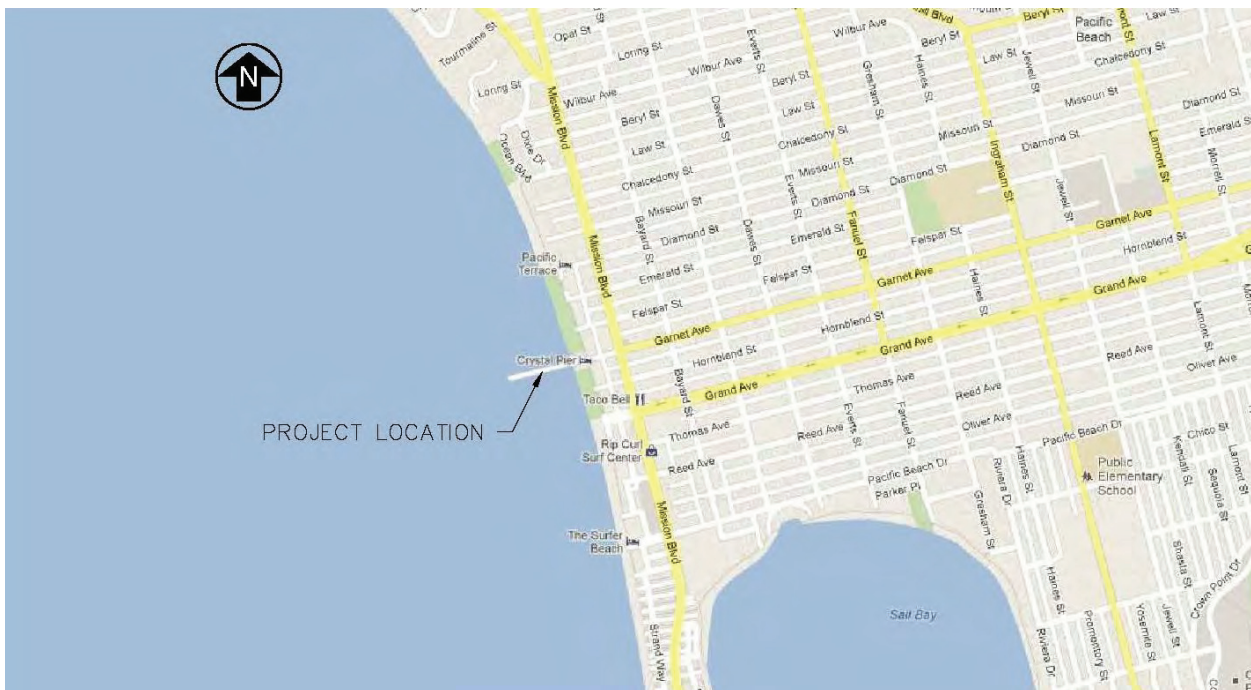
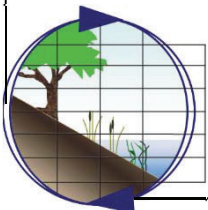


Figure 3.2 – Close location map of project site.





**Crystal Pier Vicinity Map**  
Crystal Pier Maintenance and Repair Project

Figure  
1

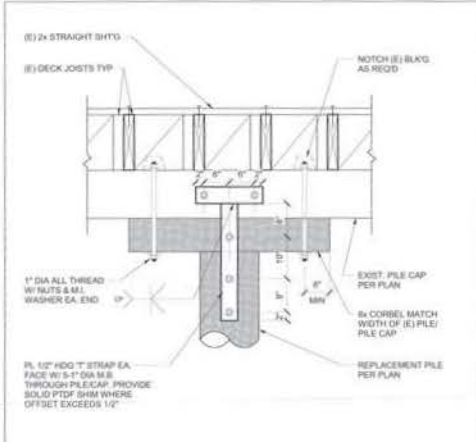




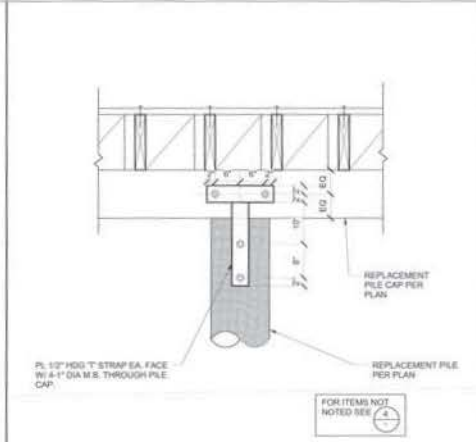




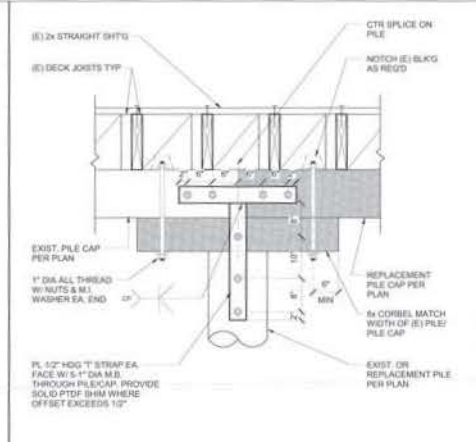




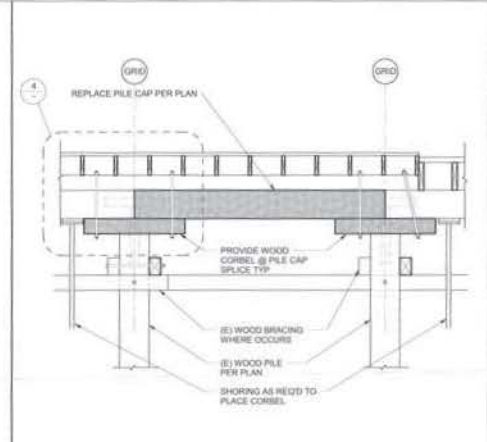
10 TYPICAL PILE/PILE CAP CONN - NO PILE CAP SPLICE WITH CORBEL  
1" x 1'-0"



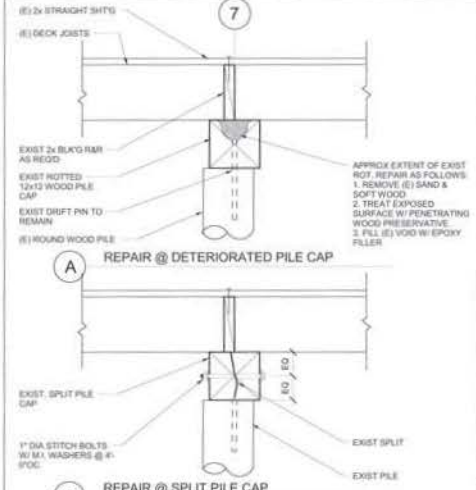
7 TYPICAL PILE/PILE CAP CONN - NO PILE CAP SPLICE W/O CORBEL  
1" x 1'-0"



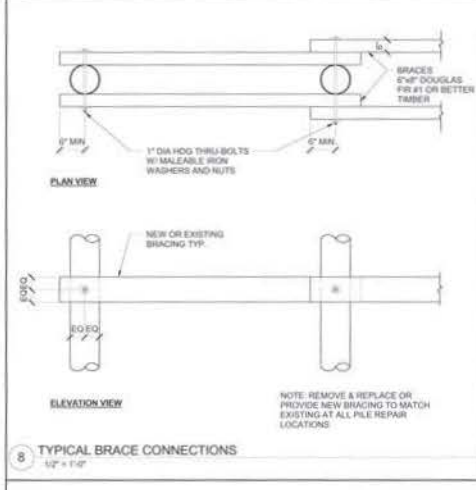
4 TYPICAL PILE/PILE CAP CONNECTION @ PILE CAP SPLICE  
1" x 1'-0"



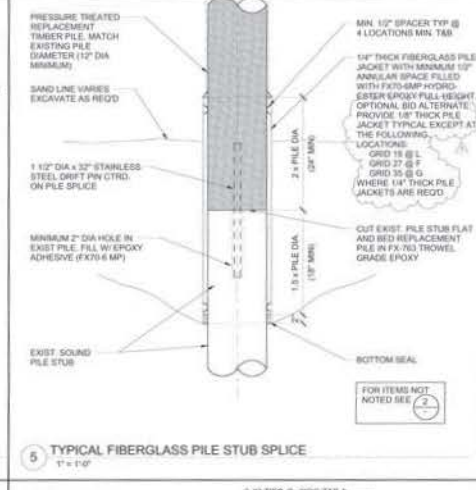
1 TYPICAL PILE CAP REPLACEMENT  
1/2" x 1'-0"



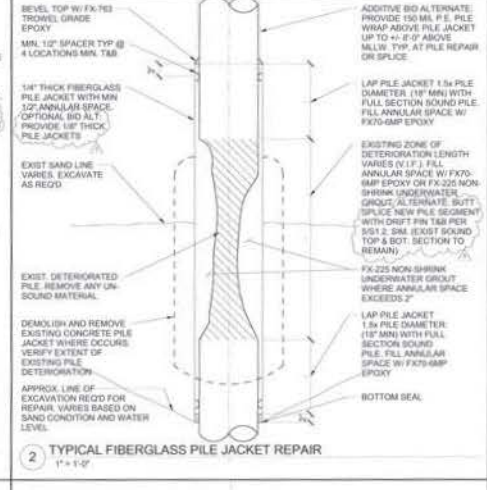
A REPAIR @ SPLIT PILE CAP  
1" x 1'-0"



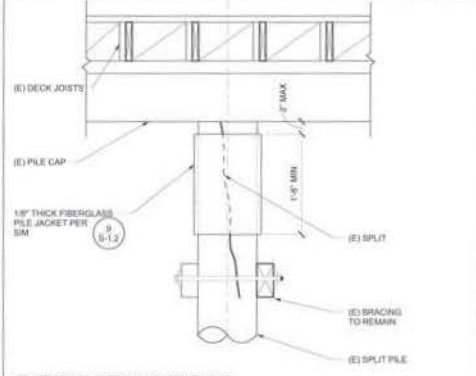
8 TYPICAL BRACE CONNECTIONS  
1/2" x 1'-0"



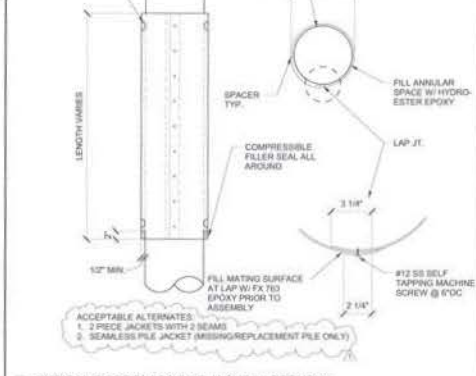
5 TYPICAL FIBERGLASS PILE STUB SPLICE  
1" x 1'-0"



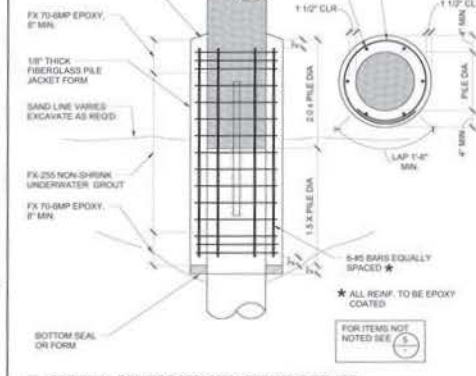
2 TYPICAL FIBERGLASS PILE JACKET REPAIR  
1" x 1'-0"



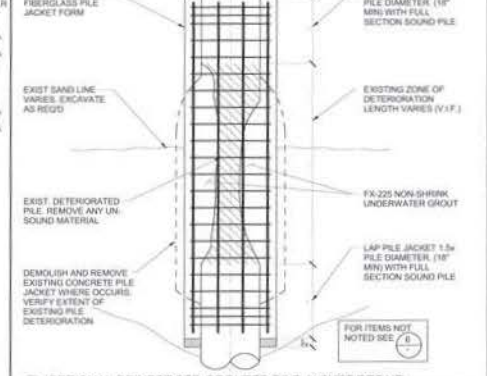
B REPAIR @ (E) SPLIT PILE  
1" x 1'-0"



9 TYPICAL FIBERGLASS PILE JACKET ASSEMBLY  
1" x 1'-0"



6 OPTIONAL REINFORCED GROUTED STUB SPLICE  
1" x 1'-0"

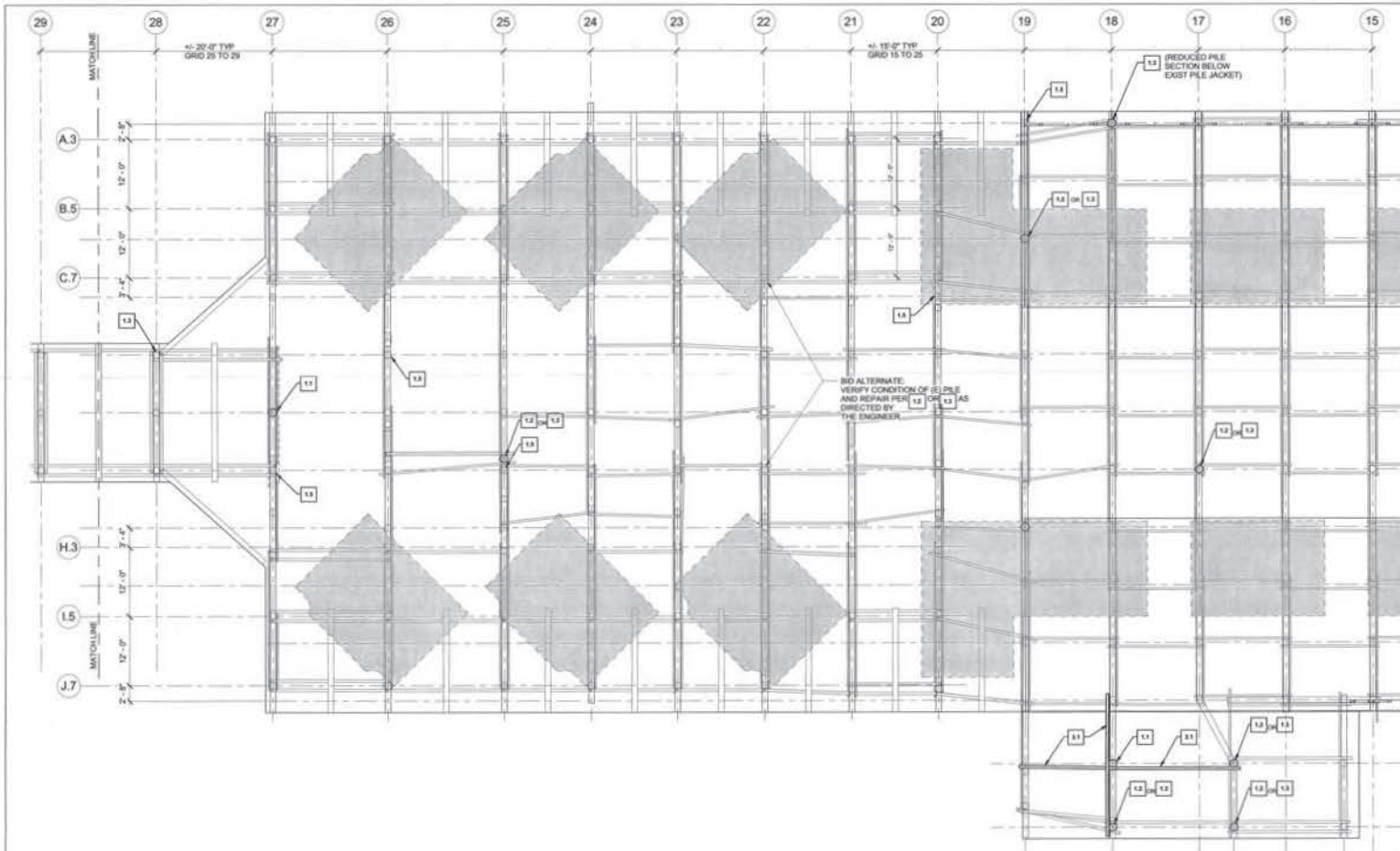


3 OPTIONAL REINFORCED GROUTED PILE JACKET REPAIR  
1" x 1'-0"

NO.	REVISION	DATE
1	ISSUED FOR PERMITS	08/11/10
2	FOR PERMITS	08/11/10
3	FOR PERMITS	08/11/10
4	FOR PERMITS	08/11/10
5	FOR PERMITS	08/11/10
6	FOR PERMITS	08/11/10
7	FOR PERMITS	08/11/10
8	FOR PERMITS	08/11/10
9	FOR PERMITS	08/11/10
10	FOR PERMITS	08/11/10
11	FOR PERMITS	08/11/10
12	FOR PERMITS	08/11/10





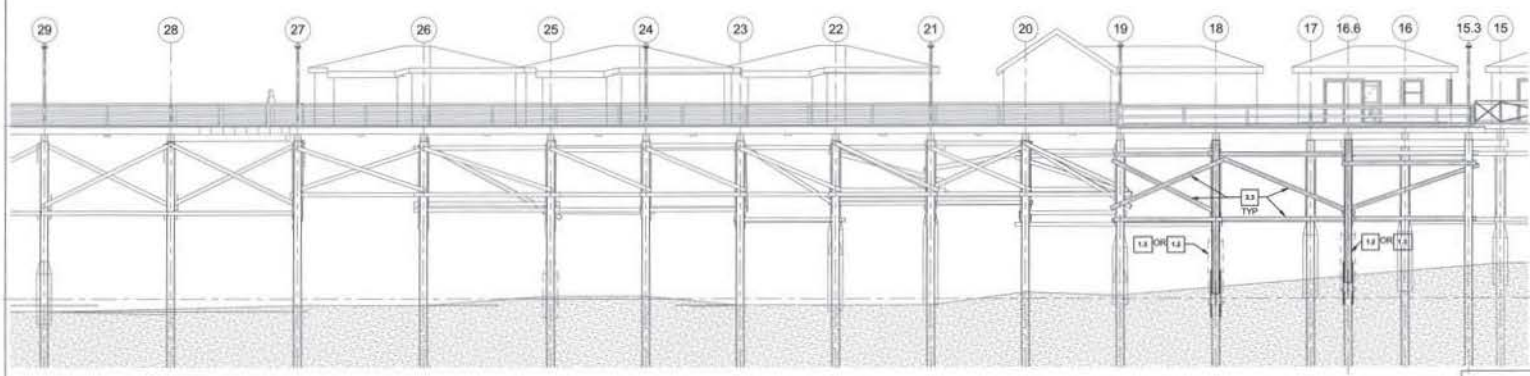


- PLAN NOTES**
- FOR GENERAL NOTES AND REPAIR DESCRIPTION NARRATIVES SEE SHEET 51.1
  - FOR TYPICAL REPAIR DETAILS SEE SHEET 51.2
  - TYPICAL EXISTING PIER FRAMING (NOTE: ACTUAL MEMBER SIZE AND SPACING MAY VARY DUE TO PAST REPAIRS AND/OR MODIFICATIONS.)
    - a. PIER DECKING: 2X STRAIGHT SHEATHING
    - b. JOISTS:
      - i. MAIN DRIVING AREA (BENTS 1-27): 3X14 AT 18" O.C.
      - ii. BELOW COTTAGE/SERVICED DECKS: 2X10 AT 18" O.C.
    - c. FISHING PIER (BENTS 27-51): 3X14 AT 20" O.C.
    - d. PILE CAPS: 12X12 OR 16X16 TIMBERS
    - e. WOOD PILES: 12" TO 14" DIA. (TAPERED), VARIES
    - f. BRACING: VARIES
  - MEMBER LOCATIONS AND SIZES SHOWN IN THESE DRAWINGS ARE BASED ON AVAILABLE DOCUMENTATION AND ON LIMITED FIELD INVESTIGATION. THESE REPAIR PLANS ARE INTENDED TO REPRESENT THE GENERAL AND TYPICAL EXISTING CONDITIONS AND REPAIRS. EFFORTS MUST BE MADE TO BE REASONABLY ACCURATE IN REPRESENTING EXISTING MEMBER SIZES AND LOCATIONS. HOWEVER, DUE TO THE ABOVE LIMITATIONS AND ONGOING WEAR AND TEAR ON THE PIER, THESE PLANS MAY NOT REFLECT EXISTING CONDITIONS AT THE TIME OF CONSTRUCTION IN ALL LOCATIONS. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
  - REPAIRS INCLUDED UNDER THIS PERMIT ARE INDICATED BY KEY NOTE. SEE KEY NOTES BELOW AND KEY NOTE DESCRIPTIONS OF WORK ON SHEET 51.1 FOR MORE INFORMATION.

- KEYNOTES**  
FOR DETAILED DESCRIPTIONS OF WORK FOR EACH KEY NOTE SEE SHEET 51.1
- PILE REPAIRS:**
    - 1.11 REPLACE EXISTING MISSING PILE. - SEE 5/5-1.2, 5/5-1.2.
    - 1.12 REPLACE EXISTING DAMAGED/DETERIORATED PILE. - SEE 5/5-1.2, 5/5-1.2.
    - 1.13 REPAIR EXISTING DETERIORATED/DAMAGED PILE. - SEE 2/5-1.2, 3/5-1.2.
    - 1.14 REPAIR EXISTING SPLIT PILE. - SEE 1/5-1.2
    - 1.15 REMOVE EXISTING ABANDONED (HANGING) PILE.
  - PILE CAP REPAIRS:**
    - 2.1 REPLACE EXISTING DETERIORATED PILE CAP. - SEE 1/5-1.2
    - 2.2 REPAIR EXISTING DETERIORATED PILE CAP. - SEE 11A/5-1.2
    - 2.3 REPAIR EXISTING SPLIT PILE CAP. - ADD 1" DIA BITCH BOLTS WITH M.I. WASHERS AT 4'-0" OC. SEE 11B/51.2
  - BRACE REPAIRS:**
    - 3.1 REPLACE EXISTING MISSING/DAMAGED BRACE. - SEE 5/5-1.2
    - 3.2 REMOVE EXISTING DAMAGED BRACE SEGMENT.
    - 3.3 REMOVE & REINSTALL OR REPLACE EXISTING BRACING AS REQUIRED AT PILE REPAIR.

- PLAN LEGEND**
- [Symbol: Vertical line with top cap] INDICATES EXISTING PILE CAP
  - [Symbol: Vertical line with top cap and hatched area] INDICATES REPAIRED PILE CAP
  - [Symbol: Circle with dot] INDICATES EXISTING PILE
  - [Symbol: Circle with dot and hatched area] INDICATES REPAIRED PILE
  - [Symbol: Horizontal line with vertical tick] INDICATES EXISTING UPPER LEVEL BRACING. SEE BENT ELEVATIONS FOR MORE BRACING INFORMATION.
  - [Symbol: Horizontal line with vertical tick and hatched area] INDICATES NEW OR REPLACED BRACING
  - [Symbol: Shaded area] INDICATES APPROXIMATE LOCATIONS OF EXISTING COTTAGE ABOVE.
- ELEVATION LEGEND**
- [Symbol: Vertical line with top cap] INDICATES EXISTING PILE TO REMAIN
  - [Symbol: Vertical line with top cap and hatched area] INDICATES REPAIRED SECTION OF PILE
  - [Symbol: Vertical line with top cap and hatched area, with a break symbol] INDICATES PILE BUTT SPlice PER DETAIL 5/51.2 OR 6/51.2
  - [Symbol: Vertical line with top cap and hatched area, with a jacket symbol] INDICATES PILE JACKET REPAIR PER DETAIL 2/51.2 OR 3/51.2
  - [Symbol: Horizontal line with vertical tick] INDICATES EXISTING BRACING.
  - [Symbol: Horizontal line with vertical tick and hatched area] INDICATES NEW OR REPLACED BRACING.
  - [Symbol: Vertical line with top cap and hatched area, with a jacket symbol] INDICATES EXISTING CONCRETE PILE JACKET REPAIR TO REMAIN. NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.
  - [Symbol: Shaded area] INDICATES EXISTING WOOD FRAMED COTTAGES CONSTRUCTED ON PIER. NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.

1 PIER FRAMING PLAN - BENT 15-28  
1/8" = 1'-0"



2 PIER SOUTH ELEVATION - BENT 15-28  
1/8" = 1'-0"



3 KEY PLAN  
1" = 100'-0"







NO.	REVISION	DATE

DRAWN BY: TBS  
 CHECKED BY: JBS  
 APPROVED BY: JBS  
 SCALE: As Indicated  
 DATE: 11/01  
 FILE DATE: 6/26/14  
 SHEET NO: 01

**PLAN NOTES**

- FOR GENERAL NOTES AND REPAIR DESCRIPTION NARRATIVES SEE SHEET S1.1
- FOR TYPICAL REPAIR DETAILS SEE SHEET S1.2
- TYPICAL EXISTING PIER FRAMING (NOTE: ACTUAL MEMBER SIZE AND SPACING MAY VARY DUE TO PAST REPAIRS AND/OR MODIFICATIONS.)
  - PIER DECKING: 2X STRAIGHT SHEATHING
  - JOISTS: 2X14 AT 16" O.C.
  - BELOW COTTAGE/SPIRIVATE DECK: 2X10 AT 16" O.C.
  - FISHING PIER (BENTS 27 - 51): 2X14 AT 20" O.C.
  - PILE CAPS: 12X12 OR 14X14 TIMBERS
  - WOOD PILES: 12" TO 14" DIA. (TAPERED), VARIES
  - BRACING: VARIES
- MEMBER LOCATIONS AND SIZES SHOWN IN THESE DRAWINGS ARE BASED ON AVAILABLE DOCUMENTATION AND ON LIMITED FIELD INVESTIGATION. THESE REPAIR PLANS ARE INTENDED TO REPRESENT THE GENERAL AND TYPICAL EXISTING CONDITIONS AND REPAIRS. EFFORTS HAVE BEEN MADE TO BE REASONABLY ACCURATE IN REPRESENTING EXISTING MEMBER SIZES AND LOCATIONS. HOWEVER, DUE TO THE ABOVE LIMITATIONS AND ONGOING WEAR AND TEAR ON THE PIER, THESE PLANS MAY NOT REFLECT EXISTING CONDITIONS AT THE TIME OF CONSTRUCTION IN ALL LOCATIONS. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
- REPAIRS INCLUDED UNDER THIS PERMIT ARE INDICATED BY KEY NOTE. SEE KEY NOTES BELOW AND KEY NOTE DESCRIPTIONS OF WORK ON SHEET S1.1 FOR MORE INFORMATION.

**KEYNOTES**  
FOR DETAILED DESCRIPTIONS OF WORK FOR EACH KEY NOTE SEE SHEET S1.1

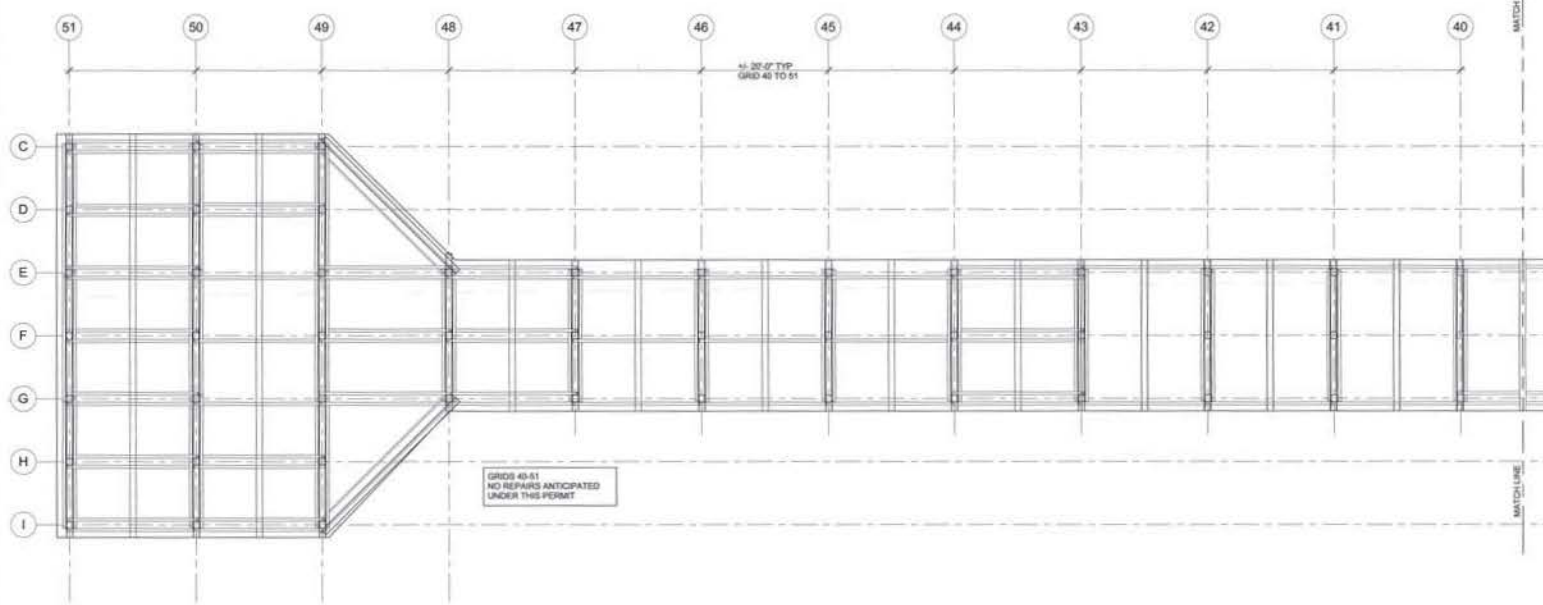
- PILE REPAIRS:**
  - 1.1 REPLACE EXISTING MISSING PILE. - SEE 55-1.2, 65-1.2.
  - 1.2 REPLACE EXISTING DAMAGED/DETERIORATED PILE. - SEE 55-1.2, 65-1.2
  - 1.3 REPAIR EXISTING DETERIORATED/DAMAGED PILE. - SEE 55-1.2, 35-1.2
  - 1.4 REPAIR EXISTING SPLIT PILE. - SEE 125-1.2
  - 1.5 REMOVE EXISTING ABANDONED (HANGING) PILE.
- PILE CAP REPAIRS:**
  - 2.1 REPLACE EXISTING DETERIORATED PILE CAP. - SEE 115-1.2
  - 2.2 REPAIR EXISTING DETERIORATED PILE CAP. - SEE 11A5-1.2
  - 2.3 REPAIR EXISTING SPLIT PILE CAP. - ADD 1" DIA. STEEL BOLTS WITH M1. WASHERS AT 4'-0" OC. SEE 11B5-1.2
- BRACE REPAIRS:**
  - 3.1 REPLACE EXISTING MISSING/DAMAGED BRACE. - SEE 65-1.2
  - 3.2 REMOVE EXISTING DAMAGED BRACE SEGMENT.
  - 3.3 REMOVE & REINSTALL OR REPLACE EXISTING BRACING AS REQUIRED AT PILE REPAIR.

**PLAN LEGEND**

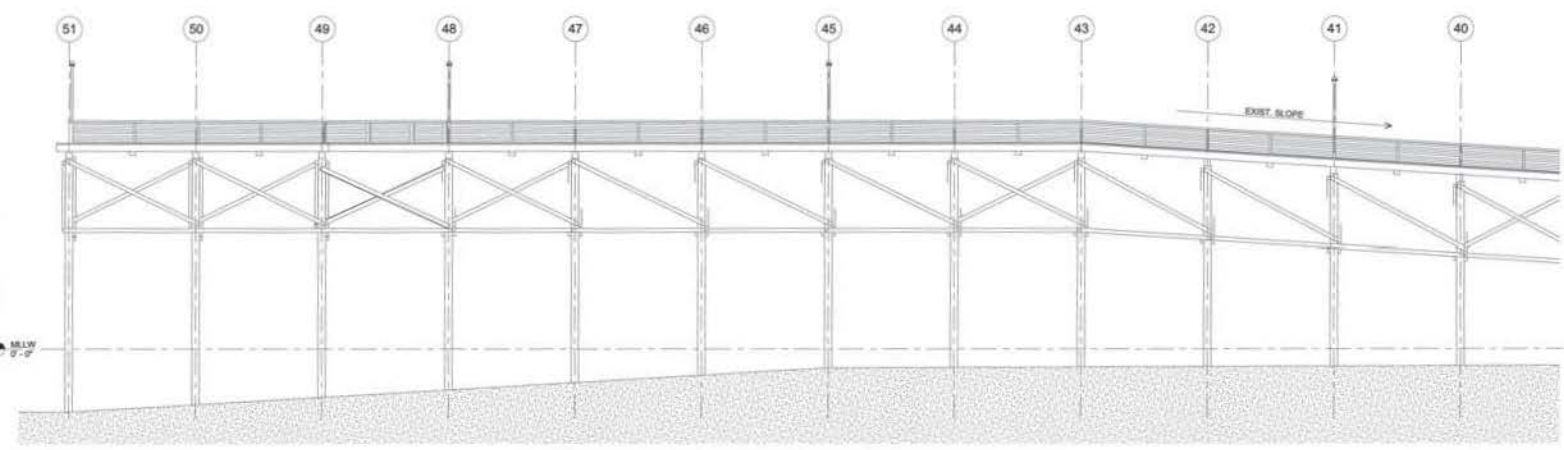
- INDICATES EXISTING PILE CAP
- INDICATES REPAIRED PILE CAP
- INDICATES EXISTING PILE
- INDICATES REPAIRED PILE
- INDICATES EXISTING UPPER LEVEL BRACING. SEE BENT ELEVATIONS FOR MORE BRACING INFORMATION
- INDICATES NEW OR REPLACED BRACING
- INDICATES APPROXIMATE LOCATIONS OF EXISTING COTTAGE ABOVE

**ELEVATION LEGEND**

- INDICATES EXISTING PILE TO REMAIN
- INDICATES REPLACED SECTION OF PILE
- INDICATES PILE BUTT SPICE PER DETAIL 551.2 OR 651.2
- INDICATES PILE JACKET REPAIR PER DETAIL 351.2 OR 351.2
- INDICATES EXISTING BRACING
- INDICATES NEW OR REPLACED BRACING
- INDICATES EXISTING CONCRETE PILE JACKET REPAIR TO REMAIN. NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.
- INDICATES EXISTING WOOD FRAMED COTTAGES CONSTRUCTED ON PIER. NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.

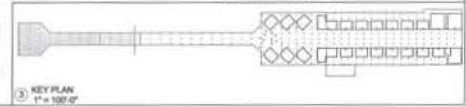


1 PIER FRAMING PLAN - BENT 40-51  
1/8" = 1'-0"



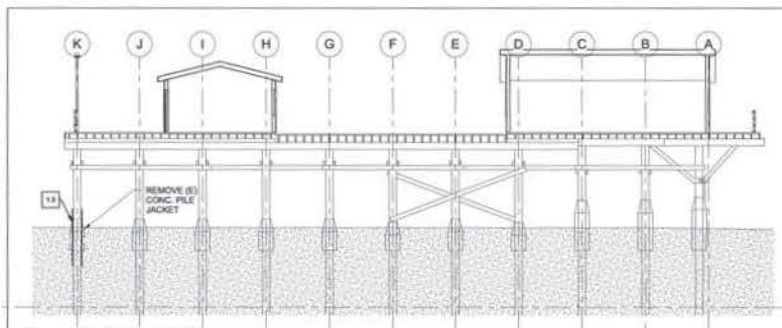
2 PIER SOUTH ELEVATION - BENT 40-51  
1/8" = 1'-0"

SHEET PROVIDED FOR REFERENCE ONLY  
NO REPAIRS ANTICIPATED  
UNDER THIS PERMIT

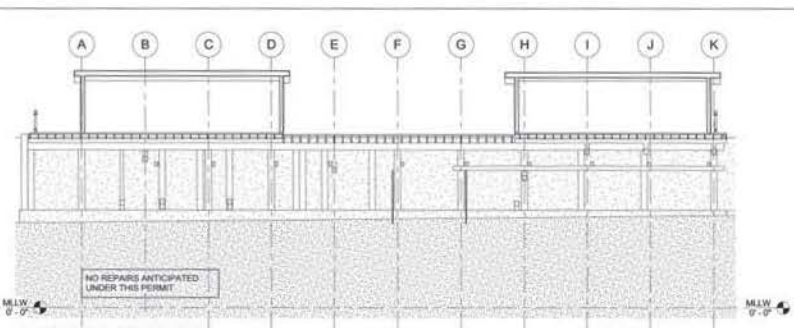


3 KEY PLAN  
1" = 100' 0"

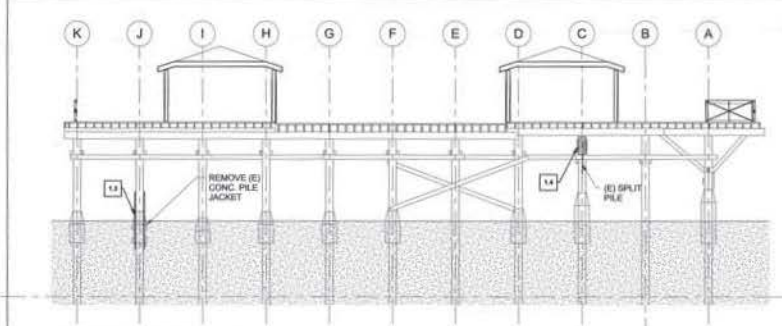




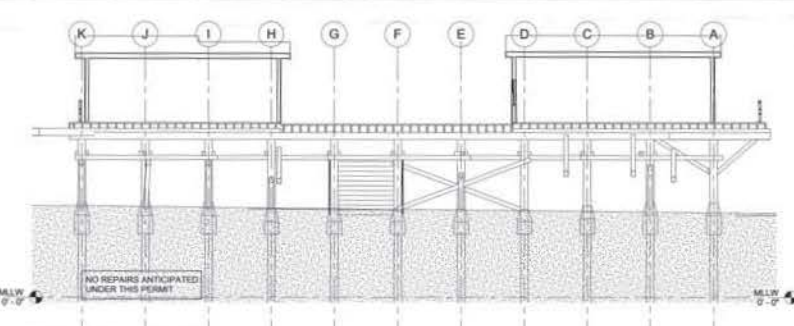
5 BENT 5 LOOKING WEST  
1/8" = 1'-0"



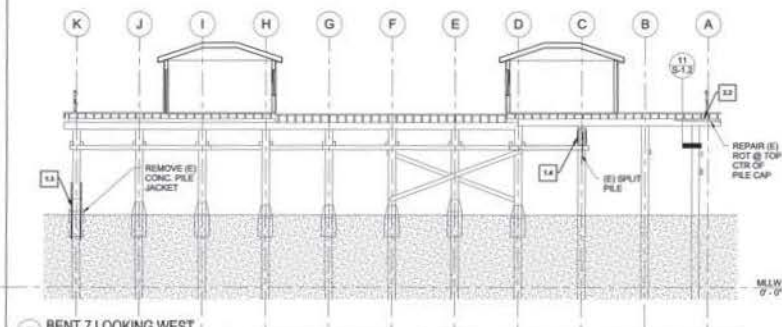
1 BENT 1 LOOKING EAST  
1/8" = 1'-0"



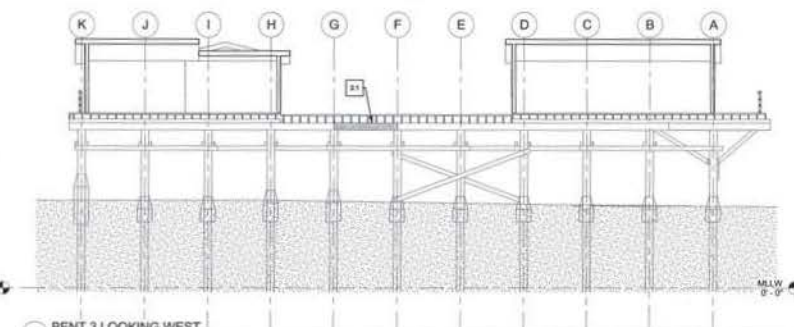
6 BENT 6 LOOKING WEST  
1/8" = 1'-0"



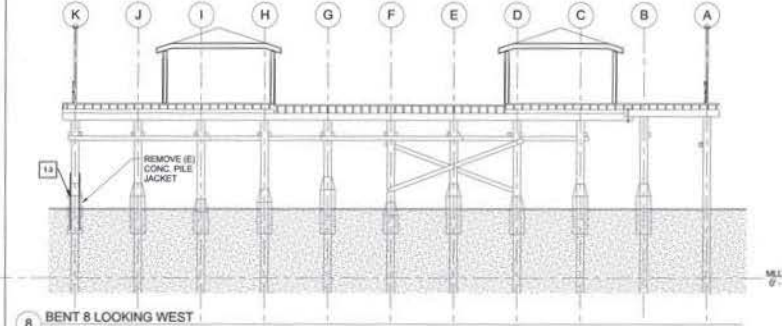
2 BENT 2 LOOKING WEST  
1/8" = 1'-0"



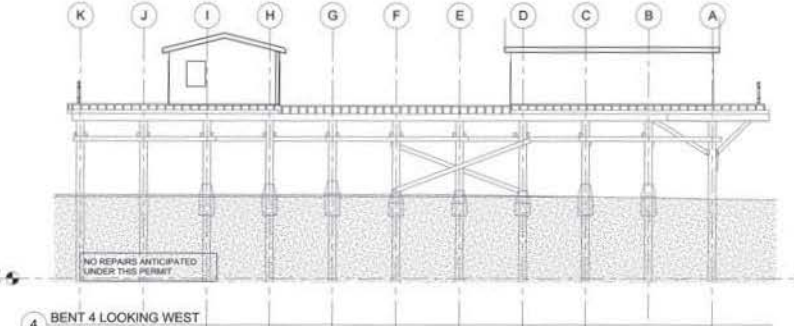
7 BENT 7 LOOKING WEST  
1/8" = 1'-0"



3 BENT 3 LOOKING WEST  
1/8" = 1'-0"



8 BENT 8 LOOKING WEST  
1/8" = 1'-0"



4 BENT 4 LOOKING WEST  
1/8" = 1'-0"

**BENT ELEVATIONS NOTE**

- FOR GENERAL NOTES AND REPAIR DESCRIPTION NARRATIVES SEE SHEET S1.1
- FOR TYPICAL REPAIR DETAILS SEE SHEET S1.2
- TYPICAL EXISTING PIER FRAMING: (NOTE: ACTUAL MEMBER SIZE AND SPACING MAY VARY DUE TO PAST REPAIRS AND/OR MODIFICATIONS.)
  - a. PIER DECKING: 2X STRAIGHT SHEATHING
  - b. JOISTS:
    - 1. MAIN DRIVING AREA (BENTS 1-27): 2X14 AT 18" O.C.
    - 2. BELOW COTTAGES/SPRIGATE DECKS: 2X14 AT 18" O.C.
    - 3. FISHING PIER (BENTS 27 - 51): 2X14 AT 24" O.C.
  - c. PILE CAPS: 12X12 ON 10X14 TIMBERS
  - d. WOOD PILES: 12" TO 14" DIA. (TAPERED), VARIES
  - e. BRACING: VARIES
- MEMBER LOCATIONS AND SIZES SHOWN IN THESE DRAWINGS ARE BASED ON AVAILABLE DOCUMENTATION AND ON LIMITED FIELD INVESTIGATION. THESE REPAIR PLANS ARE INTENDED TO REPRESENT THE GENERAL AND TYPICAL EXISTING CONDITIONS AND REPAIRS. EFFORTS HAVE BEEN MADE TO BE REASONABLY ACCURATE IN REPRESENTING EXISTING MEMBER SIZES AND LOCATIONS. HOWEVER, DUE TO THE ABOVE LIMITATIONS AND ONGOING WEAR AND TEAR ON THE PIER, THESE PLANS MAY NOT REFLECT EXISTING CONDITIONS AT THE TIME OF CONSTRUCTION IN ALL LOCATIONS. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
- REPAIRS INCLUDED UNDER THIS PERMIT ARE INDICATED BY KEY NOTE. SEE KEY NOTES BELOW AND KEY NOTE DESCRIPTIONS OF WORK ON SHEET S1.1 FOR MORE INFORMATION.
- WHERE PILE REPAIR OPTIONS 1.2 OR 1.3 ARE NOTED GRAPHIC INDICATE OPTION 1.2.

**KEYNOTES**  
FOR DETAILED DESCRIPTIONS OF WORK FOR EACH KEY NOTE SEE SHEET S1.1.

- PILE REPAIRS:**
  - 1.1 REPLACE EXISTING MISSING PILE - SEE S15-1.2, S15-1.2
  - 1.2 REPLACE EXISTING DAMAGED/DETERIORATED PILE - SEE S15-1.2, S15-1.2
  - 1.3 REPAIR EXISTING DETERIORATED/DAMAGED PILE - SEE S15-1.2, S15-1.2
  - 1.4 REPAIR EXISTING SPLIT PILE - SEE S15-1.2
  - 1.5 REMOVE EXISTING ABANDONED (HANGING) PILE.
- PILE CAP REPAIRS:**
  - 2.1 REPLACE EXISTING DETERIORATED PILE CAP - SEE S15-1.2
  - 2.2 REPAIR EXISTING DETERIORATED PILE CAP - SEE S15A-1.2
  - 2.3 REPAIR EXISTING SPLIT PILE CAP - ADD 1" DIA. STITCH BOLTS WITH M.I. WASHERS AT 4'-0" OC. - SEE S15B-1.2
- BRACE REPAIRS:**
  - 3.1 REPLACE EXISTING MISSING/DAMAGED BRACE - SEE S15-1.2
  - 3.2 REMOVE EXISTING DAMAGED BRACE SEGMENT.
  - 3.3 REMOVE & REINSTALL OR REPLACE EXISTING BRACING AS REQUIRED AT PILE REPAIR.

**ELEVATION LEGEND**

- INDICATES EXISTING PILE TO REMAIN
- INDICATES REPLACED SECTION OF PILE
- INDICATES PILE BUTT SPLICE PER DETAIL S151.2 OR S151.2
- INDICATES PILE JACKET REPAIR PER DETAIL S151.2 OR S151.2
- INDICATES EXISTING BRACING.
- INDICATES NEW OR REPLACED BRACING.
- INDICATES EXISTING CONCRETE PILE JACKET REPAIR TO REMAIN. NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.
- INDICATES EXISTING WOOD FRAMED COTTAGES CONSTRUCTED ON PIER. NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.

NO.	REVISION	DATE

DRAWN BY: TBS  
CHECKED BY: JBS  
APPROVED BY: JBS  
SCALE: 1/8" = 1'-0"  
JOB FILE: 141001  
FILE DATE: 6/26/14  
SHEET NO: 31

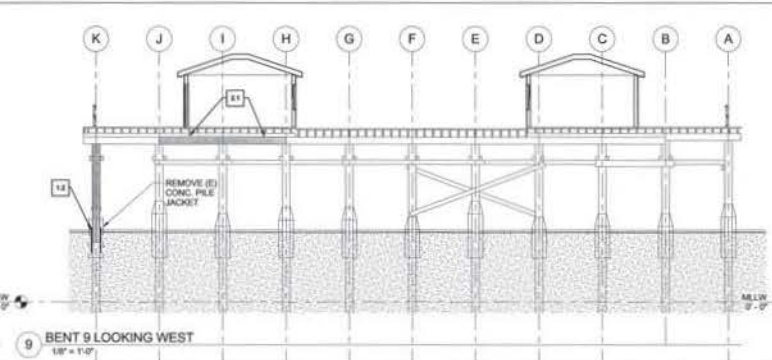


NO.	REVISION	DATE

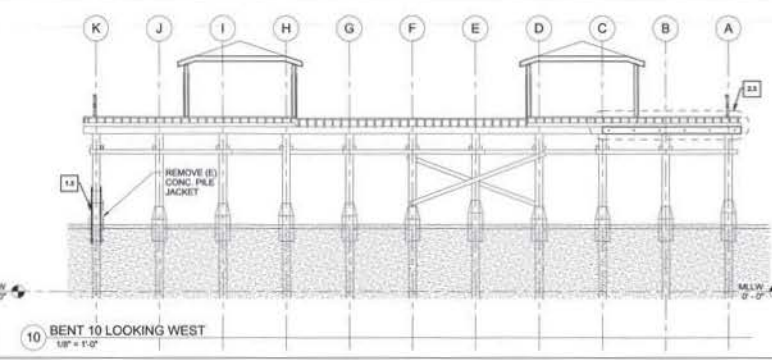
- BENT ELEVATION NOTES**
- FOR GENERAL NOTES AND REPAIR DESCRIPTION NARRATIVES SEE SHEET S1.1.
  - FOR TYPICAL REPAIR DETAILS SEE SHEET S1.2.
  - TYPICAL EXISTING PIER FRAMING:  
 NOTE: ACTUAL MEMBER SIZE AND SPACING MAY VARY DUE TO PAST REPAIRS AND/OR MODIFICATIONS.  
 a. PIER DECKING: 2X STRAIGHT SHEATHING  
 b. JOISTS: 3X14 AT 18" O.C.  
 c. BELOW COTTAGES/PRIVATE DECKS: 2X10 AT 18" O.C.  
 d. FISHING PIER (BENTS 27-51): 3X14 AT 20" O.C.  
 e. PILE CAPS: 12X12 OR 14X14 TIMBERS  
 f. WOOD PILES: 12" TO 14" DIA. (TAPERED) UNITS  
 g. BRACING: Varies
  - MEMBER LOCATIONS AND SIZES SHOWN IN THESE DRAWINGS ARE BASED ON AVAILABLE DOCUMENTATION AND ON LIMITED FIELD INVESTIGATION. THESE REPAIR PLANS ARE INTENDED TO REPRESENT THE GENERAL AND TYPICAL EXISTING CONDITIONS AND REPAIRS. EFFORTS HAVE BEEN MADE TO BE REASONABLY ACCURATE IN REPRESENTING EXISTING MEMBER SIZES AND LOCATIONS. HOWEVER, DUE TO THE ABOVE LIMITATIONS AND ONGOING WEAR AND TEAR ON THE PIER, THESE PLANS MAY NOT REFLECT EXISTING CONDITIONS AT THE TIME OF CONSTRUCTION IN ALL LOCATIONS. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
  - REPAIRS INCLUDED UNDER THIS PERMIT ARE INDICATED BY KEY NOTE. SEE KEY NOTES BELOW AND KEY NOTE DESCRIPTIONS OF WORK ON SHEET S1.1 FOR MORE INFORMATION.
  - WHERE PILE REPAIR OPTIONS 12 OR 13 ARE NOTED GRAPHS INDICATE OPTION 1.2.

- KEYNOTES**  
 FOR DETAILED DESCRIPTIONS OF WORK FOR EACH KEY NOTE SEE SHEET S1.1.
- PILE REPAIRS:**
    - 1.1 REPLACE EXISTING MISSING PILE - SEE 9/5-1.2, 9/5-1.2.
    - 1.2 REPLACE EXISTING DAMAGED/DETERIORATED PILE - SEE 9/5-1.2, 9/5-1.2.
    - 1.3 REPAIR EXISTING DETERIORATED/DAMAGED PILE - SEE 2/5-1.2, 3/5-1.2.
    - 1.4 REPAIR EXISTING SPLIT PILE - SEE 12/5-1.2.
    - 1.5 REMOVE EXISTING ABANDONED (HANGING) PILE.
  - PILE CAP REPAIRS:**
    - 2.1 REPLACE EXISTING DETERIORATED PILE CAP - SEE 1/5-1.2.
    - 2.2 REPAIR EXISTING DETERIORATED PILE CAP - SEE 1/5A-1.2.
    - 2.3 REPAIR EXISTING SPLIT PILE CAP - ADD 1" DIA BITTCH BOLTS WITH M.1 WASHERS AT 4'-0" OC - SEE 1/5B-1.2.
  - BRACE REPAIRS:**
    - 3.1 REPLACE EXISTING MISSING/DAMAGED BRACE - SEE 8/5-1.2.
    - 3.2 REMOVE EXISTING DAMAGED BRACE SEGMENT.
    - 3.3 REMOVE & REINSTALL OR REPLACE EXISTING BRACING AS REQUIRED AT PILE REPAIR.

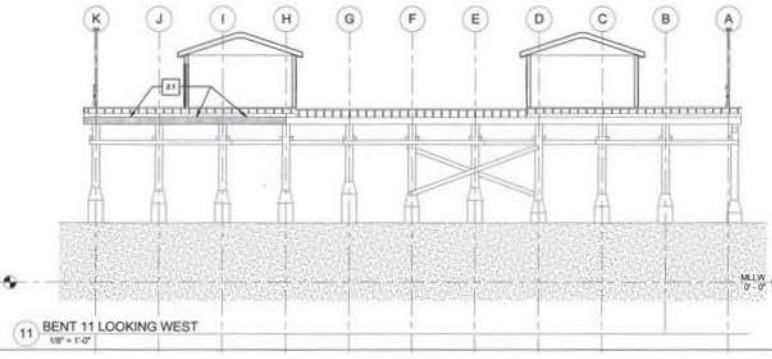
- ELEVATION LEGEND**
- INDICATES EXISTING PILE TO REMAIN
  - INDICATES REPLACED SECTION OF PILE
  - INDICATES PILE BUTT SPICE PER DETAIL S/51.2 OR S/51.2
  - INDICATES PILE JACKET REPAIR PER DETAIL 2/51.2 OR 3/51.2
  - INDICATES EXISTING BRACING
  - INDICATES NEW OR REPLACED BRACING
  - INDICATES EXISTING CONCRETE PILE JACKET REPAIR TO REMAIN, NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.
  - INDICATES EXISTING WOOD FRAMED COTTAGES CONSTRUCTED ON PIER, NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.



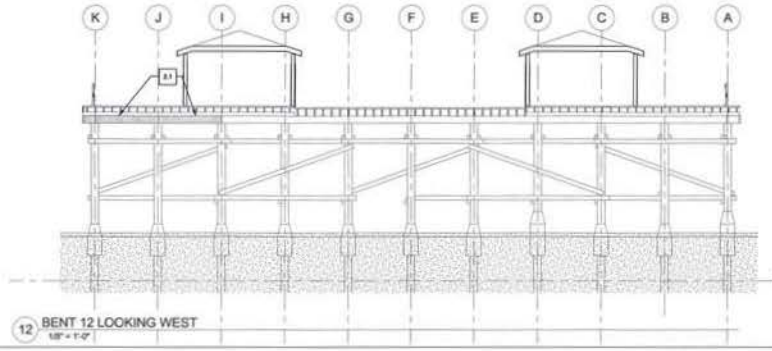
9 BENT 9 LOOKING WEST  
1/8" = 1'-0"



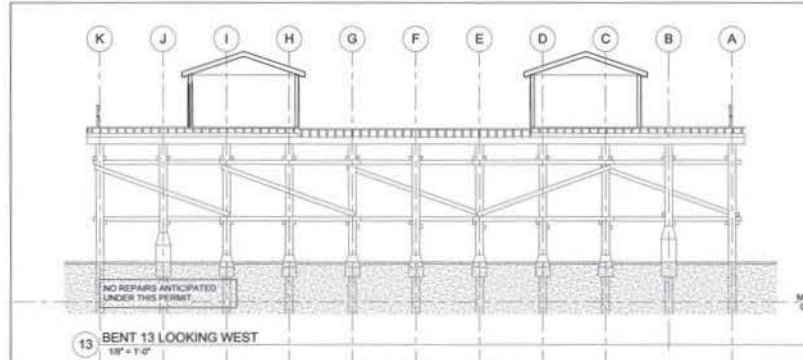
10 BENT 10 LOOKING WEST  
1/8" = 1'-0"



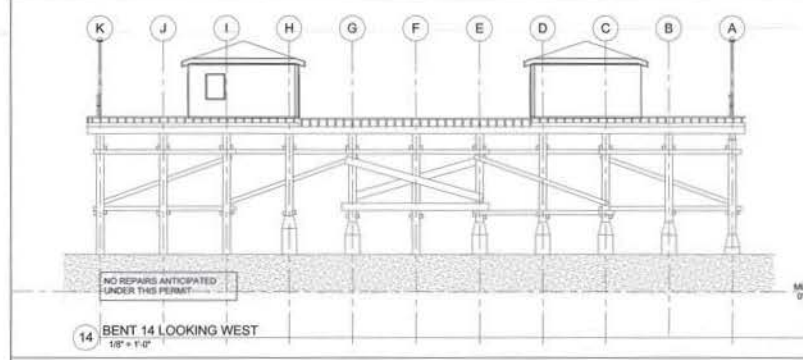
11 BENT 11 LOOKING WEST  
1/8" = 1'-0"



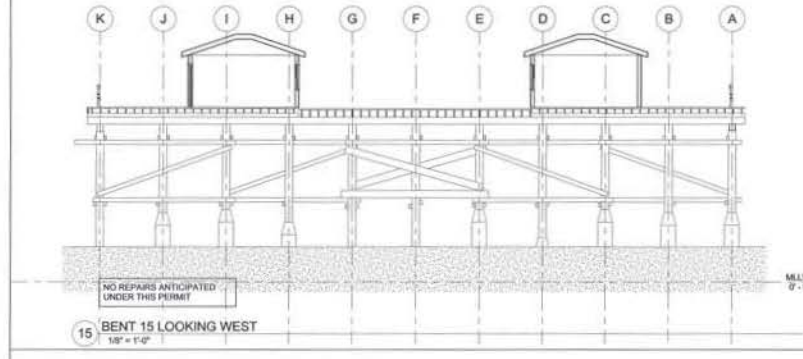
12 BENT 12 LOOKING WEST  
1/8" = 1'-0"



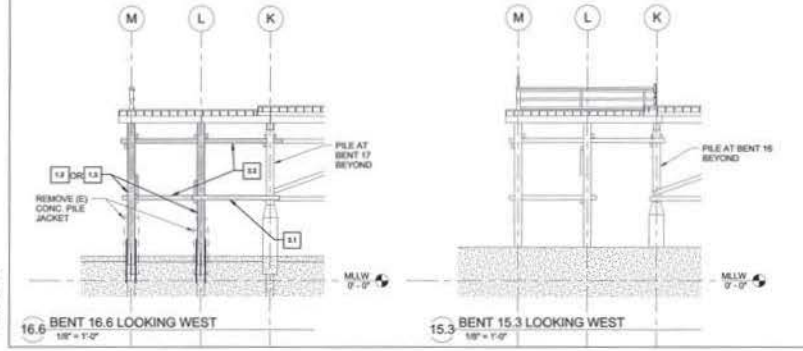
13 BENT 13 LOOKING WEST  
1/8" = 1'-0"



14 BENT 14 LOOKING WEST  
1/8" = 1'-0"



15 BENT 15 LOOKING WEST  
1/8" = 1'-0"

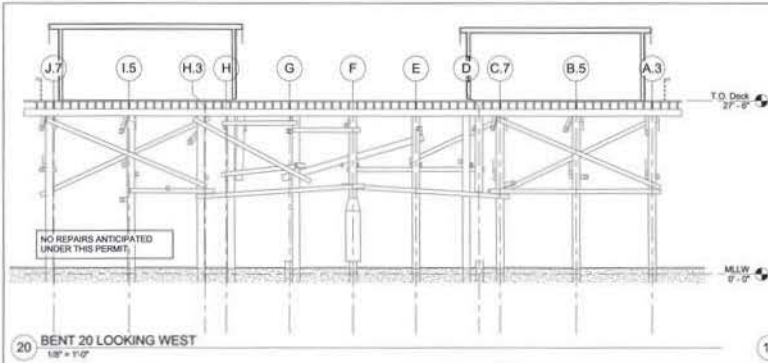


15.3 BENT 15.3 LOOKING WEST  
1/8" = 1'-0"

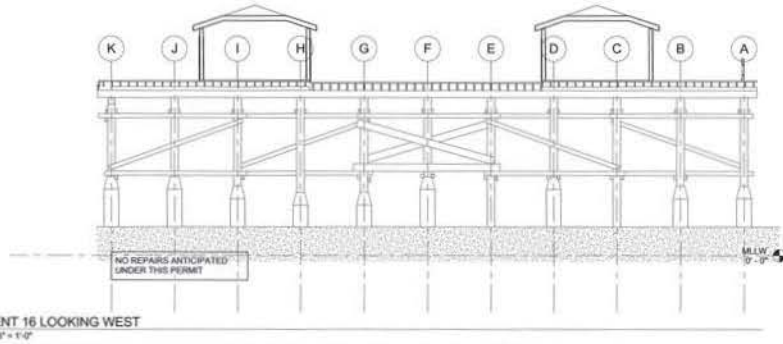


16.6 BENT 16.6 LOOKING WEST  
1/8" = 1'-0"

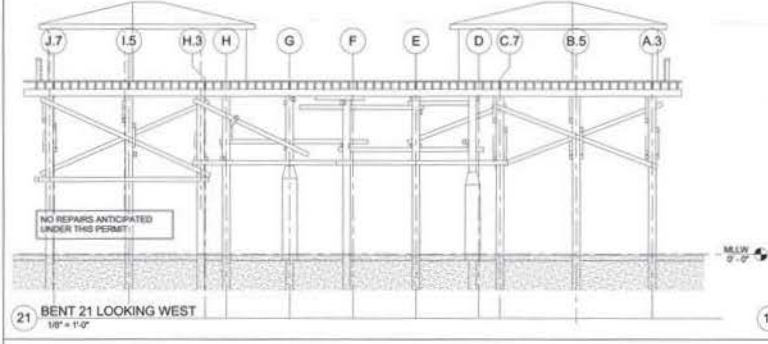




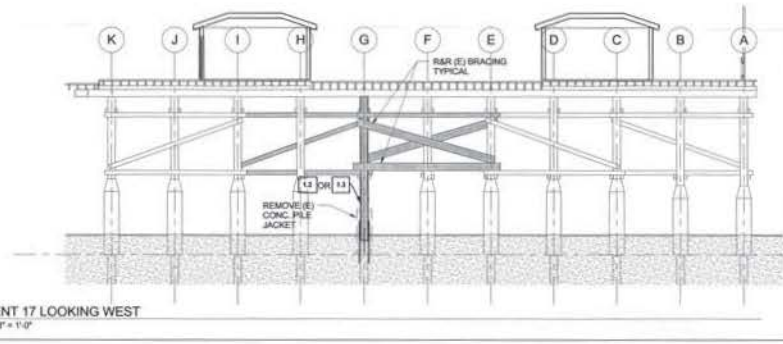
20 BENT 20 LOOKING WEST  
1/8" = 1'-0"



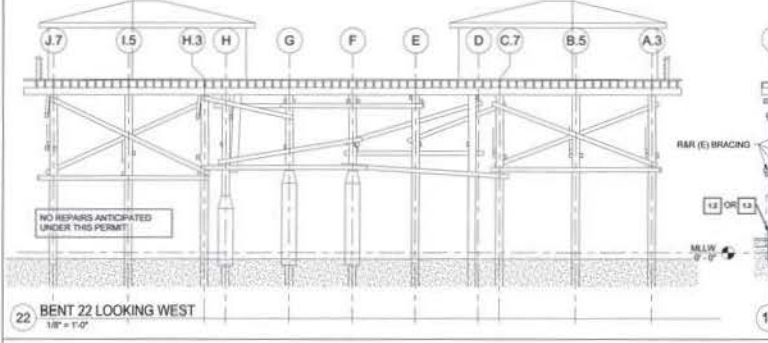
16 BENT 16 LOOKING WEST  
1/8" = 1'-0"



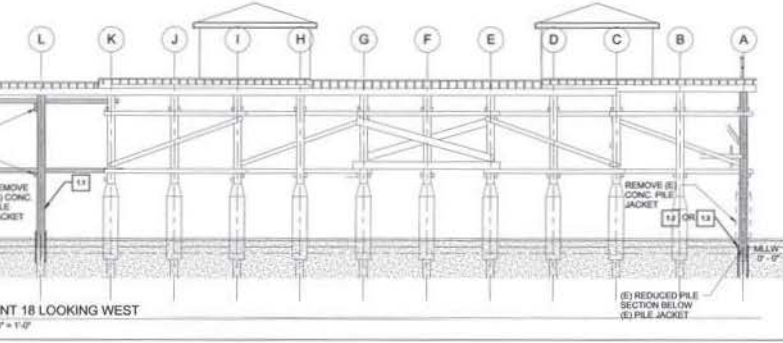
21 BENT 21 LOOKING WEST  
1/8" = 1'-0"



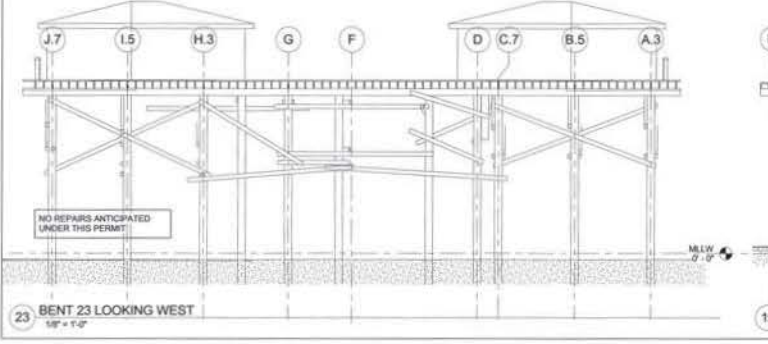
17 BENT 17 LOOKING WEST  
1/8" = 1'-0"



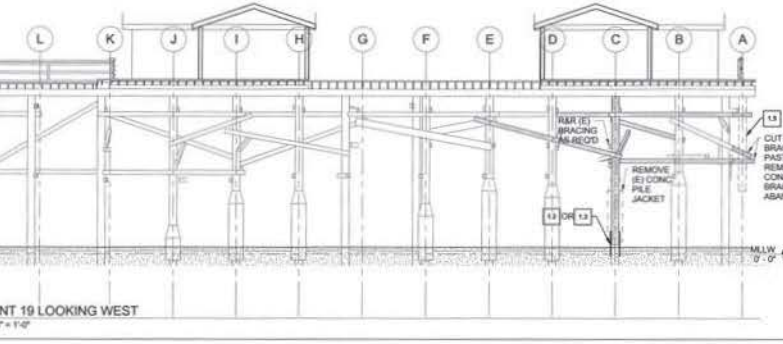
22 BENT 22 LOOKING WEST  
1/8" = 1'-0"



18 BENT 18 LOOKING WEST  
1/8" = 1'-0"



23 BENT 23 LOOKING WEST  
1/8" = 1'-0"



19 BENT 19 LOOKING WEST  
1/8" = 1'-0"

- GENERAL NOTES**
- FOR GENERAL NOTES AND REPAIR DESCRIPTION NARRATIVES SEE SHEET S1.1
  - FOR TYPICAL REPAIR DETAILS SEE SHEET S1.2
  - TYPICAL EXISTING PIER FRAMING:  
(NOTE: ACTUAL MEMBER SIZE AND SPACING MAY VARY DUE TO PAST REPAIRS AND/OR MODIFICATIONS.)
    - a. PIER DECKING: 2X STRAIGHT SHEATHING
    - b. JOISTS:
      - 1. MAIN DRIVING AREA (BENTS 1-27): 8X14 AT 18" O.C.
      - 2. BELOW COTTAGES/PRIVATE DECKS: 2X10 AT 18" O.C.
    - c. FISHING PIERS (BENTS 27 - 51): 8X14 AT 24" O.C.
    - d. PILE CAPS: 12X12 OR 10X14 TIMBERS
    - e. WOOD PILES: 12" TO 14" DIA. (TAPERED) VARIES
    - f. BRACING:
  - MEMBER LOCATIONS AND SIZES SHOWN IN THESE DRAWINGS ARE BASED ON AVAILABLE DOCUMENTATION AND ON LIMITED FIELD INVESTIGATION. THESE REPAIR PLANS ARE INTENDED TO REPRESENT THE GENERAL AND TYPICAL EXISTING CONDITIONS AND REPAIRS. EFFORTS HAVE BEEN MADE TO BE REASONABLY ACCURATE IN REPRESENTING EXISTING MEMBER SIZES AND LOCATIONS. HOWEVER, DUE TO THE ABOVE LIMITATIONS AND ONGOING WEAR AND TEAR ON THE PIER, THESE PLANS MAY NOT REFLECT EXISTING CONDITIONS AT THE TIME OF CONSTRUCTION IN ALL LOCATIONS. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
  - REPAIRS INCLUDED UNDER THIS PERMIT ARE INDICATED BY KEY NOTE. SEE KEY NOTES BELOW AND KEY NOTE DESCRIPTIONS OF WORK ON SHEET S1.1 FOR MORE INFORMATION.
  - WHERE PILE REPAIR OPTIONS 1.2 OR 1.3 ARE NOTED GRAPHIC INDICATE OPTION 1.2.

- KEYNOTES**  
FOR DETAILED DESCRIPTIONS OF WORK FOR EACH KEY NOTE SEE SHEET S1.1.
- PILE REPAIRS:**
    - 1.1 REPLACE EXISTING MISSING PILE - SEE 9/5-1.2, 9/5-1.2
    - 1.2 REPLACE EXISTING DAMAGED/DETERIORATED PILE - SEE 9/5-1.2, 9/5-1.2
    - 1.3 REPAIR EXISTING DETERIORATED/DAMAGED PILE - SEE 2/5-1.2, 3/5-1.2
    - 1.4 REPAIR EXISTING SPLIT PILE - SEE 12/5-1.2
    - 1.5 REMOVE EXISTING ABANDONED (HANGING) PILE.
  - PILE CAP REPAIRS:**
    - 2.1 REPLACE EXISTING DETERIORATED PILE CAP - SEE 1/5-1.2
    - 2.2 REPAIR EXISTING DETERIORATED PILE CAP - SEE 11/5-1.2
    - 2.3 REPAIR EXISTING SPLIT PILE CAP - ADD 1" DIA. SPLIT BOLTS WITH M.I. WASHERS AT 4'-0" OC - SEE 1/5-1.2
  - BRACE REPAIRS:**
    - 3.1 REPLACE EXISTING MISSING/DAMAGED BRACE - SEE 9/5-1.2
    - 3.2 REMOVE EXISTING DAMAGED BRACE SEGMENT
    - 3.3 REMOVE & REINSTALL OR REPLACE EXISTING BRACING AS REQUIRED AT PILE REPAIR.

- ELEVATION LEGEND**
- INDICATES EXISTING PILE TO REMAIN
  - INDICATES REPLACED SECTION OF PILE
  - INDICATES PILE BUTT SPlice PER DETAIL S/51.2 OR 6/51.2
  - INDICATES PILE JACKET REPAIR PER DETAIL D/51.2 OR S/51.2
  - INDICATES EXISTING BRACING
  - INDICATES NEW OR REPLACED BRACING
  - INDICATES EXISTING CONCRETE PILE JACKET REPAIR TO REMAIN, NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.
  - INDICATES EXISTING WOOD FRAMED COTTAGES CONSTRUCTED ON PIER, NO REPAIR WORK ANTICIPATED UNDER THIS PERMIT.





