



State of Delaware
Department of Natural Resources and Environmental Control
Delaware Division of Parks and Recreation
89 Kings Highway
Dover, Delaware 19901

ADDENDUM No. ONE

Project Name: Pier Repairs
Cape Henlopen State Park

Project No.: CH-36

Date of Issue: May 12, 2015

Notice No. 1: Attach this addendum to the Project Manual for this project. It modifies and becomes part of the Bidding Documents. Work or material not specifically mentioned herein is to be as described in the main body of the specification and as shown on the drawings.

Bids Due: Tuesday, May 19, 2015 at 2:00 PM
DNREC Division of Parks and Recreation
Richardson and Robbins Building
89 Kings Highway
Dover, DE 19901

General Information:

1. A mandatory pre-bid meeting was held at the project site on Tuesday, May 5, 2015, at 10:00 AM. A copy of the sign-in sheet is included with this addendum.

Pre-bid Meeting:

1. Refer to attached prebid meeting minutes prepared by Baker Ingram & Associates for a summary of discussions.

Technical Manual:

1. The Bid Form is revised to include Alternate Two and updated Subcontractor Listing and is included as part of this Addendum.
2. Section 011000, Summary is revised and included as part of this Addendum.
3. Section 024119, Selective Structure Demolition was inadvertently omitted from the issued documents and is included as part of this Addendum.

4. Section 061000, Rough Carpentry was inadvertently omitted from the issued documents and is included as part of this Addendum.
5. Section 316220, Timber Pile Repair System was inadvertently omitted from the issued documents and is included as part of this Addendum.

Drawings:

1. Refer to Sheet 2 of 4: SK1 is issued with this Addendum revising Sheet 2 of 4. Refer to attached summary of revisions prepared by Baker Ingram & Associates.
2. Refer to Sheet 4 of 4: SK2 is issued with this Addendum revising Sheet 4 of 4. Refer to attached summary of revisions prepared by Baker Ingram & Associates.
3. Refer to Sheet 4 of 4: SK1 is issued with this Addendum revising Sheet 4 of 4. Refer to attached summary of revisions prepared by Baker Ingram & Associates.
4. Refer to Sheet 2 of 4: SK1 is issued with this Addendum revising Sheet 4 of 4. Refer to attached summary of revisions prepared by Baker Ingram & Associates.

End of Addendum No. One

Enclosures

ATTENDANCE SHEET

PRE-BID - CONTRACT # 2015-CH-100

NAME: Cape Henlopen Pier Repairs

DATE: May 5, 2015 at 10:00 AM

NAME	AGENCY/COMPANY	TELEPHONE	EMAIL
Ed Znanieć	Orion Marine Group	757-747-2804	eznaniec@orionmarinegroup.com
Todd Zettle	Commerce Construction	609-352-1299 x321	TAZ@CommerceConstruction.com
DAVID KIMBERLY	McLean Contracting Co.	410-553-6700	dkimberly@mcleancont.com
CARL SCHIFFEREL	SIMPSON STRONGTIE/BSX	410-371-8283	CSCHIFFEREL@STRONGTIE.COM
GREGG SPARKS	WALKER DIVING	609-704-8650	gsparks@walkerdiving.com
Rick Curles	West Management	302-420-2351	RCURLES@WM.COM
J.C. SPANGLER	DRYDEN DIVING C. INC.	856-467-1385	j@drydendiving.com
JOE BACZEWSKI	WALKER DIVING	609-704-8650	JBACZEWSKI@WALKERDIVING.COM
Paul Nicholas	DWELL P&R	302-739-9228	PAUL.NICHOLAS@STATE.DE.US
PICK KUHN	KUHN CONST	302-239-4344	W.KUHN@kuhn.com
RICH MAZOL	MAD CORP	302-678-9300	MAD CORP@EMCAST.NET
Adam Smith	Orion Marine Group	757-286-5138	ASmith@Orionmarinegroup.com
NIKHIL MENEZES	ATLANTIC SUBSEA, INC	856-241-3544	operations@atlanticsubsea.com
Brian Thompson	Conventional Builders Inc	302-422-2429	conventionalbuilders@car-east.net

Cape Henlopen Pier Repairs - File: CH-36

05/05/2015



BAKER, INGRAM & ASSOCIATES

STRUCTURAL ENGINEERS

PRINCIPALS

LAWRENCE R. BAKER, JR., P.E.
A. PAYNTER INGRAM, P.E.
THOMAS E. WOODS, P.E.
BRIAN D. MCGLADE, P.E.
JOHN K. WOOD, P.E.
FRANK M. YOUNG, P.E.

ADDENDUM No. ONE

Project Name: Cape Henlopen Fishing Pier Repairs
State of Delaware Contract Number: 2015-CH-100

Date: May 19, 2015

Bids Due: Tuesday, May 19, 2015 at 2:00 PM.

General Information:

1. A mandatory pre-bid meeting was held at the project site on Tuesday, May 5, 2015 at 10:00 AM. A copy of the sign-in sheet is included with this addendum.

Pre-bid Meeting:

1. Brief description of the scope of work.
 - A. Fiberglass jacket piling repairs.
 - B. Decking replacement, which includes lighting and fence removal and reinstallation.
 - C. The work is to be phased such that piling repairs are started and completed from the beach moving outward so that all materials and equipment are supported on repaired piling. Decking replacement, if accepted, must occur after the piling are repaired.
 - D. The contractor may use the overflow parking area as a staging area for materials and equipment.
 - E. The pier will be closed to the public for the duration of the project. The parking lot and surrounding areas will be open to the public 24 hours per day.
 - F. Fresh water is available for use on site. It is located near the existing tackle shop.

REGIONAL OFFICES

LANCASTER, PA
DOVER, DE
NEWARK, DE
HADDON HEIGHTS, NJ
ELKTON, MD
LEESBURG, VA

G. Three sections of technical specifications were missing from the compact disk. They are attached to the minutes.

H. A detail for the hatch replacement is attached.

I. A detail for the decking at the center of the pier is attached.

J. The total quantity of piling repairs has been reduced. Repairs in Bents 0-6 have been eliminated.

K. The following requested subcontractors to be listed on the Bid Form were reviewed and accepted by those present: Electrical.

L. A second add-alternate has been added. This will be the cost to remobilize if the decking replacement portion of the project is delayed to allow the pier to open immediately following the pile repairs.

M. All questions shall be faxed or emailed to Cindy Todd at The State of Delaware, Division of Parks & Recreation. All questions must be in writing.

End of Addendum No. One

Enclosures



CAPE HENLOPEN PIER REPAIR
CAPE HENLOPEN STATE PARK
LEWES, DELAWARE
DIVISION OF PARKS AND RECREATION CONTRACT No. 2015-CH-100

BID FORM

For Bids Due: Tuesday, May 19, 2015 To: Dept. of Natural Resources and Environmental Control
Division of Parks and Recreation
Office of Design and Development
89 Kings Highway, Dover DE 19901

Name of Bidder: _____

Delaware Business License No.: _____ **Taxpayer ID No.:** _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

(Other License Nos.): _____

Phone Number: () _____ **Fax Number:** () _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

\$ _____

(\$ _____)

Base bid includes fiberglass jacket piling repairs.

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DIVISION OF PARKS AND RECREATION CONTRACT No. 2015-CH-100

BID FORM

ALTERNATES

Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An “ADD” or “DEDUCT” amount is indicated by the crossed out part that does not apply.

ALTERNATE No. 1: Timber decking replacement. This includes the removal and reinstallation of lights and fencing.

Add/Deduct: _____
(\$ _____)

No. of Days to Complete Alternate 1:100 Calendar Days

ALTERNATE No. 2: Remobilization cost if timber decking is installed at a later date.

Add/Deduct: _____
(\$ _____)

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 LEWES, DELAWARE
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BID FORM

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

		DEDUCT	ADD
UNIT PRICE No. 1:	Treated 4x_Decking: Furnish and install treated 4x_Decking in accordance with contract documents.	\$ _____	\$ _____
UNIT PRICE No. 2	Fence Replacement: Furnish and install new fence where existing fence is not suitable for re-use.	\$ _____	\$ _____
UNIT PRICE No. 3	Fiberglass Jacket Piling Repairs: Furnish and install fiberglass jacket repairs in accordance with construction documents.	\$ _____	\$ _____

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DIVISION OF PARKS AND RECREATION CONTRACT No. 2015-CH-100

BID FORM

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for thirty (30) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid.

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _____ calendar days of the Notice to Proceed.

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's/General Partner's /Corporate Name)

(State of Corporation)

Business Address: _____

Witness: _____

By: _____
(Authorized Signature)

(Seal)

(Title)

Date: _____

ATTACHMENTS

- Sub-Contractor List
- Non-Collusion Statement
- Bid Security
- (Others as Required by Project Manual)

CAPE HENLOPEN PIER REPAIR
CAPE HENLOPEN STATE PARK
LEWES, DELAWARE
DIVISION OF PARKS AND RECREATION CONTRACT No. 2015-CH-100

BID FORM

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor **must be listed for each category** where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the *Owner*, **it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.**

Subcontractor Category	Subcontractor	Address (City & State)	Subcontractors tax payer ID # or Delaware Business license #
1. Electrical	_____	_____	_____
	_____	_____	_____

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LEWES, DELAWARE
DIVISION OF PARKS AND RECREATION CONTRACT No. 2015-CH-100

BID FORM

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date to the Office of Management and Budget, Division of Facilities Management.

All the terms and conditions of the Cape Henlopen Pier Repair have been thoroughly examined and are understood.

NAME OF BIDDER _____

AUTHORIZED REPRESENTATIVE
(TYPED): _____

AUTHORIZED REPRESENTATIVE
(SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ of 20_____.

My commission expires _____ NOTARY PULIC _____

THIS PAGE MUST BE SIGNED AND NOTORIZED FOR YOUR BID TO BE CONSIDERED.

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work under separate contract.
4. Alternates.
5. Unit Prices.
6. Applications for Payment.
7. Owner Supplied Construction Documents.
8. Coordination.
9. Phased construction.
10. Access to site.
11. Coordination with occupants.
12. Work restrictions.
13. Specification and drawing conventions.
14. Field Engineering.
15. References and Standards.
16. Miscellaneous provisions.

- B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: Cape Henlopen Pier Repairs.

1. Project Location: Dock Drive, Cape Henlopen State Park, Lewes, Delaware.

- B. Owner: State of Delaware, Division of Natural Resources and Environmental Control, Parks and Recreation, 89 Kings Highway, Dove DE 19901.

- C. Architect/Engineer's Identification: The Contract Documents, dated insert date of issue, were prepared for this Project by Baker, Ingram & Associates, 1050 South State Street, Dover, DE 19901.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. Fiberglass jacket piling repairs, fence and lighting removal and reinstallation, and timber decking replacement.
- B. Type of Contract:
 - 1. Project will be constructed under a single, lump sum prime contract.

1.5 WORK UNDER SEPARATE CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts as it will have an impact on the General Contractor's scope of work. The General Contractor shall allow the separate contractors access to scaffolding and/or high reaches.
 - 1. Items noted "NIC" (Not in Contract) will be furnished and installed by others.

1.6 ALTERNATES

- A. Alternates quoted in the Bid Form will be exercised as Owner option. Accepted alternates will be listed in the Owner-Contractor agreement.
- B. Coordinate related work and modify surrounding work affected by accepted alternates as required to complete the Work.
- C. Schedule of Alternates: Refer to Section 012300 Alternates.

1.7 UNIT PRICES

- A. Unit Prices quoted on the Bid form will be exercised as Owner option.
- B. Coordinate related work and modify surrounding work affected by accepted unit prices as required to complete the Work.
- C. Schedule of Unit Prices: Refer to Section 012200 Unit Prices.

1.8 APPLICATIONS FOR PAYMENT

- A. Submit three (3) originals of each application under procedures of Section 012900 Payment Procedures.
- B. Content and Format: Use the Project Manual table of contents to develop the Schedule of Values.

1.9 OWNER SUPPLIED CONSTRUCTION DOCUMENTS

- A. The Contractor will be furnished, free of charge, five (5) copies of the drawings and Project Manuals (or less if requested). Additional sets will be furnished at the cost of reproduction, postage and handling.

1.10 COORDINATION

- A. Coordinate Work of the various sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- B. Verify characteristics of elements of interrelated operating equipment are compatible; coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements and installation of mechanical, electrical and plumbing work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduits, as closely as practicable; make runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas (except as otherwise shown), conceal pipes, ducts, and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Execute cutting and patching to integrate elements of Work, uncover ill-timed defective and non-conforming work, provide openings for penetrations of existing surfaces, and provide samples for testing. Seal penetrations through floors, walls, and ceilings.

1.11 PHASED CONSTRUCTION

- A. The Work may be conducted in two phases. Each phase shall be substantially complete prior to starting the next phase.
 - 1. Phase One: Pile repairs.
 - 2. Phase Two: Decking replacement.

- B. Before commencing Work of each phase, submit an updated copy of Contractor's construction schedule showing the sequence, commencement and completion dates for all phases of the Work.

1.12 ACCESS TO SITE

- A. General: Contractor shall have partial use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to areas within the Contract limits. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to the areas as indicated. The surrounding buildings/site are occupied and the Owner's operations shall not be disturbed.
 - 2. Driveways, Walkways and Entrances: Keep public roads, public parking, driveways and entrances outside of the work area serving premises clear and available to Owner, Owner's employees, emergency vehicles and general public 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.
 - 3. The adjacent building areas, site and properties are occupied and shall not be disturbed.
- C. Condition of Existing Pier: Maintain portions of existing pier affected by construction operations in a weather tight condition throughout construction period. Repair damage caused by construction operations.

1.13 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site, 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. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, entrances, and other adjacent occupied or used facilities. Do not close or obstruct walkways, entrances, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction. Entrances shall be open for the Owner's use at all times.
 - 2. Barricade work areas to keep the public from entering.
 - 3. Notify Owner not less than one week in advance of activities that will affect Owner's operations.

1.14 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
 - 2. Refer to Section 011400 "Work Restrictions" for additional requirements.
- B. On-Site Work Hours: Limit work to the site and/or existing building to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated.
 - 1. Weekend Hours: Weekend work shall not be allowed unless preapproved by the Owner.
 - 2. Early Morning Hours: Early morning hours are not allowed unless preapproved by Owner.
- C. Noise, Vibration, and Odors: Coordinate operations that may result in any level of noise and vibration, odors, or other disruption to the occupancy or use of adjacent occupied areas, the buildings and adjacent properties with the Owner.
 - 1. Notify Architect and Owner not less than seven (7) days in advance of proposed disruptive operations.
 - 2. Obtain Architect's and/or Owner's written permission before proceeding with disruptive operations.
- D. Nonsmoking Campus and Building: Smoking is prohibited within the boundaries of all state workplaces including all buildings, facilities, indoor and outdoor spaces and all the surrounding grounds owned by the State. This policy also includes but is not limited to parking lots, walkways, State vehicles and private vehicles parked or operated on State workplace property.

1.15 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- 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 published as part of the U.S. National CAD Standard and scheduled on Drawings.
3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.16 FIELD ENGINEERING

- A. Provide field engineering services; establish grades, lines, and levels, by use of recognized engineering survey practices.
- B. Control datum for survey is that shown on drawings. Locate and protect control and reference points.

1.17 REFERENCES AND STANDARDS

- A. For products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that in effect as of the Bid date, except when a specific date is specified.
- C. Obtain copies of standards when required by Contract Documents. Maintain copy at job site during progress of the specific work.

1.18 MISCELLANEOUS PROVISIONS

A. SCHEDULE

1. The following is the required schedule for this work:
 - a. Bids Due: Tuesday, May 19, 2015, 2:00 p.m.
 - b. Notice of Building Contract Award: Within thirty (30) days of receipt and acceptance of qualified low bid.
 - c. Purchase Order Issuance: The issuance of a State of Delaware purchase order is contingent upon the successful Contractor submitting bonds on State-approved forms, signed contracts and insurance certificates to the State of Delaware within 20 days of Notice of Award. A purchase order will be issued in approximately thirty days after these items have been submitted to the State of Delaware.
 - d. On-Site Mobilization: Upon receipt of State of Delaware purchase order.
 - e. Substantial Completion: The base bid (piling repairs) shall be completed shall be completed 100 calendar days from on-site start of work.
 - f. Completion of Punch List: 21 days from date of substantial completion.
- 1) Refer to the General Requirements for additional details.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:

- 1. Demolition and removal of selected portions of structure.

- B. Related Sections include the following:

- 1. Division 01 Section "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for selective demolition operations.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.
- C. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

1.5 SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 3. Coordination for shutoff, capping, and continuation of utility services.
 4. Means of protection for items to remain and items in path of waste removal from building.
- B. Predemolition Photographs: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Submit before Work begins.
- C. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.6 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI A10.6 and NFPA 241.
- D. Predemolition Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."
- E. Predemolition Conference: Conduct conference at Project site. Review methods and procedures related to selective demolition including, but not limited to, the following:
1. Inspect and discuss condition of construction to be selectively demolished.
 2. Review structural load limitations of existing structure.
 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 5. Review areas where existing construction is to remain and requires protection.

1.7 PROJECT CONDITIONS

- A. Owner will occupy portions of pier immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is unknown whether hazardous materials will be encountered in the Work.
 - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1.8 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.
 - 1. Comply with requirements for existing services/systems interruptions specified in Division 01 Section "Summary."

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent structure to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of pier.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically.
 - 2. Neatly cut openings plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.
 - 3. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting framing.
 - 4. Dispose of demolished items and materials promptly.
- B. Removed and Salvaged Items:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area on-site.
 - 5. Protect items from damage during transport and storage.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Framing with dimension lumber.
 - 2. Framing with timber.
 - 3. Wood blocking and nailers.

1.3 DEFINITIONS

- A. Boards or Strips: Lumber of less than 2 inches nominal (38 mm actual) size in least dimension.
- B. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) size or greater but less than 5 inches nominal (114 mm actual) size in least dimension.
- C. Exposed Framing: Framing not concealed by other construction.
- D. Timber: Lumber of 5 inches nominal (114 mm actual) size or greater in least dimension.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.

1.5 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
- B. Evaluation Reports: For the following, from ICC-ES:

1. Wood-preservative-treated wood.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect wood products from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 1. Factory mark each piece of lumber with grade stamp of grading agency.
 2. Dress lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: 19 percent unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

- A. Preservative Treatment by Pressure Process: AWWPA U1; Use Category UC4a for all items.
 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat all rough carpentry unless otherwise indicated.

2.3 DIMENSION LUMBER FRAMING

- A. Decking and Other Framing Not Listed Above: No. 2 grade.
 1. Species:
 - a. Southern pine or mixed southern pine; SPIB.

2.4 FASTENERS

- A. General: Fasteners shall be of size and type indicated and shall comply with requirements specified in this article for material and manufacture.
 - 1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M or as indicated.
- B. Nails, Brads, and Staples: ASTM F 1667.
 - 1. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- B. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- C. Do not splice structural members between supports unless otherwise indicated.
- D. Provide blocking and framing as indicated and as required to support facing materials, fixtures, and specialty items.
- E. Sort and select lumber so that natural characteristics do 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.
- F. Comply with AWWA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
 - 1. Use copper naphthenate for items not continuously protected from liquid water.
- G. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated.
- H. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered.
 - 1. Comply with indicated fastener patterns where applicable.
 - 2. Use common nails unless otherwise indicated. Drive nails snug but do not countersink nail heads.

3.2 WOOD BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.
- C. Provide permanent grounds of dressed, pressure-preservative-treated, key-beveled lumber not less than 1-1/2 inches (38 mm) wide and of thickness required to bring face of ground to exact thickness of finish material. Remove temporary grounds when no longer required.
- D. 3/8-inch (9.5-mm) variation between largest and smallest treads and risers within each flight.

END OF SECTION 061000

SECTION 316220 – TIMBER PILE REPAIR SYSTEM

PART 1 – GENERAL

1.1. DESCRIPTION

The work under this section shall include furnishing and installing a permanent outer jacket, made from durable, inert corrosion-free materials and filling the annular space between the pile and the permanent jacket with a combination of Hydro-Ester® pourable / pumpable epoxy grout, non-shrink non-water separable cementitious grout, constructing a bevel at the top of the jacket with a trowel grade Hydro-Ester® grout. All materials shall be compatible and shall be manufactured by a single source. Specifications are based upon products supplied by Fox Industries, however "or equal" substitutions may be acceptable upon approval of an alternate system submission.

1.2. MATERIALS

A. Jackets:

The jackets shall be FX-70® Inert Corrosion-Free Jackets, with an interlocking joint. The jackets shall be fabricated from fiberglass and polyester resins and shall be a minimum thickness of 1/8 inch unless otherwise shown on the plans. The inside face of the jacket shall be textured similar to a sandblasted surface and have no bond-inhibiting agents in contact with the grouts. The jackets shall be provided with non-corrosive standoffs, which will maintain the jackets in the required positions. The jacket shall be capable of being opened, placed around a pile and then returned to its original shape without damaging the jacket.

- a. Water Absorption (ASTM D-570).....1% max.
- b. Ultimate Tensile Strength (ASTM D-638)
Longitudinal, transverse and diagonal.....15,000 psi
- c. Flexural Strength (ASTM D-796).....25,000 psi
- d. Flexural Modulus of Elasticity (ASTM D-790)..... 700,000 psi min
- e. Barcol Hardness (ASTM D-2583)45 + 5
- f. ColorFederal Color Standard
No.595A–TableVIII–26622-Gray

B. Hydro-Ester® Pourable / Pumpable Epoxy Grout:

The Epoxy grout shall be composed of FX-70-6 Multi Purpose Marine Epoxy binder and C Component Extender as follows:

Binder:

The binder shall be a two (2) component (2:1 Ratio) Hydro-Ester® Epoxy material meeting the following requirements:

- a. It shall be moisture insensitive for application both above and below water.
- b. It shall adhere to wet concrete, steel and FX-70® Jackets.

"C" Component:

The "C" Component shall be compatible with the hydro-ester epoxy binder and, when mixed with the epoxy binder, shall produce a smooth flowing pourable / pumpable grout.

Mixing:

The binder shall be mechanically mixed in strict accordance with the manufacturer's instructions.

- a. One gallon of mixed binder shall be combined with one – 50 lb. bag of "C" Component.
- b. When mixed in the ratio of one gallon of binder to one 50 lb. bag of "C" Component, the minimum compressive strength of two inch cubes of this mix at seven days (curing at 66 to 74 degrees F) shall be 8,000 psi when tested according to ASTM C-579 Method B.)
- c. The yield of one gallon of binder when mixed with 50 lbs. of "C" Component shall be a minimum of 79- cubic inches.

C. Non-Shrink, Non-Water Separable, Cementitious Grout:

Non-shrink, non-water separable cementitious grout shall be non-metallic, non-corrosive, and contain no chlorides. The grout shall have a 28 days minimum compressive strength of 5,000 psi. Non-shrink grout shall conform to ASTM C-1107.

The grout shall be proportioned to meet the handling, placement and pumping requirements of the intended application and the design mix shall be submitted for approval. Viscosity of the mixed grout shall be such that it may be pumped without segregation between the jacket and pile wall without the formation of voids.

Grout shall be FX-225 Non-Shrink, Non-Metallic Underwater Grout manufactured by Fox Industries, Inc., Baltimore, MD (888-760-0369) or approved equal.

D. Hydro-Ester® Trowel Grade Epoxy Grout:

The trowel grade epoxy grout shall be composed of FX-763 Trowel Grade epoxy binder and FX-701 Filler as follows:

Binder:

The binder shall be a two component 2:1 ratio FX-763 Trowel Grade Hydro-Ester® epoxy material meeting the following requirements:

- a. It shall be moisture insensitive for application both above and below water.
- b. It shall adhere to wet concrete, steel, the FX-70® Jackets.

Filler:

The filler shall be FX-701 kiln-dried sand.

Mixing:

The binder shall be mechanically mixed in strict accordance with manufacturer's instructions.

- a. One part of binder shall be combined with a maximum of one part of filler.

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Cape Henlopen Pier Repairs
Project Number – CH-36*

- b. When mixed on a ratio of one part binder to one part filler, two-inch cubes of this material at seven days (curing at 66 to 74 degrees F) shall be 8,000 psi when tested according to ASTM C-579 Method B.
- c. The contractor shall have the option of substituting a pumpable epoxy grout.

PART 2 – SUBMITTALS

2.1. SHOP DRAWINGS

Shop drawings, showing locations of standoff spacers, method of fastening jacket form to piling, sealing the jacket after installation, and bracing during placement of materials in the annular space between the jacket and the pile, shall be prepared by the Contractor and submitted for approval prior to any field installations.

2.2. CERTIFICATION AND MATERIAL TESTS

The Contractor shall furnish a certificate to the Engineer, attesting that the materials meet all the requirements contained herein and that the system submitted has been successfully used by city, state or federal agencies for a minimum of five (5) years.

PART 3 – EXECUTION

3.1. CONSTRUCTION METHODS

All pile surfaces to be covered with pile jackets shall be thoroughly cleaned of oil, grease, dirt, broken and unsound timber, and any other deleterious material, which would prevent proper bonding. Cleaning may be accomplished by sandblasting, wet blasting, wire brushing, water laser, or other approved methods, which will yield an equivalent result. No placement of the jackets will be allowed until the pile cleaning has been approved by the grout manufacturer.

To install jackets, place trowel grade epoxy into female portion of joint, spread jacket open and place around pile; allow jacket to return to original shape engaging interlocking joint. Install self-drilling, self-tapping stainless steel screws. Once the jacket is positioned to the proper elevation, install compressible seal at the bottom of the annular void between the existing pile and the jacket. Mix and install FX-70-6 Multi Purpose Marine Epoxy binder into the bottom 4" of the annular void. Allow to cure 6 hours minimum before proceeding with cementitious grouting procedure. Cementitious grout shall be injected, pumped, or poured. Contractor to assure 100% filling of jacket without voids.

For injection, the Contractor may install multiple grout ports 5 ft c/c \pm on opposite sides of the jacket to minimize the pumping pressure. In this instance, injection shall begin at the bottom injection port. As the grout appears at the next higher port level, and it has been determined that the space between the pile and the jacket is filled to that level, the lower ports may be capped off and the injection begun at the next higher port where the grout appeared. This process is repeated from port to port until the grout reaches the top of the jacket. The injection process shall be continuous except for brief interruptions when the injector is moved from port to port, and the

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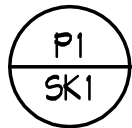
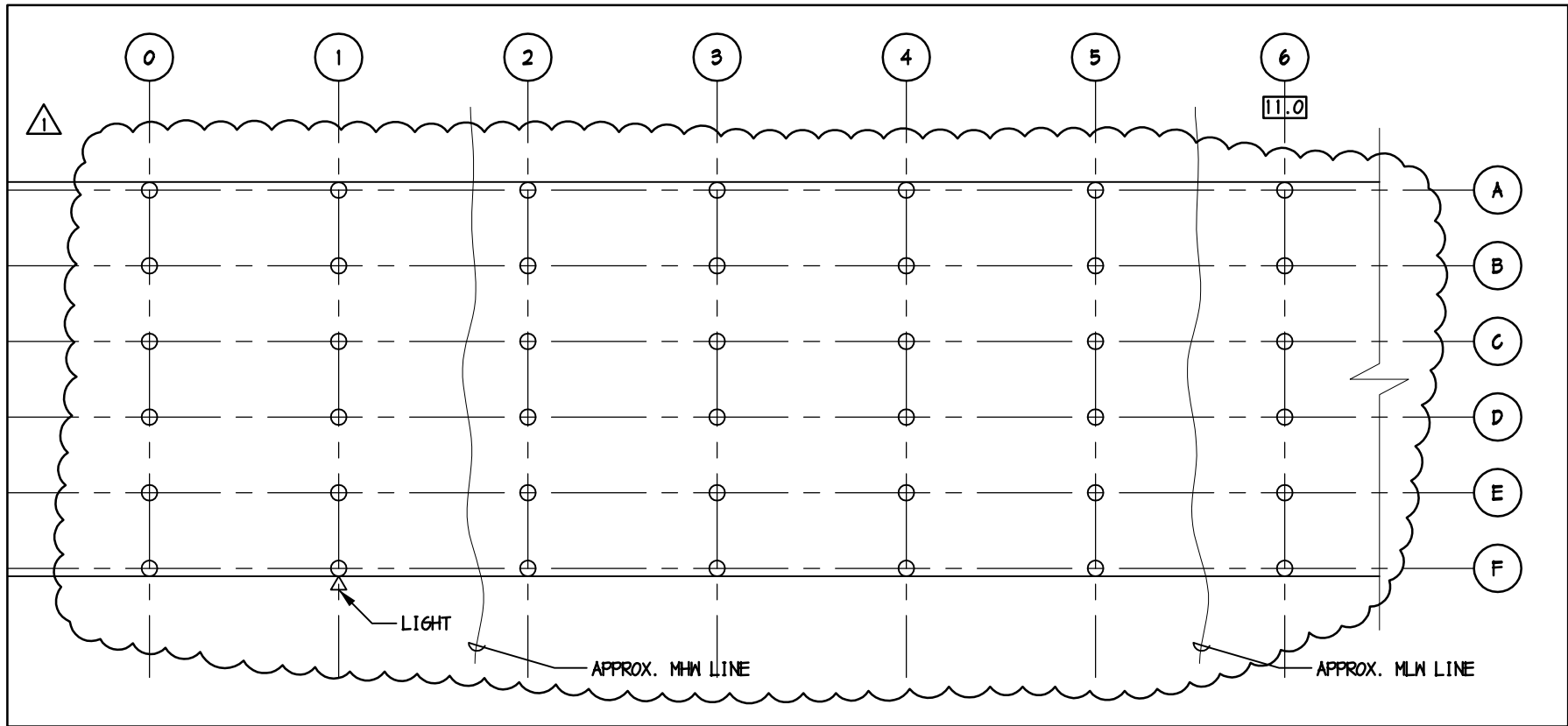
speed of the injection process shall be controlled to prevent entrapment of water or air in the grout cavity being filled.

After cementitious grouting is completed, mix and install FX-70-6 Multi Purpose Marine Epoxy into the top 4 inches of the jacket and allow to cure. The Contractor shall have the option to substitute a Hydro-Ester® Trowel Grade epoxy grout.

The bevel shall then be constructed at the top of the jacket as indicated on the plan.

External bracing materials shall be removed after completion of the work and the exterior surfaces of the jackets shall be cleaned of any filler material or other extraneous material deposited on the pile jackets.

END OF SECTION 316220



PARTIAL PILE PLAN: BENT 0-6

3/32" = 1'-0"

CAPE HENLOPEN STATE PARK

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 Elkton, Maryland

DESIGNED BY: FMY	DATE: 05-12-15
DRAWN BY: AJC	SCALE: AS NOTED
CHECKED BY: FMY	W.O.: D9303.00
DRAWING NO.: SK1	SHEET: 1 OF 1

CONTRACTOR NOTE - BID OF PILE JACKET REPAIRS SHALL BE BASED ON THE FOLLOWING:

1. ESTIMATED QUANTITY: 105 JACKETS x 10 LINEAR FEET/JACKET = 1050 LINEAR FEET OF JACKET. INCLUDE PRICE FOR 1200 LINEAR FEET OF JACKET AND ASSOCIATED WORK IN BID.
2. PAYMENT WILL BE ADJUSTED BASED ON THE ACTUAL LINEAR FOOTAGE OF JACKET INSTALLED AND ACCEPTED BY OWNER, UTILIZING THE UNIT PRICE TO BE PROVIDED BY THE CONTRACTOR ON THE BID FORM.
3. BASED ON AN APPROXIMATE AVERAGE PILE DIAMETER OF 15", THE APPROXIMATE AVERAGE JACKET DIAMETER IS 19".
4. PAYMENT WILL NOT BE ADJUSTED FOR VARIATIONS IN THE ACTUAL JACKET DIAMETER FROM THE APPROXIMATE JACKET DIAMETER.
5. PAYMENT WILL NOT BE ADJUSTED FOR VARIATIONS IN THE AMOUNT OF PILE DETERIORATION AND VOLUME OF GROUT REQUIRED.
6. PRIOR TO ORDERING JACKETS, THE AWARDED CONTRACTOR SHALL FIELD MEASURE ALL PILES TO RECEIVE JACKETS AND SUBMIT A LIST OF JACKET SIZES TO THE OWNER FOR APPROVAL.



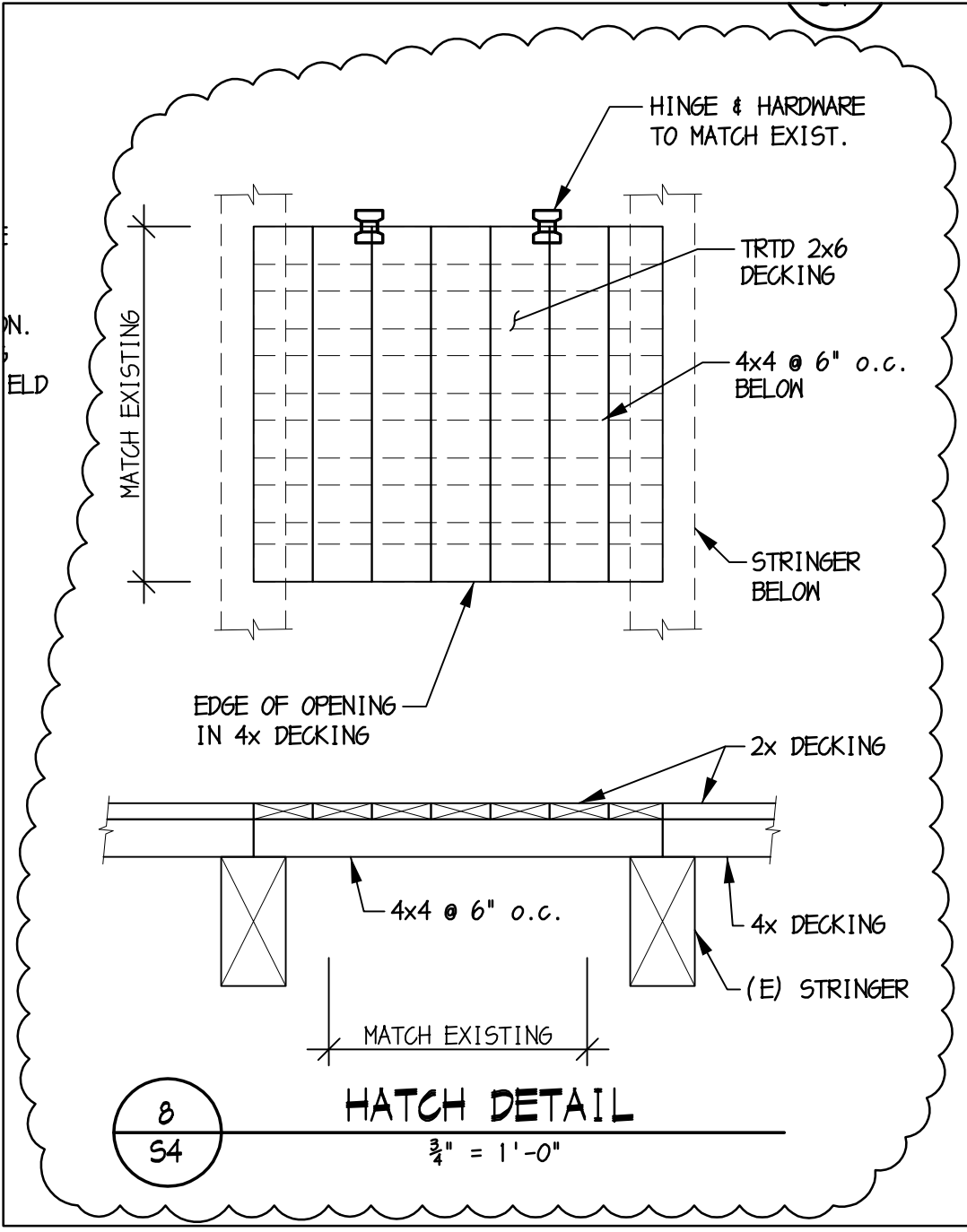
CAPE FISHING PIER




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DRAWING NO.: SK2	SHEET: 1 OF 1



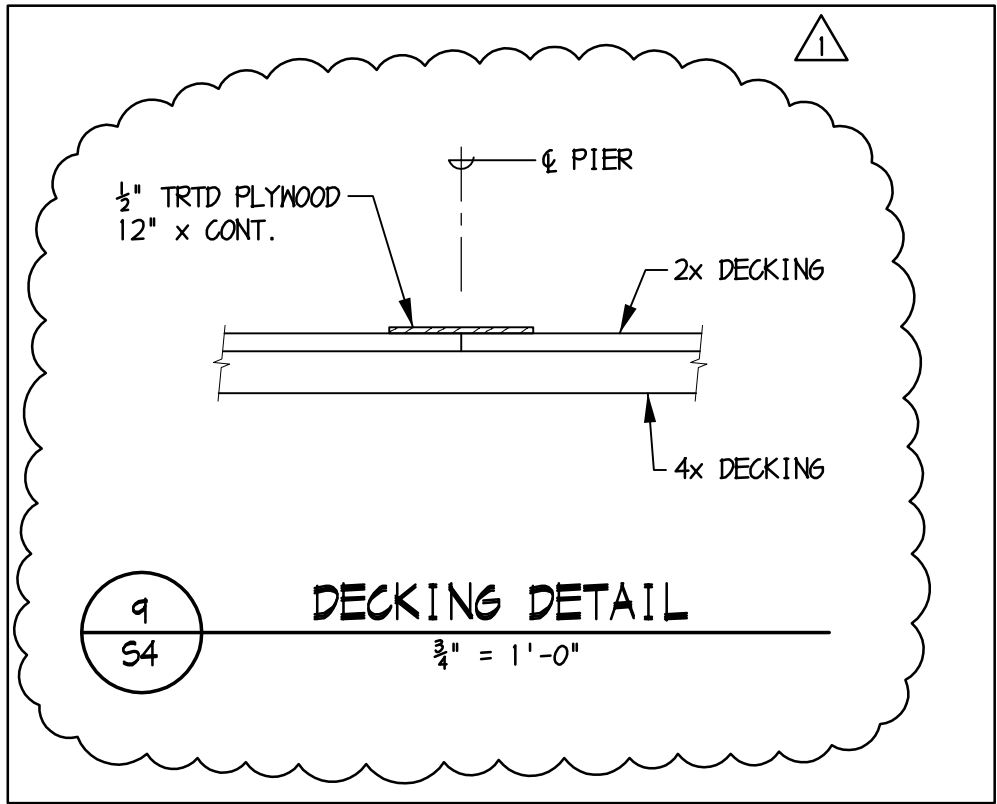
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CAPE FISHING PIER



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DRAWING NO.: SK4	SHEET: 1 OF 1