

# Request for Proposals

Pier Demolition and Reconstruction

Ferry Road Town Dock

Old Saybrook, Connecticut

## 1. Summary and Background

The Town of Old Saybrook, Connecticut, Harbor Management Commission is currently accepting bids to demolish and partially reconstruct the Town Dock located at the intersection of Ferry Road and Clark Place in Old Saybrook, Connecticut. The existing Town Dock consists of a fixed timber T shaped pier with two floating docks and associated ramps. The dock has existed at the site since its construction over sixty years ago.

The purpose of this Request for Proposal (RFP) is to solicit proposals from various qualified organizations, conduct a fair and extensive evaluation based on criteria listed herein, and select the qualified organization which will provides the highest quality/ value at the lowest cost and is consistent with the scope contained in the Plans entitled “Pier Reconstruction Old Saybrook Harbor Commission Intersection of Ferry Road & Clark Street Old Saybrook , CT” dated February 15, 2018 Sheet 1 through 8. (Copy attached as Exhibit A) the requirements of the Certificate of Permission #201702501 (copy attached as Exhibit B) , and ACOE Permit NAE-2012-00790 dated May 8, 2017 (Copy attached as Exhibit C). The referenced plans define the scope of the base bid and alternate bid. The Commission expects to also obtain an approval for a de minimis change to Exhibit B to make the scope contained in Exhibit B consistent with Exhibit A. by the time the Notice to Proceed is issued.

The Old Saybrook Harbor Management Commission is an elected commission charged with overseeing the harbor and waterfront facilities of the Town of Old Saybrook, Connecticut. Any decisions and awards made by the Town of Old Saybrook Harbor Management Commission are subject to the further approval of the Board of Selectmen.

## 2. Proposal Guidelines

This RFP represents the requirements for an open and competitive process. Proposals will be accepted until 4:30pm EST March 16, 2018. Any proposals received after this date and time will not be considered for this project. All proposals must be signed by an official agent or representative of the company submitting the proposal.

If the organization submitting a proposal must procure or subcontract any work to meet the requirements contained herein, this must be clearly stated in the proposal.

Contract terms and conditions will be negotiated upon selection of the winning bidder for this RFP. All contractual terms and conditions will be subject to review by Old Saybrook Board of

Selectmen who have the final authority to approve this project. This final authority includes scope, budget, schedule, and other necessary items pertaining to the project.

### **3. General Project Description**

The project consists of the removal of the entire existing timber pier and associated piles and the reconstruction of a portion of the pier with new timber piles. The proposed pier will be of timber construction and require the reinstallation of the existing ramps and floating docks in their current locations.

### **4. Project Scope / Scope of Supply**

The scope of this project is identified in Exhibit A, which includes the demolition of the existing dock and construction of a new dock. All work shall be completed in accordance with the attached CT DEEP COP and ACOE permit and referenced plans. The scope to be included in the proposal specifically excludes all land based work except land based work associated with the landing required for the pier extension. Also specifically excluded is all associated or referenced utility work shown in the COP. Please note, this is not intended to be all inclusive but rather identify the major work items. The selected contractor shall use its experience to identify and conduct all tasks necessary to complete the pier demolition and construction.

#### **The Base Bid Project Scope consists of:**

- A Turbidity Curtain surrounding the work area must be deployed prior to the start of work as required by the Exhibit C.
- Demolition and disposal of the existing fixed pier at an authorized disposal facility.
- Reconstruct approximately 39 Feet of 6 Foot wide Fixed Dock.
- Constructing an approximate 12 foot long 6 feet wide pier extension to shore including associated landing.
- Removal and reinstallation of two existing town owned ramps.
- Removal of two piles not associated with the fixed pier (identified on plans)
- Preparation of As-built plans as required by the regulatory permits.

#### **The Alternate Bid for this RFP consists of:**

- The base bid scope of work and the construction of an additional 30 feet of 6 Foot wide Fixed Dock as shown on Exhibit A

### **5. Request for Proposal and Project Timeline**

Prior to the due date of this RFP the Old Saybrook Harbor Management Commission will make reasonable efforts answer any questions prospective bidders may have. Question must be submitted in writing by March 7, 2018 and delivered to: First Selectman Carl P. Fortuna, Jr., 302 Main Street, Old Saybrook, CT 06475, or emailed to [carl.fortuna@oldsaybrookct.gov](mailto:carl.fortuna@oldsaybrookct.gov). . All proposals in response to this RFP are due no later than 4:30pm EST March 16,, 2018.

Evaluation of proposals will be conducted from March 19 until March 23, 2018. If additional information, meetings or discussions are needed with any bidders during this one week window, the bidder(s) will be notified.

The selection decision for the winning bidder will be made no later than March 30, 2018 at which time a notice to proceed will be issued. The Commission wishes this work to be completed as early in the boating season as practical and is targeting June 8, 2018 as a substantial completion date. The proposal should specify the date the bidder proposes to substantially complete the project. Such date will be extended day for day to the extent the notice to proceed is issued after March 30, 2018.

## **6. Project Price and Payments**

The Contract will be performed on a Lump Sum Basis. All proposals must include the bidder's proposed Lump Sum to complete all the tasks described herein, presented on Exhibit A and in accordance with the requirements contained in Certificate of Permission #201702501 (Exhibit B) and ACOE Permit (copies attached as Exhibit C). The proposed Lump Sum Cost should be itemized as follows:

Base Bid:

- Demolition of the present dock and disposal of the refuse.
- Rebuilding approximately 39 Feet of 6 Foot wide Fixed Dock as shown on Exhibit A
- Constructing an approximate 12 foot long 6 feet wide pier extension to shore including associated landing.
- Removal and reinstallation of two existing town owned ramps.
- Removal of two piles
- Preparation of As-built plans as required by the regulatory permits.

Alternate Bid for this RFP:

An additional 30 feet of 6 Foot wide Fixed Dock as shown on Exhibit A.

To the extent the bidder has suggestions for alternates to the requirements contained in the plans, those suggested alternates must be described in sufficient detail in the proposal for the Commission to understand and consider the suggested alternate. Included in the proposal should be the specific associated reduction in price and or substantial completion date. Depending on the proposed alternate, the contractor may be required to submit shop drawings for the Town's approval.

Payments will be made upon completion of each item. Invoices must be submitted on the first Monday of each month so that they can be approved at the regular Harbor Management Commission Meeting held on the second Monday of each month. A 10% retainage will be held on all payments until final acceptance of the project. Lien and claim waivers will be required for

all payments. Any change orders to the scope of work shall be made in writing and signed by the Town of Old Saybrook prior to the commencement of such work.

## **7. Miscellaneous Requirements.**

The Ferry Road Facility supports commercial fishing and as such time is of the essence to substantially complete the project.

The Project should be free of defects for 1 full year from the date the project achieves substantial completion (the warranty period). Contractor to correct all defects free of charge during the warranty period.

The selected Contractor must provide insurances as follows:

The selected Contractor shall obtain and maintain at its own cost and expense for the duration of the installation, the following insurance:

1. Worker's Compensation \$1,000,000
2. Commercial General Liability \$2,000,000
3. Commercial Auto Liability \$1,000,000 (Comprehensive General is usually associated with General Liability policies)
4. Employer's and Professional Liability must be included in "General Liability" or maintained a separate rider/policy

A Certificate of Insurance evidencing proof of insurance must be included at time of RFP. If successful, the respondent must provide the Town of Old Saybrook - Office of the First Selectman - with insurance documentation that names the Town of Old Saybrook, it's elected and appointed officials, agents, employees and commissions as an additional insured and agree to the fullest extent permitted by law to defend, indemnify, and hold harmless the Town of Old Saybrook, it's elected and appointed officials, agents, employees and commissions for any and all claims that may arise out of the negligence of the respondent. The respondents insurance policies will be primary and non-contributory. Respondent policy limits will not limit the respondent's indemnification obligations.

Proof of insurance must be included at time of RFP. If successful, the respondent must provide the Town of Old Saybrook - Office of the First Selectman - with insurance documentation that names the Town of Old Saybrook as an additional insured.

Bidders are responsible for familiarizing themselves with the site, potential constraints, and existing conditions prior to preparing their bid.

Geotechnical information to the extent it is available is provided in GNCB Consulting Engineers Report dated June 14, 2011 (Copy attached as Exhibit D).

All changes to the work must be submitted in writing by the Contractor and agreed by the Harbor Commission prior to being implemented.

## **8. Bidder Qualifications**

Bidders should provide the following items as part of their proposal for consideration:

- Description of experience and list of completed projects including references in the construction of marina docks
- Description of experience and list of completed projects including references in the construction of docks for a municipality
- Description of experience and list of completed projects including references in the construction of marina docks on the Lower Connecticut River.
- Description of your Company's resources and anticipated resources you will assign to this project (total number, role, title, experience)
- Draft schedule for completion of the project
- A description of the general project approach and execution plan.

## **9. Proposal Evaluation Criteria**

The Old Saybrook Harbor Management Commission will evaluate all proposals based on the following criteria. To ensure consideration for this Request for Proposal, your proposal should be complete and include all of the following criteria:

- Cost and Value: Bidders will be evaluated on the cost of the base and alternate bids based on the work to be performed in accordance with the scope of this project and overall value / cost of their suggested alternates (if any)
- Schedule: The Substantial Completion Date submitted by the bidder
- Previous work: Bidders will be evaluated on their previous work. Extensive experience with marina docks in the lower Connecticut River Valley is desirable.
- Technical expertise and experience: Bidders must provide descriptions and documentation of technical expertise and experience

Each bidder must submit 5 copies of their proposal to the address below by March 16, 2018 at 4:30pm EST:

Old Saybrook Harbor Management Commission  
C/O First Selectmen's Office  
Town Hall  
302 Main Street  
Old Saybrook, CT 06475

"Ferry Road Project Proposal" should be clearly printed in the lower left of the envelope. The Old Saybrook Harbor Management Commission and the Board of Selectman reserves its right to reject any and all Proposals for not being responsive to this RFP. In addition, the Old Saybrook Harbor Management Commission and the Board of Selectman reserves its right to reject all bids and rebid the Project if it its sole discretion, rebidding would result in better value for the Town.

PIER RECONSTRUCTION  
OLD SAYBROOK HARBOR COMMISSION  
INTERSECTION OF  
FERRY ROAD & CLARK STREET  
OLD SAYBROOK, CT

FEBRUARY 15, 2018

LIST OF DRAWINGS

DRAWING NO.	DRAWING NAME
1	TITLE SHEET, DRAWING LIST & VICINITY MAP
2	PROJECT NOTES
3	EXISTING SITE PLAN
4	EXISTING PARTIAL DEMOLITION PLAN AND SECTIONS
5	PIER RECONSTRUCTION PLAN AND SECTIONS
6	PIER DECK, FRAMING & PILE PLANS
7	PIER SECTIONS & DETAILS
8	BID ADD-ON DETAILS



KEITH B. NELSON, P.E.  
PO BOX 421 MYSTIC, CT 06355  
860 572-8939 FAX: 572-7569  
EMAIL: office@docko.com



COASTAL ENGINEERING

611 Access Road Stratford, CT 06615  
Tel: 203-377-0663 www.racecoastal.com

OWNERSHIP AND CONDITIONS OF USE:

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

REVISIONS:

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:



PREPARED FOR:

OLD SAYBROOK  
HARBOR COMMISSION  
302 MAIN STREET  
OLD SAYBROOK, CT 06475

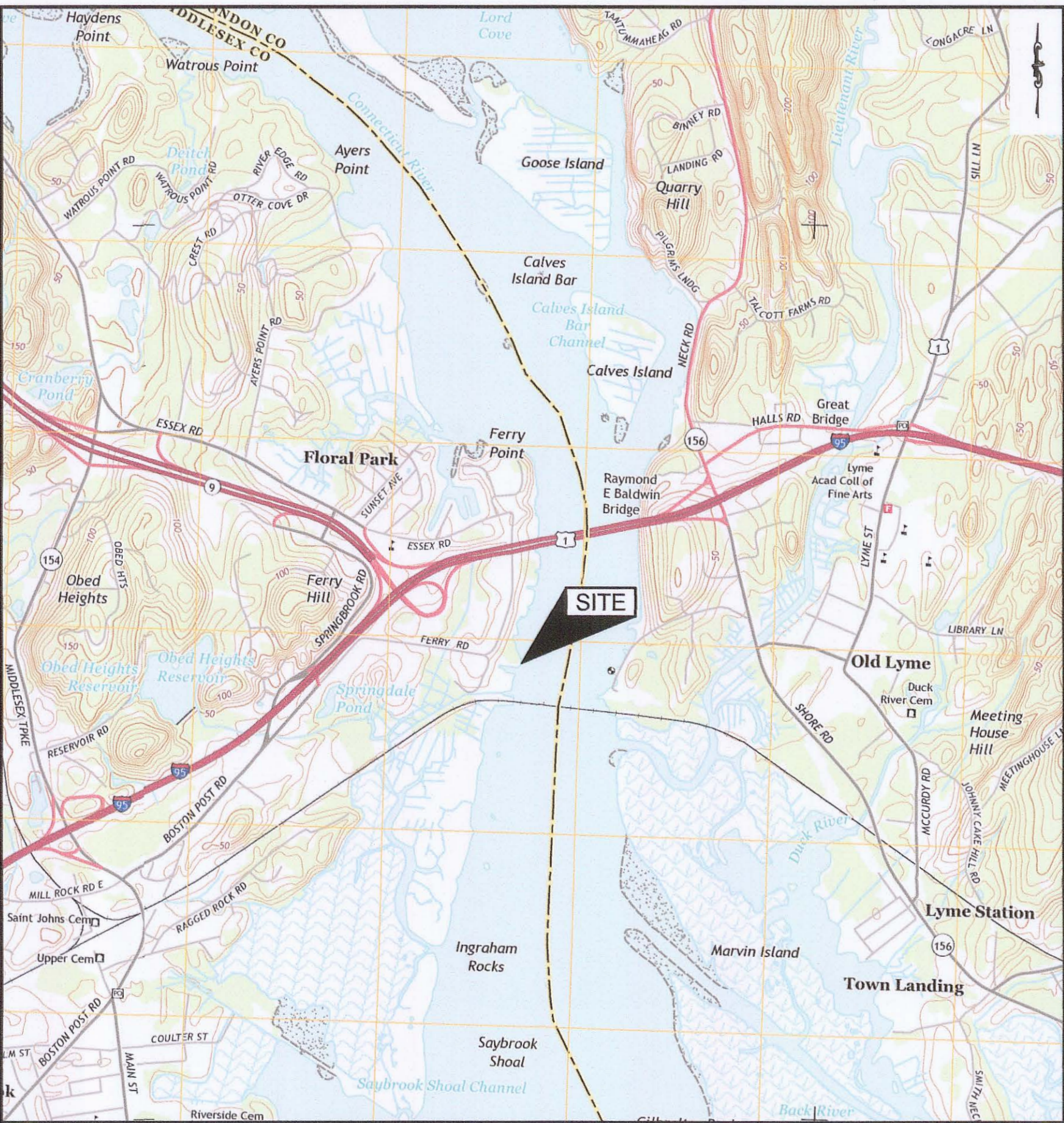
PROJECT:

PIER RECONSTRUCTION  
INTERSECTION OF  
FERRY ROAD & CLARK STREET  
OLD SAYBROOK, CT 06475

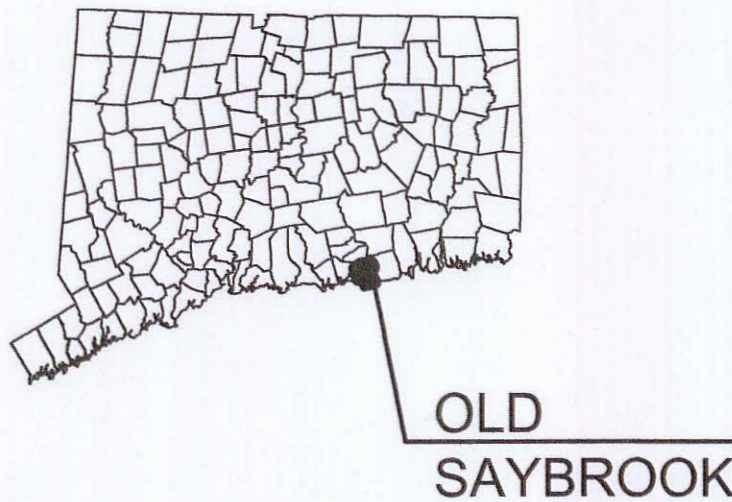
DRAWING:

TITLE SHEET,  
DRAWING LIST &  
VICINITY MAP

Designed By:	CGE	Date:	02/15/2018
Drawn By:	CLW	Scale:	N/A
Checked By:	DJS	Project Number:	2018004
CAD File:	2018004 - CONSTRUCTION.DWGSET 20180215 ISSUED TO CLIENT.DWG	Drawing No.:	1 of 8



VICINITY MAP



OLD  
SAYBROOK



AERIAL PHOTO

X:\Projects\2018\2018004 - Docko Old Saybrook\_Plan\6 Drawings\Construction Drawings\2018004 - \_ ConstructionDwgSet\_20180215 - \_ IssuesToClient.dwg 02 - \_ Notes Corrie Weiler Thu, 15 Feb 2018 - 9:19am

PROJECT NOTES

DESCRIPTION OF WORK:

- 1. THE WORK COVERED UNDER THESE CONTRACT DOCUMENTS, INCLUDING THE DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS AND ALL AMENDMENTS, CONSISTS OF PROVIDING ALL PLANT, LABOR, SUPERVISION, EQUIPMENT, APPLIANCES AND MATERIALS AND IN PERFORMING ALL OPERATIONS IN CONNECTION WITH AT LEAST, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING ITEMS:
  - REMOVAL OF EXISTING DECKING, TIMBER PILES, AND REMAINING TIMBER FRAMING
  - FURNISH AND INSTALL FOUNDATION AND FENDER PILES
  - FURNISH AND INSTALL TIMBER STRUCTURE AND DECKING

- 2. THE CONTRACTOR SHALL PROVIDE ALL ITEMS AND ACCESSORIES REQUIRED TO COMPLETE ALL ASPECTS OF THE WORK NEEDED FOR A COMPLETE AND PROPER INSTALLATION, ALL IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 3. THIS PROJECT IS TO RECONSTRUCT A PIER FOR BOAT BERTHING AND VESSEL LOADING/UNLOADING. IT IS NOT A PUBLIC ACCESS PIER.
- 4. CONTRACTOR SHALL VISIT AND VERIFY EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID.

GENERAL NOTES:

- 1. THE TIMBER PIER HAS BEEN DESIGNED FOR THE FOLLOWING LOAD CRITERIA:
  - A. LIVE LOAD OF 100 PSF.
  - B. THE SITE IS MAPPED ON FEMA FIRM NO. 090001C0353J EFFECTIVE 2/6/2013 AS A ZONE AE (BFE = 12.0 FEET MLW/11 FEET NAVD 88)
  - C. 1% ANNUAL CHANCE OF FLOOD WITH A DESIGN STILLWATER ELEVATION OF +11.0' MLW (+4.2' NAVD88) AND LATERAL LOAD OF 206 POUNDS PER FOOT ON THE PIER.
  - D. 50 KNOT WINDS ON 25 AND 35 FOOT LONG VESSELS
  - E. 1 KNOT CURRENT ON 25 AND 35 FOOT LONG VESSELS
  - F. DOLPHIN FENDER PILE DESIGNED FOR 2000 POUND HORIZONTAL LOAD REPRESENTING A 35 FOOT LONG VESSEL (WITH MAX 30,000 POUND ESTIMATED WEIGHT) APPROACHING AT 2 FT/SEC IN LINE WITH THE BATTER PILE.
  - G. 2'-0" OF SCOUR (MAX DESIGN SCOUR TO EL -5' MLW)
  - H. MAX REACTION OF GANGWAY AT STRINGER OF 1500#/FT OVER A 4' WIDE GANGWAY, MAX 1.5' FROM EDGE GANGWAY TO STRINGER STRUCT.
- 2. WORK SHALL BE IN ACCORDANCE WITH THESE PROJECT SPECIFICATIONS.
- 3. IF, DURING THE PERFORMANCE OF THE WORK, THE CONTRACTOR FINDS A CONFLICT, ERROR, OR DISCREPANCY IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SO REPORT TO THE ENGINEER IN WRITING AT ONCE, BEFORE PROCEEDING WITH THE WORK. AFFECTED THEREBY, THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION OR CLARIFICATION FROM THE ENGINEER. ANY WORK DONE BEFORE THE ENGINEER RENDERS HIS DECISION IS AT THE CONTRACTOR'S SOLE RISK.
- 4. ALL ELEVATIONS ARE REFERENCED TO MEAN LOW WATER (MLW).
- 5. SITE PLAN BASED ON SURVEY TITLED "TOPOGRAPHIC SURVEY, PROPERTY OF TOWN OF OLD SAYBROOK, FERRY ROAD, OLD SAYBROOK, CONNECTICUT" PREPARED BY RESOURCE MANAGEMENT AND MAPPING, DATED 04-06-16.
- 6. ALL WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND STATUTES AND THE REQUIREMENTS AND CONDITIONS OF ALL REGULATORY PERMITS ISSUED FOR THE WORK.
- 7. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE PROJECT REGULATORY PERMITS AND ALL CONDITIONS OF THOSE PERMITS. THE CONTRACTOR IS ADVISED THAT THE REGULATORY PERMITS FOR THIS PROJECT MAY CONTAIN ADDITIONAL REQUIREMENTS THAT, AFTER ANY ADDENDUM, SUPERSEDE THE DRAWING NOTES. THE CONTRACTOR IS FURTHER ADVISED THAT IN THE CASE OF ANY DISCREPANCIES WITHIN THE CONTRACT DOCUMENTS FOUND BEFORE CONSTRUCTION, THE FINAL DECISION AS TO WHAT INFORMATION TAKES PRECEDENCE WILL BE MADE BY THE ENGINEER OF RECORD ON THE BASIS OF THAT INTENT. CONTRACTOR SHALL NOT CONSTRUCT ANY PORTION OF THE WORK THAT HAS NOT BEEN AUTHORIZED BY REGULATORY AGENCIES.
- 7.1. WORK DEPICTED ON THESE DRAWINGS VARIES FROM CURRENT EXISTING PERMITS (GT DEEP CERTIFICATE OF PERMISSION #2010202501, U.S. ARMY CORPS OF ENGINEERS, AND LOCAL ZONING APPROVAL). THE PERMITS ARE TO BE MODIFIED BY DOCKO, INC. TO REFLECT THE ACTUAL WORK. THE CONTRACTOR SHALL NOT COMMENCE WORK PRIOR TO BEING PROVIDED BY THE OWNER COPIES OF UPDATED PENDING PERMITS APPLICABLE SPECIFICALLY TO THE WORK DEPICTED ON THESE DRAWINGS.
- 8. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND FABRICATION OR ORDERING OF ANY CONSTRUCTION MATERIALS.
- 9. ALL SECTIONS AND DETAILS APPLY TO SAME AND SIMILAR CONDITIONS UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
- 10. DAMAGE TO ANY PROPERTY, PRIVATE OR OF PUBLIC TRUST, OCCURRING DURING THE CONSTRUCTION BY THE CONTRACTOR, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE EXPENSE OF THE CONTRACTOR.
- 11. THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS.
- 12. THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK. ALL OPERATORS SHALL BE DULY LICENSED AND COMPETENT TO OPERATE EQUIPMENT TO WHICH THEY ARE ASSIGNED.
- 13. THE CONTRACTOR SHALL USE EQUIPMENT ADEQUATE IN SIZE, CAPACITY, AND NUMBERS, AND MAINTAINED TO THE REQUIREMENTS OF ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS TO ACCOMPLISH THE WORK.
- 14. THE CONTRACTOR SHALL PROTECT ALL WETLANDS AND COASTAL RESOURCES FROM INTRUSION BY TURBID WATERS, CONSTRUCTION DEBRIS, CONSTRUCTION EQUIPMENT, OR PERSONNEL DURING ALL WORK ACTIVITIES.
- 15. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, LICENSES, CERTIFICATES OF INSPECTION, AND PAY ALL LEGAL FEES IN CONNECTION WITH THE WORK OF THIS CONTRACT. CONTRACTOR SHALL CARRY COSTS FOR TOWN OF OLD SAYBROOK BUILDING PERMIT FEES IN BID, SUCH FEES ISSUED BY THE TOWN WILL BE PAID BY CONTRACTOR. THE OWNER WILL OBTAIN NECESSARY REGULATORY PERMITS REQUIRED FOR THE WORK IN REGULATED AREAS. THE CONTRACTOR SHALL REQUEST COPIES OF THOSE REGULATORY PERMITS AND MAKE PROVISION IN THIS WORK AND IN THE COST OF THE WORK FOR ALL APPLICABLE CONDITIONS OF THOSE PERMITS. FAILURE TO CONSIDER ANY CONDITION OF THE REGULATORY PERMITS AS A PART OF THE BID SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO APPLY THOSE CONDITIONS TO HIS WORK AT NO ADDITIONAL COST TO THE OWNER.

- 16. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT FROM DAMAGE ALL UTILITIES, UTILITY STRUCTURES, FUEL LINES & TANKS OR ANY UNKNOWN UTILITIES OR STRUCTURES PRIOR TO ANY WORK.
  - 16.1. CONTRACTOR SHALL CALL CALL BEFORE YOU DIG AND PROVIDE COPY OF VERIFICATION TICKET TO OWNER.

PROJECT LAYOUT:

- 1. THE CONTRACTOR SHALL HIRE A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT TO LAYOUT THE PROPOSED FACILITY IMPROVEMENTS PRIOR TO THE START OF CONSTRUCTION AND PROVIDE THE OWNER WITH AN "AS-BUILT" DRAWING OF THE WORK CONFORMING TO A-2 AND T-2 STANDARDS FOLLOWING THE COMPLETION OF FACILITY IMPROVEMENTS. THE COSTS FOR SUCH ITEMS SHALL BE INCLUDED IN THE CONTRACT SUM FOR THE WORK.
- 2. ANY STRUCTURES NOT CONSTRUCTED IN THE POSITIONS DEPICTED ON THE PROJECT PLANS SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

DEMOLITION & DISPOSAL:

- 1. CONTRACTOR SHALL DEMOLISH AND REMOVE FROM SITE ALL ITEMS LISTED ON DEMOLITION SCHEDULE AND/OR REQUIRED FOR THE CONSTRUCTION OF THE PROJECT INCLUDING ASSOCIATED UTILITIES AND ANCILLARY ITEMS.
- 2. ALL DEBRIS AND DEMOLITION MATERIALS REMOVED FROM THE SITE (BUT NOT FLOATING DOCKS AND GANGWAYS) SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHO WILL REMOVE THEM FROM THE SITE. CONTRACTOR SHALL LEGALLY DISPOSE OF SUCH MATERIAL AND RETAIN ALL MANIFESTS AND DOCUMENTATION FOR DISPOSAL OPERATIONS. SUCH DOCUMENTATION SHALL BE MADE AVAILABLE TO THE OWNER UPON REQUEST.

STEEL FASTENERS:

- 1. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE "MANUAL OF STEEL CONSTRUCTION - ASD", NINTH EDITION, AS ADOPTED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
- 2. WELDING SHALL CONFORM TO THE "STRUCTURAL WELDING CODE FOR STEEL" LATEST EDITION, AS ADOPTED BY THE AMERICAN WELDING SOCIETY (AWS). ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH AWS STANDARDS.
- 3. CONNECTIONS SHALL BE DESIGNED BY A STEEL FABRICATOR EXCEPT THOSE SPECIFICALLY DETAILED ON THE CONTRACT DOCUMENTS.
- 4. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE "MANUAL OF STEEL CONSTRUCTION - ASD", NINTH EDITION, AS ADOPTED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
- 5. STRUCTURAL STEEL MATERIALS SHALL MEET THE FOLLOWING REQUIREMENTS:

STEEL SECTIONS AND MISC: ASTM A992 GRADE 50 UNLESS OTHERWISE NOTED. STAINLESS STEEL TO BE 316 GRADE.

WELD RODS: ASTM A233, E70XX SERIES ELECTRODES AS REQUIRED FOR CONDITIONS OF INTENDED USE.

STEEL FASTENERS:

- BOLTS: ASTM A307 WITH TIMBER-STYLE HEADS, DIAMETER AS NOTED ON PLANS OTHERWISE NOT LESS THAN 3/4"φ UNLESS OTHERWISE NOTED. LAG BOLTS TO BE HEX HEAD
- NUTS: ASTM A563 WITH HEX HEADS
- WASHERS: ROUND PLATE OR Ogee TYPE, PROVIDE BEVELED WASHERS FITTED FOR INCLINED BOLTS.

- 6. ALL STEEL INCLUDING BOLTS, NUTS, WASHERS, AND FABRICATIONS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 AND MEET MINIMUM TESTS OF ASTM A239, UNLESS OTHERWISE NOTED.
- 7. ALL BOLTS AND NUTS SHALL BEAR ON WASHERS.
- 8. AFTER NUTS HAVE BEEN TIGHTENED, THERE SHALL BE 1/4" OF EXPOSED THREAD BEYOND THE NUT. TOUCH-UP FOR CUT BOLTS SHALL BE PERFORMED WITH TNEMEC 90-97 TNEME-ZINC PRIMER OR EQUIVALENT ACCEPTED BY THE ENGINEER. SURFACE PREPARATION AND COATING APPLICATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

TIMBER CONSTRUCTION:

- 1. THE WORK COVERED UNDER THIS SECTION INCLUDES, BUT IS NOT NECESSARILY LIMITED TO; PILE CAPS, STRINGERS, DIAGONAL BRACING, WALES, CHOCKS, CURBING AND BLOCKING.
- 2. ALL VISUALLY GRADED STRUCTURAL LUMBER AND WOOD CONSTRUCTION SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (ANSI/NFPA NDS - LATEST EDITION), ITS SUPPLEMENT, AND COMMENTARY BY THE AMERICAN FOREST & PAPER ASSOCIATION / AMERICAN WOOD COUNCIL.
- 3. TIMBER SHALL MEET THE REQUIREMENTS OF THE SOUTHERN PINE INSPECTION BUREAU INSPECTION RULES, LATEST EDITION FOR SOUTHERN YELLOW PINE NO. 2 GRADE MINIMUM
  - 3.1. DECKING AND TIMBER EXPOSED TO ACCESS SHALL BE, 'DRESSED' SAWN FOUR SIDES (S4S).
  - 3.2. STRINGERS, CAPS, CROSS-BRACING, BLOCKING AND OTHER TIMBER NOT EXPOSED MAY BE ROUGH CUT.
  - 3.3. DIMENSIONS NOTED FOR TIMBER ARE NOMINAL.
- 4. NO LATER THAN THE TIME OF DELIVERY OF MATERIALS TO THE SITE, CONTRACTOR SHALL SUBMIT CERTIFICATES AS TO CONFORMANCE WITH THE SPECIFIED SPECIES, GRADE, AND TREATMENT PRIOR TO INSTALLATION OF ANY VISUALLY GRADED STRUCTURAL LUMBER.
- 5. TIMBER SHALL BE HANDLED CAREFULLY, WITHOUT SUDDEN DROPPINGS, BREAKING OF OUTER FIBERS, BRUISING OR PENETRATING THE SURFACE WITH TOOLS.
- 6. ALL TIMBER SHALL BE CUT AND FRAMED TO A CLOSE FIT IN SUCH A MANNER THAT THE JOINTS SHALL HAVE FULL CONTACT BETWEEN PLIES OR MEMBERS. NO SHIMMING WILL BE PERMITTED IN MAKING JOINTS NOR WILL OPEN JOINTS BE ACCEPTED.

- 7. STRINGERS, BLOCKING, PILE CAPS, & BRACING SHALL BE PRESSURE TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVER'S ASSOCIATION (AWPA) SPECIFICATION 6 WITH A CHROMATED COPPER ARSENATE (CCA) PRESERVATIVE TO A RETENTION OF THE AMOUNT THAT IS INDICATED IN THE FOLLOWING TABLE:

MEMBER	CCA RETENTION LBS/FT <sup>3</sup>
STRINGERS	0.6
BLOCKING	0.6
PILE CAPS	2.5
BRACING	2.5

- 8. ALL CUT ENDS & DRILL HOLES SHALL BE COATED WITH TENINO COPPER NAPHTHANATE SOLUTION, BY COPPER CARE WOOD PRESERVATIVES, INC. OR OTHER COPPER NAPHTHANTE SOLUTION WITH NO LESS THAN 2% COPPER METAL CONTENT, AS APPROVED BY THE ENGINEER.
- 9. ALL MATERIAL SHALL BE SOUND, WELL SEASONED, AND STRAIGHT GRAINED, FREE FROM SHAKES AND LARGE OR LOOSE KNOTS, AND SHALL HAVE NO DECAYED WOOD, WORM HOLES, OR ANY OTHER DEFECTS WHICH THE OWNER DETERMINES WILL IMPAIR ITS STRENGTH OR DURABILITY.

- 10. PIECES OF EXCEPTIONALLY LIGHT WEIGHT WILL NOT BE ACCEPTED.

- 11. ALL MATERIAL SHALL BE STORED OFF OF THE GROUND IN MANNER TO PREVENT DAMAGE AND TO PERMIT EASY INSPECTION.

- 12. THE CONTRACTOR SHALL PROVIDE CONTINUOUS ICE AND WATER SHIELD BARRIER ON TOP SURFACE OF ALL DECK FRAMING. EXTEND ICE AND WATER SHIELD AT LEAST 4 INCHES AROUND THE EDGES OF EACH MEMBER.

- 13. HOLES FOR BOLTS IN WOOD SHALL BE BORED WITH A BIT 1/8" LARGER THAN THE BOLT DIAMETER. ALIGNMENT OF BOLT HOLES SHALL ALLOW INSERTION BY TAPING, DRIVING IS NOT ALLOWED. DRILL BITS SHALL BE KEPT SHARP, PRODUCING SHAVINGS NOT CHIPS, THIS MINIMIZING DAMAGE TO THE WOOD.

- 14. FILL ALL COUNTERBORE HOLES WITH A788 SPLASH ZONE EPOXY MASTIC BY CARBOLINE COMPANY.

DECKING:

- 1. DECKING SHALL BE 3x6 (NOM) SOUTHERN YELLOW PINE (SYP) NO. 2 S4S MATERIAL, MCA TREATED TO 0.07 PCF.
- 2. SYP DECKING SHALL BE FASTENED TO EACH STRINGER 1-1/2" FROM EA. EDGE USING 12 GAUGE 6" LONG 316 S.S. FLAT HEAD SCREWS.
- 3. SCREW HOLES SHALL BE PRE-DRILLED WITH A 5/8" LEAD HOLE. LEAD HOLE SHALL BE NO LONGER THAN THE SCREW EMBEDMENT.
- 4. LEAD HOLE SHALL BE COUNTER-SUNK TO ASSURE THAT SCREW HEAD IS FLUSH WITH THE FINISHED DECK SURFACE.
- 5. DECK WOOD SHALL BE STORED IN A CLEAN, DRY, WEATHER PROTECTED LOCATION PRIOR TO INSTALLATION. NO DENTED, STAINED, TWISTED, OR DAMAGED MATERIAL SHALL BE INCORPORATED INTO THE WORK. DECK BOARDS SHALL BE SET EVEN AND FLUSH.
- 6. TOP OF DECK BOARDS SHALL BE FLUSH WITH ADJACENT DECK BOARDS. MAXIMUM ACCEPTABLE DIFFERENCE BETWEEN ADJACENT DECK BOARDS IS 1/8". DEVIATION EXCEEDING THIS AMOUNT SHALL BE CORRECTED BY THE CONTRACTOR. MEANS OF CORRECTING DEVIATION SHALL BE SUBJECT TO THE ENGINEER'S ACCEPTANCE.
- 7. DECKING SHALL BE PLACED SUCH THAT GROWTH RINGS ARE ORIENTED CONCAVE DOWNWARD.

TIMBER PILES:

- 1. TIMBER PILES SHALL CONFORM TO ASTM D25 INCLUDING ALL DIMENSIONAL AND QUALITY TOLERANCES, WITH THE FOLLOWING MINIMUM DIMENSIONS:
  - LENGTH: 10'
  - BUTT CIRCUMFERENCE PER ASTM D25 FOR NOTED LENGTH AND TIP DIMENSIONS
  - TIP CIRCUMFERENCE = 22"
  - TIP DIAMETER = 7"
- 2. TIMBER PILES SHALL BE SOUTHERN YELLOW PINE (S.Y.P.) TREATED WITH CCA TO A FINAL NET RETENTION OF NOT LESS THAN 2.5 PCF IN ACCORDANCE WITH AWPA SPECIFICATION 6.
- 3. NO LATER THAN THE TIME OF DELIVERY OF MATERIALS TO THE SITE, CONTRACTOR SHALL SUBMIT CERTIFICATES AS TO CONFORMANCE WITH THE SPECIFIED SPECIES, GRADE, AND TREATMENT PRIOR TO INSTALLATION OF ANY TIMBER PILES.
- 4. CUT ENDS AND SURFACES OF PILES SHALL BE COATED WITH TENINO COPPER NAPHTHANATE SOLUTION, BY COPPER CARE WOOD PRESERVATIVES, INC. OR OTHER COPPER NAPHTHANTE SOLUTION WITH NO LESS THAN 2% COPPER METAL CONTENT, AS APPROVED BY THE ENGINEER.
- 5. CONTERSUNK BOREHOLES SHALL BE FILLED WITH A788 SPLASH ZONE EPOXY MASTIC BY CARBOLINE COMPANY.
- 6. PILE CUT-OFF AND DAPPED SURFACES FOR PIER FOUNDATION PILES SHALL BE COVERED WITH ICE AND WATER SHIELD EXTENDING AT LEAST 3 INCHES DOWN THE PILE.
- 7. SPLICING OF PILES IS PROHIBITED.

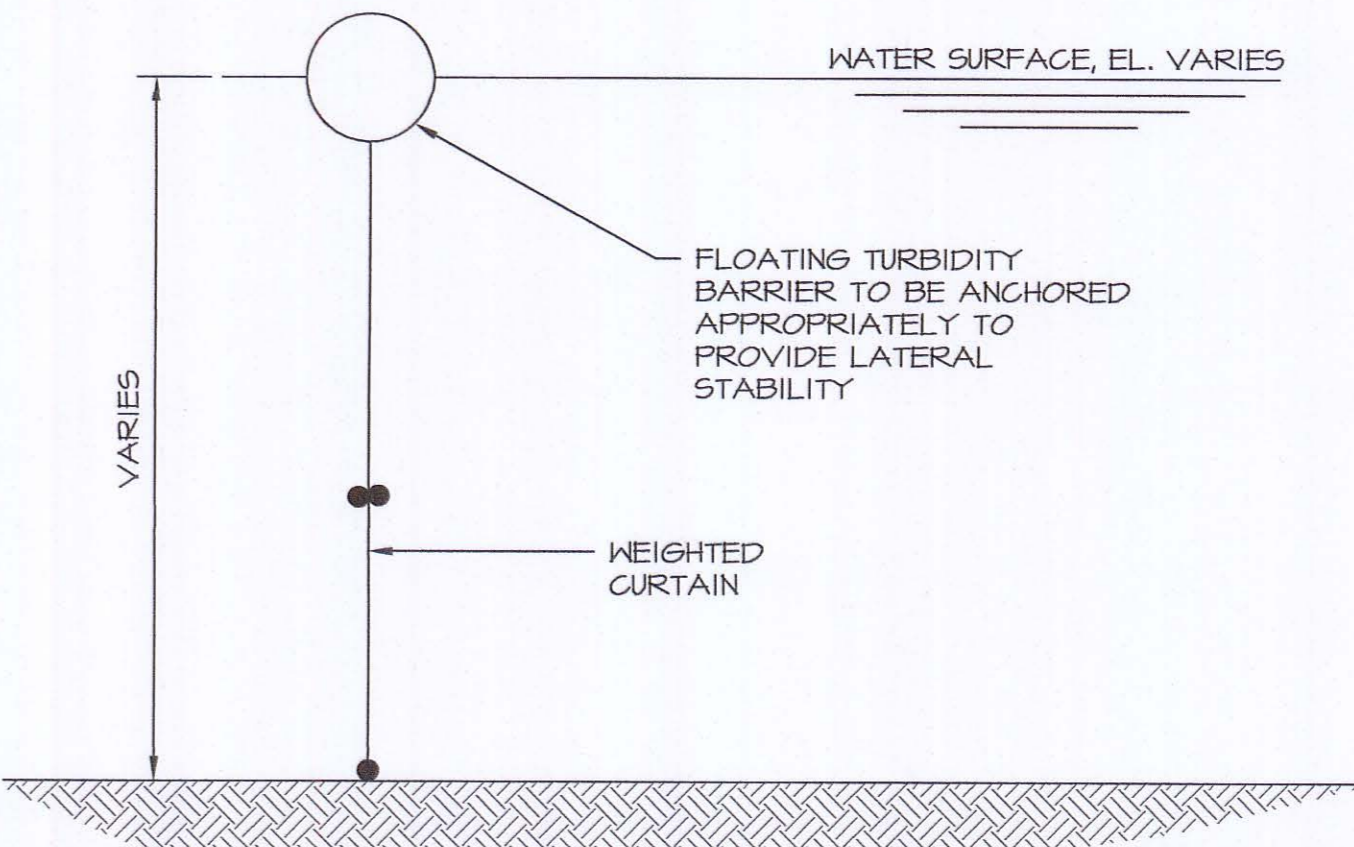
PILE INSTALLATION - VIBRATORY & IMPACT DRIVING:

- 1. DRIVEN PILES SHALL HAVE A "SAFE LOAD" AS NOTED BELOW, AS DETERMINED BY THE ENGINEERING NEWS FORMULA EQUATION. AN IMPACT HAMMER WITH A KNOWN RATING WILL BE REQUIRED TO VERIFY THIS CAPACITY. IMPACT HAMMER SPECIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO PILE INSTALLATION. PILES SHALL ALSO BE DRIVEN TO A MINIMUM EMBEDMENT AS NOTED IN NOTE 2 (WHICHEVER IS DEEPER).
  - 1.1. TIMBER FOUNDATION PILES: 12 TONS
- 2. PILES SHALL BE DRIVEN TO A MINIMUM EMBEDMENT BELOW GRADE OF 40 FEET.
- 3. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF THE ABOVE CRITERIA IS NOT ABLE TO BE MET DUE TO SUBSURFACE CONDITIONS.

- 4. EQUIPMENT AND METHODS FOR INSTALLING PILES SHALL BE SUCH THAT PILES ARE INSTALLED IN THEIR PROPER POSITION AND ALIGNMENT.
- 5. PILES SHALL BE DRIVEN WITHIN 3 INCHES OF THE POSITIONS INDICATED ON THE DRAWINGS. PILES SHALL BE DRIVEN STRAIGHT AND TRUE WITH DEVIATION FROM LONGITUDINAL ACCESS PLUMBNESS OF NOT MORE THAN 2%.
- 6. ALL PILES SHOWING SIGNS OF HEAVING OR LIFTING, OR PILES INSTALLED IN THE WRONG LOCATION SHALL BE EXTRACTED AND REINSTALLED TO THE EMBEDMENT DEPTH AND LOCATION AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
- 7. THE PILE DRIVING HAMMER SHALL BE OF SUITABLE SIZE FOR THE PROPER INSTALLATION OF THE PILE AND SHALL BE CAPABLE IN ANY CASE OF DELIVERING AN ENERGY PER BLOW AS REQUIRED BY APPROPRIATE DRIVING RESISTANCE REQUIREMENTS.
- 8. SUITABLE ANVILS OR CUSHIONS SHALL BE USED TO PREVENT DAMAGE TO THE PILES AS REQUIRED. ANVIL OR CUSHION TYPES SHALL BE CHOSEN BASED ON THE PILE SIZE AND MATERIAL SCHEDULED FOR INSTALLATION. THE CUSHIONS USED SHALL PROVIDE ENOUGH PROTECTION TO PREVENT DAMAGE TO THE PILE, BUT SHALL NOT ABSORB A SIGNIFICANT AMOUNT OF ENERGY FROM THE HAMMER BLOW.
- 9. THE BUTT ENDS OF THE PILES SHALL BE CUT SQUARE WITH THE AXIS, EDGES CHAMFERED, AND, IF NECESSARY, STEEL BANDS OR CAPS SHALL BE USED WHILE DRIVING.
- 10. THE CONTRACTOR SHALL INSTALL STEEL DRIVING SHOES ON THE TIPS OF ALL PILING. CONTRACTOR TO SUBMIT CUT SHEET OF DRIVING SHOE TO THE ENGINEER FOR APPROVAL.
- 11. PILES WHICH ARE DAMAGED AND HAVE HEADS WHICH SPLIT, BROOM, CRACK, OR CRUSH DURING DRIVING, SHALL BE REMOVED AND DISPOSED OFF-SITE AND REPLACED WITH NEW PILES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR REPLACEMENT PILES AND INSTALLATION.
- 12. PILE DRIVING SHALL BE CONTINUOUS FOR EACH PILE UNTIL THE RESISTANCE REQUIRED TO DEVELOP THE CAPACITY OF THE PILE IS ACHIEVED OR UNTIL THE MINIMUM EMBEDMENT DEPTH IS REACHED, WHICHEVER IS DEEPER.
- 13. THE CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF EACH PILE DRIVEN. THE RECORDS SHALL GIVE THE BUTT AND TIP DIAMETERS, LENGTH, DESIGN CAPACITY, PENETRATION UNDER THE LAST-BLOWS OF THE HAMMER, BEHAVIOR DURING DRIVING, CUT-OFF LENGTHS, RESULTS OF ANY TESTS, DRILLING OR FRAMING INFORMATION IF ANY, AND ALL OTHER INFORMATION REGARDING EACH PILE DRIVEN. THESE RECORDS SHALL BE SUBMITTED TO THE ENGINEER ON A DAILY BASIS.
- 14. JETTING OF PILE IS PROHIBITED.

EROSION & SEDIMENTATION CONTROLS:

- 1. PRIOR TO MOBILIZATION, EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED.
- 2. CONTRACTOR TO COORDINATE EROSION AND SEDIMENT CONTROL MEASURES WITH PERMIT REQUIREMENTS AND PROVIDE TURBIDITY CURTAIN WHERE REQUIRED.
- 3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", JANUARY 1985.
- 4. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
- 5. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD AS NECESSARY AND REQUIRED.
- 6. THE CONTRACTOR SHALL UTILIZE APPROVED METHODS/MATERIALS FOR PREVENTING THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES ONTO ADJACENT PROPERTIES AND SITE AREAS, AND INTO ADJACENT TIDAL WATERS.
- 7. THE CONTRACTOR SHALL MAINTAIN AN ADDITIONAL SUPPLY OF EROSION & SEDIMENTATION CONTROL ON SITE FOR EMERGENCY PURPOSES.
- 8. THE CONTRACTOR SHALL PROVIDE A PROJECT SPECIFIC PLAN FOR THE INSTALLATION AND MAINTENANCE OF SEDIMENTATION AND EROSION CONTROL MEASURES FOR THE PROJECT SITE AND SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF ALL CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.



WEIGHTED TURBIDITY CURTAIN DETAIL

NOT TO SCALE



KEITH B. NELSON, P.E.  
PO BOX 421 MYSTIC, CT 06355  
860 572-8939 FAX: 572-7569  
E-MAIL: office@docko.com



COASTAL ENGINEERING

611 Access Road Stratford, CT 06615  
Tel: 203-377-0663 www.racecoastal.com

OWNERSHIP AND CONDITIONS OF USE:

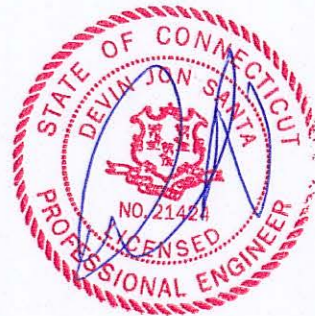
Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

REVISIONS:

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:



PREPARED FOR:

OLD SAYBROOK  
HARBOR COMMISSION  
302 MAIN STREET  
OLD SAYBROOK, CT 06475

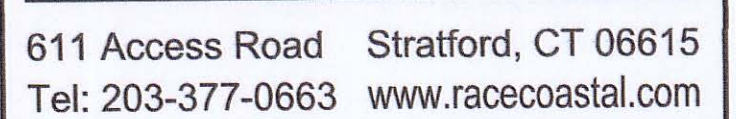
PROJECT:

PIER RECONSTRUCTION  
INTERSECTION OF  
FERRY ROAD & CLARK STREET  
OLD SAYBROOK, CT 06475

DRAWING:

PROJECT NOTES

Designed By:	CGE	Date:	02/15/2018
Drawn By:	CLW	Scale:	N/A
Checked By:	DJS	Project Number:	2018004
CAD File:	2018004 CONSTRUCTION.DWGSET	Drawing No.:	2 of 8



Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

REVISIONS:

NOT VALID WITHOUT ENGINEER'S SEAL:



PROJECT:


DRAWING:


Designed By:	CGE	Date:	02/15/2018
Drawn By:	CLW	Scale:	1"=20'-0"
Checked By:	DJS	Project Number:	2018004

CAD File:  
2018004 \_  
CONSTRUCTIONDWGSET  
\_20180215 -  
ISSUEDTOCLIENT.DWG

3 of 8



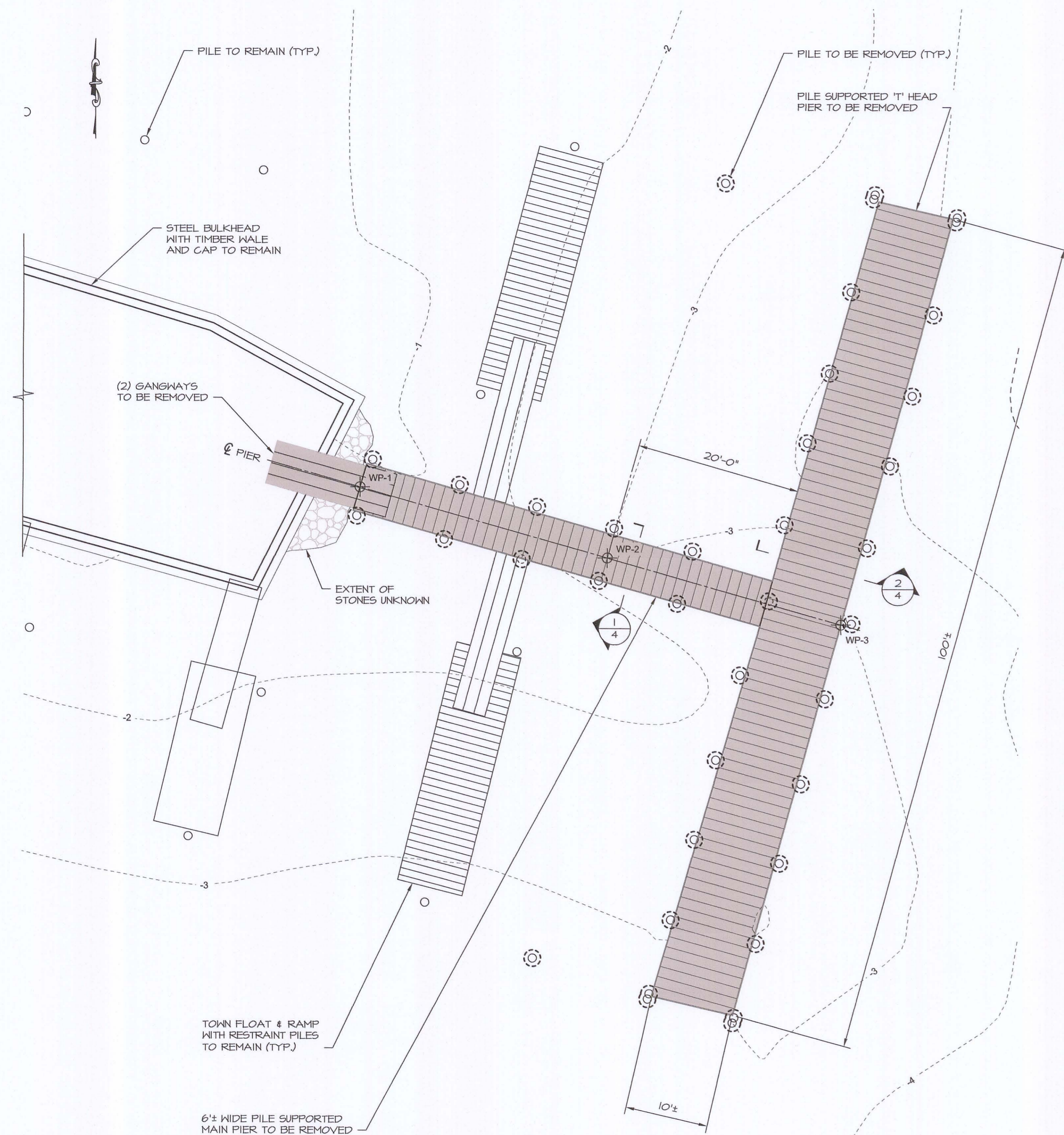
 B-1 INDICATES BORING LOCATION AND DESIGNATION

 TP-1 INDICATES TEST PIT LOCATION AND DESIGNATION

1. LANDSIDE BORINGS AND TEST PITS BY GNCB CONSULTING ENGINEERS, REPORT 'RESULTS OF SUBSURFACE INVESTIGATION PROGRAM, REPAIRS TO OLD SAYBROOK TOWN DOCK, OLD SAYBROOK, CT' DATED JUNE 14, 2011.
2. LOCATIONS ARE TRANSCRIBED AND ARE APPROXIMATE.
3. NO OTHER SUBSURFACE INFORMATION KNOWN AVAILABLE.

## EXISTING SITE PLAN




SCALE: 1" = 20'-0"



### EXISTING PARTIAL DEMOLITION PLAN



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

**WORKING POINT LEGEND:**

- |   |   |
|---|---|
| <br>WP-1 | WORKING POINT 1 LOCATED AT THE CENTER LINE OF THE LANDWARD END OF EXISTING MAIN PIER                    |
| <br>WP-2 | WORKING POINT 2 LOCATED ON THE CENTER LINE OF EXISTING MAIN PIER, 20'-0" LANDWARD FROM END OF MAIN PIER |
| <br>WP-3 | WORKING POINT 3 LOCATED ON THE CENTER LINE OF EXISTING MAIN PIER, AT THE END OF THE EXISTING "T" HEAD   |

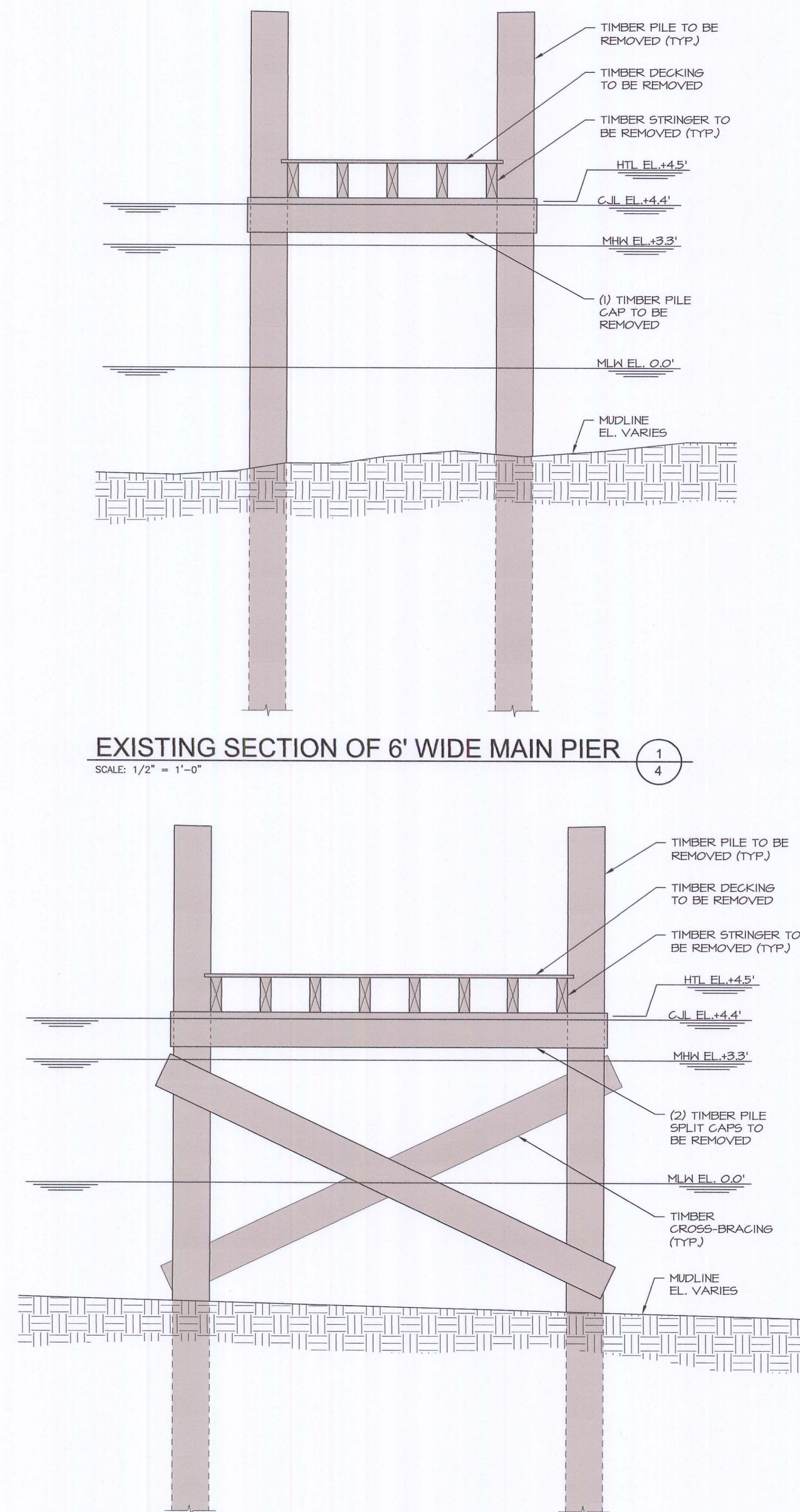
CONTRACTOR TO ESTABLISH WORKING POINTS IN FIELD PRIOR TO DEMOLITION. NEW  
PIER CONSTRUCTION CENTER LINE TO BE IN-LINE WITH EXISTING PIER CENTER LINE.

**DEMOLITION LEGEND:**

-  SHADING INDICATES  
STRUCTURES TO BE REMOVED
-  SYMBOL INDICATES EXISTING  
PILES TO BE EXTRACTED

**NOTE(S):**

1. PILES TO BE FULLY EXTRACTED. IF PILE CANNOT BE FULLY EXTRACTED, PILE TO BE CUT 3'-0" BELOW MUDLINE WITH ENGINEER'S PRIOR APPROVAL.
2. SECTION INDICATES GENERAL CONFIGURATION. CONTRACTOR TO FIELD CONFIRM QUANTITY, CONSTRUCTIONS TYPE, CONNECTIONS, AND ALL FEATURES OF EXISTING STRUCTURES PRIOR TO BID.




### EXISTING SECTION OF 10' WIDE 'T' PIERHEAD

SCALE: 1/2" = 1'-0"



KEITH B. NEILSON, P.E.  
PO BOX 421 MYSTIC, CT 06355  
860 572-8939 FAX 572-7569  
EMAIL: office@docko.com



**RACE**  
COASTAL ENGINEERING

611 Access Road Stratford, CT 06615  
Tel: 203-377-0663 [www.racecoastal.com](http://www.racecoastal.com)

## OWNERSHIP AND CONDITIONS OF USE:

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

## REVISIONS:

[illegible]

NOT VALID WITHOUT ENGINEER'S SEAL:



PREPARED FOR:

OLD SAYBROOK  
HARBOR COMMISSION  
302 MAIN STREET  
OLD SAYBROOK, CT 06475

PROJECT:

PIER RECONSTRUCTION  
INTERSECTION OF  
FERRY ROAD & CLARK STREET  
OLD SAYBROOK, CT 06475

**DRAWING:**

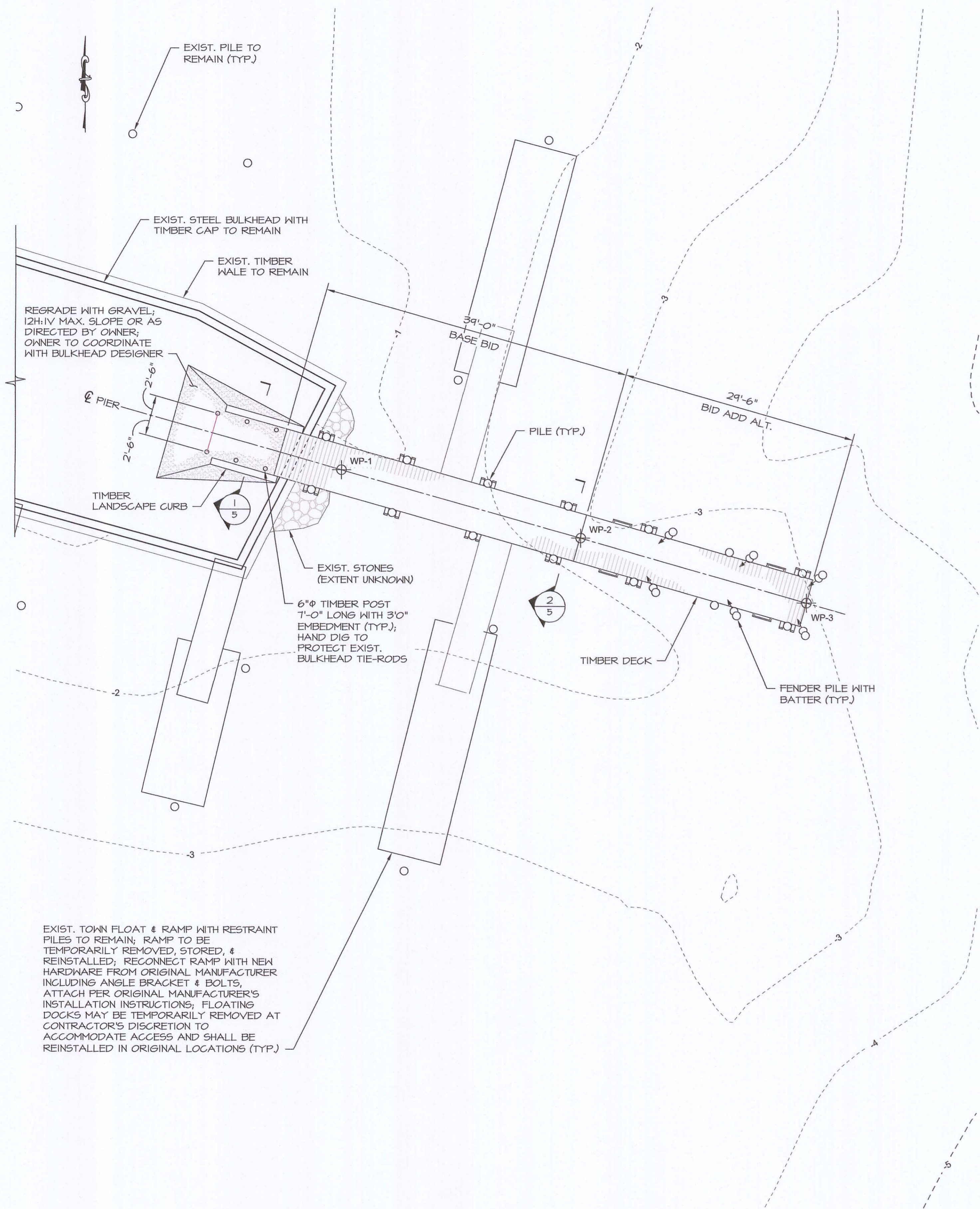
EXISTING PARTIAL DEMOLITION  
PLAN & SECTIONS

Designed By:	Date:
CGE	02/15/2018

Drawn By:	Scale:
CLW	As Noted

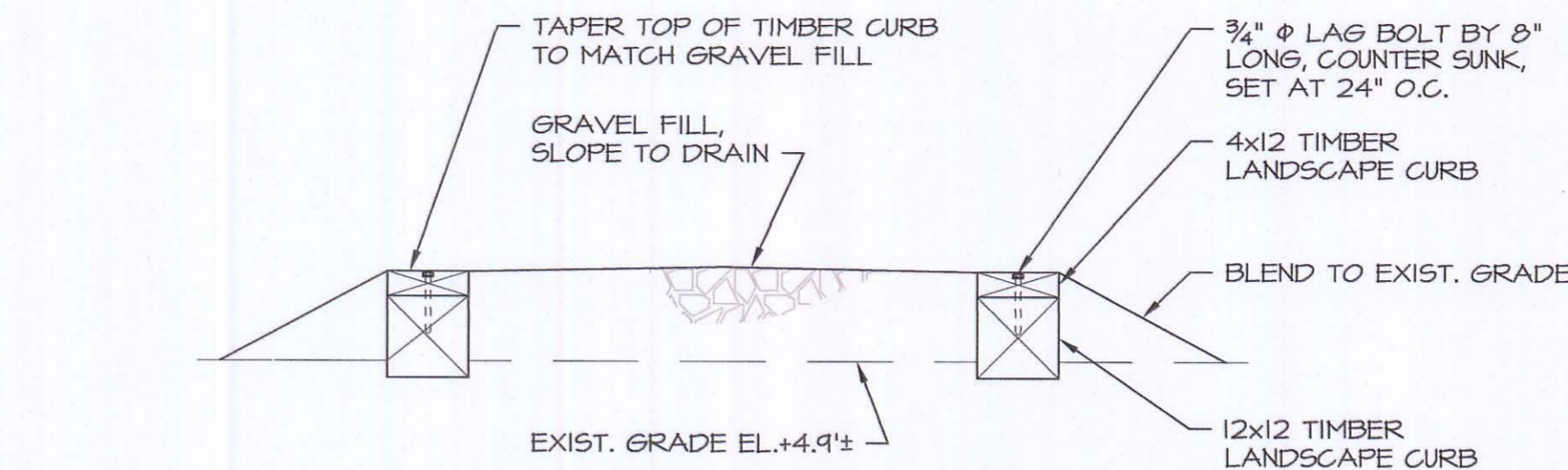
Checked By:	Project Number:
DJS	2018004

CAD File: 2018004 - CONSTRUCTIONDWGSET _20180215 - ISSUED TO CLIENT.DWG	Drawing No.:    4 of 8
---	------------------------------------



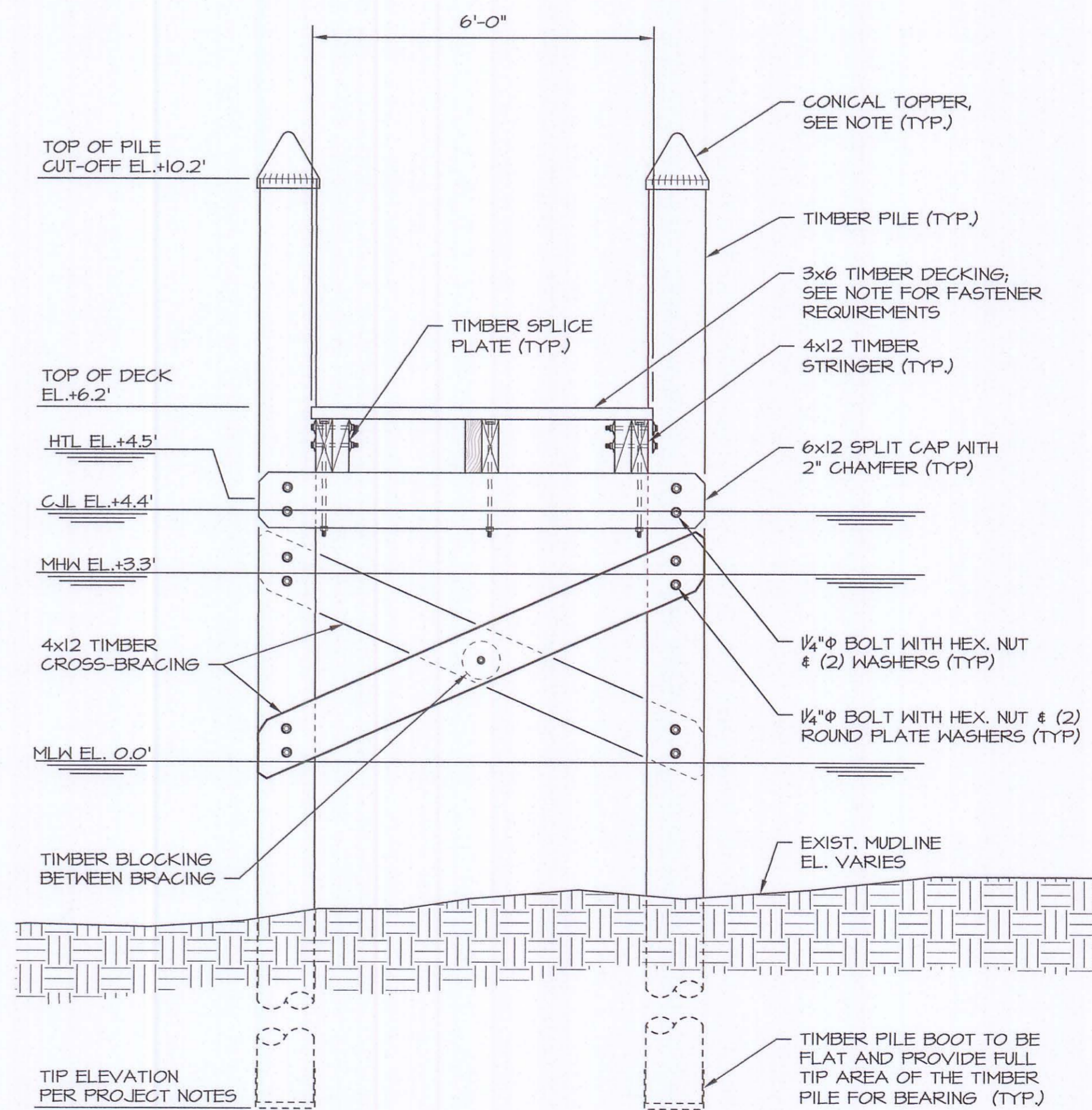
PIER RECONSTRUCTION PLAN

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



GRAVEL RAMP SECTION

SCALE: 1/2" = 1'-0"



NOTE:

- CONICAL TOPPER TYPE TO FIT PILE AND BE AS MANUFACTURED BY:
  - SAILING SPECIALTIES INC. SSTI CUSTOM PLASTICS (301-301-2372)
  - OR MERCO PCB ROUND (304-737-3006), PROVIDE WITH SHIM WASHERS INSIDE TO AVOID GAP BUCKLING.
  - SUBSTITUTIONS ARE ONLY ALLOWED WITH PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- CONICAL TOPPER TO BE SECURED PER MANUFACTURER'S INSTRUCTIONS.

TYPICAL PIER SECTION

SCALE: 1/2" = 1'-0"



KEITH B. NELSON, P.E.  
PO BOX 421 MYSTIC, CT 06355  
860 572-8939 FAX 572-7569  
E-MAIL: office@docko.com



611 Access Road Stratford, CT 06615  
Tel: 203-377-0663 www.racecoastal.com

OWNERSHIP AND CONDITIONS OF USE:

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

REVISIONS:

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:



PREPARED FOR:

OLD SAYBROOK  
HARBOR COMMISSION  
302 MAIN STREET  
OLD SAYBROOK, CT 06475

PROJECT:

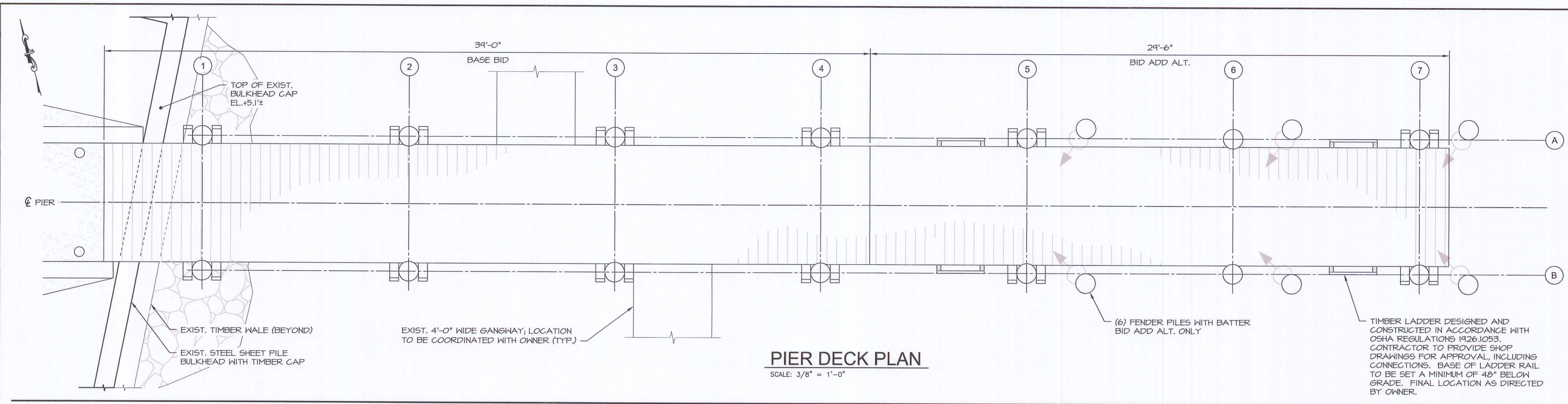
PIER RECONSTRUCTION  
INTERSECTION OF  
FERRY ROAD & CLARK STREET  
OLD SAYBROOK, CT 06475

DRAWING:

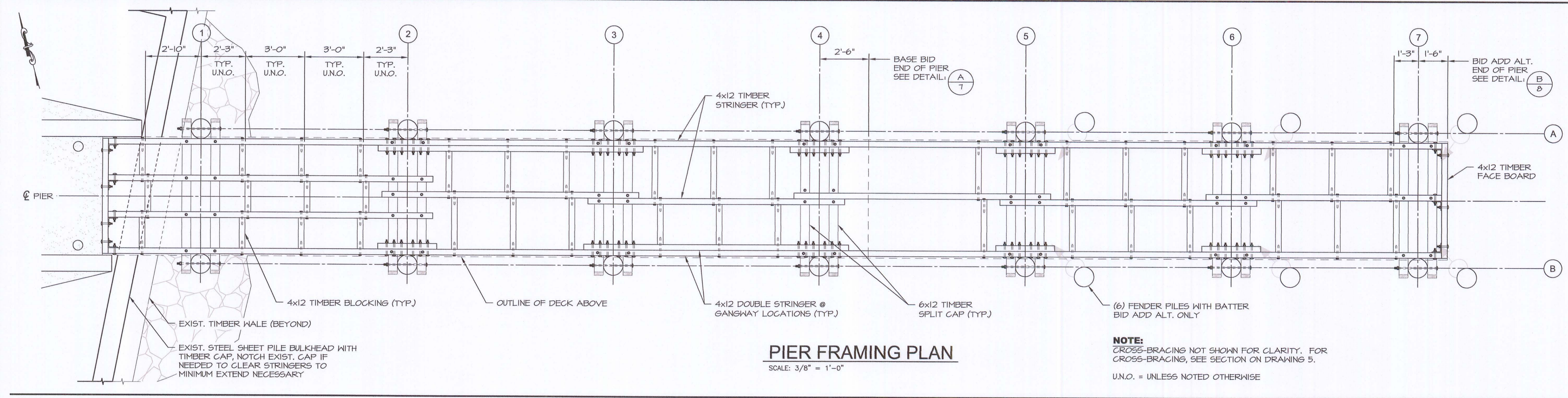
PIER RECONSTRUCTION  
PLAN & SECTIONS

Designed By:	CGE	Date:	02/15/2018
Drawn By:	CLW	Scale:	As Noted
Checked By:	DJS	Project Number:	2018004
CAD File:	2018004 CONSTRUCTION/MSSET _20180215 ISSUED TO CLIENT.DWG	Drawing No.:	5 of 8

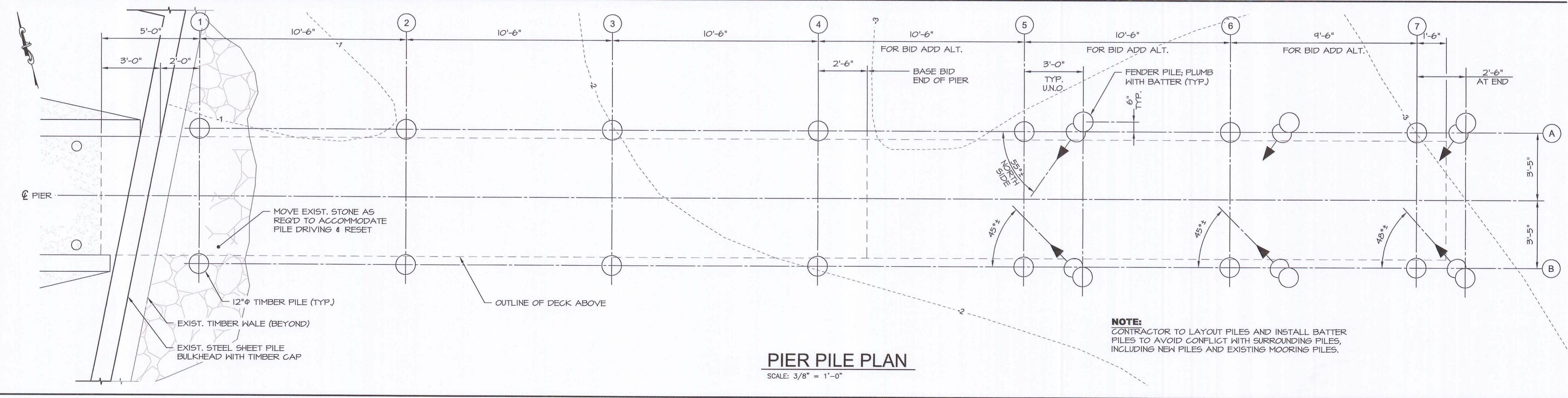
X:\Projects\2018\2018004 - Dock Old Saybrook Pier 6 Drawings\Construction Drawings\2018004 - ConstructionDrawSet - 20180215 - IssuedToClient.dwg 06 - DeckFraming Thu, 15 Feb 2018 - 9:21am



**PIER DECK PLAN**  
SCALE: 3/8" = 1'-0"



**PIER FRAMING PLAN**  
SCALE: 3/8" = 1'-0"



**PIER PILE PLAN**  
SCALE: 3/8" = 1'-0"



KEITH B. NELSON, P.E.  
PO BOX 421 MYSTIC, CT 06355  
860 572-8939 FAX 572-7569  
EMAIL: office@docko.com



611 Access Road Stratford, CT 06615  
Tel: 203-377-0663 www.racecoastal.com

**OWNERSHIP AND CONDITIONS OF USE:**  
Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.  
**THIS DRAWING IS COPYRIGHTED**

REVISIONS:

NO.	DESCRIPTION	BY	DATE



PREPARED FOR:  
**OLD SAYBROOK HARBOR COMMISSION**  
302 MAIN STREET  
OLD SAYBROOK, CT 06475

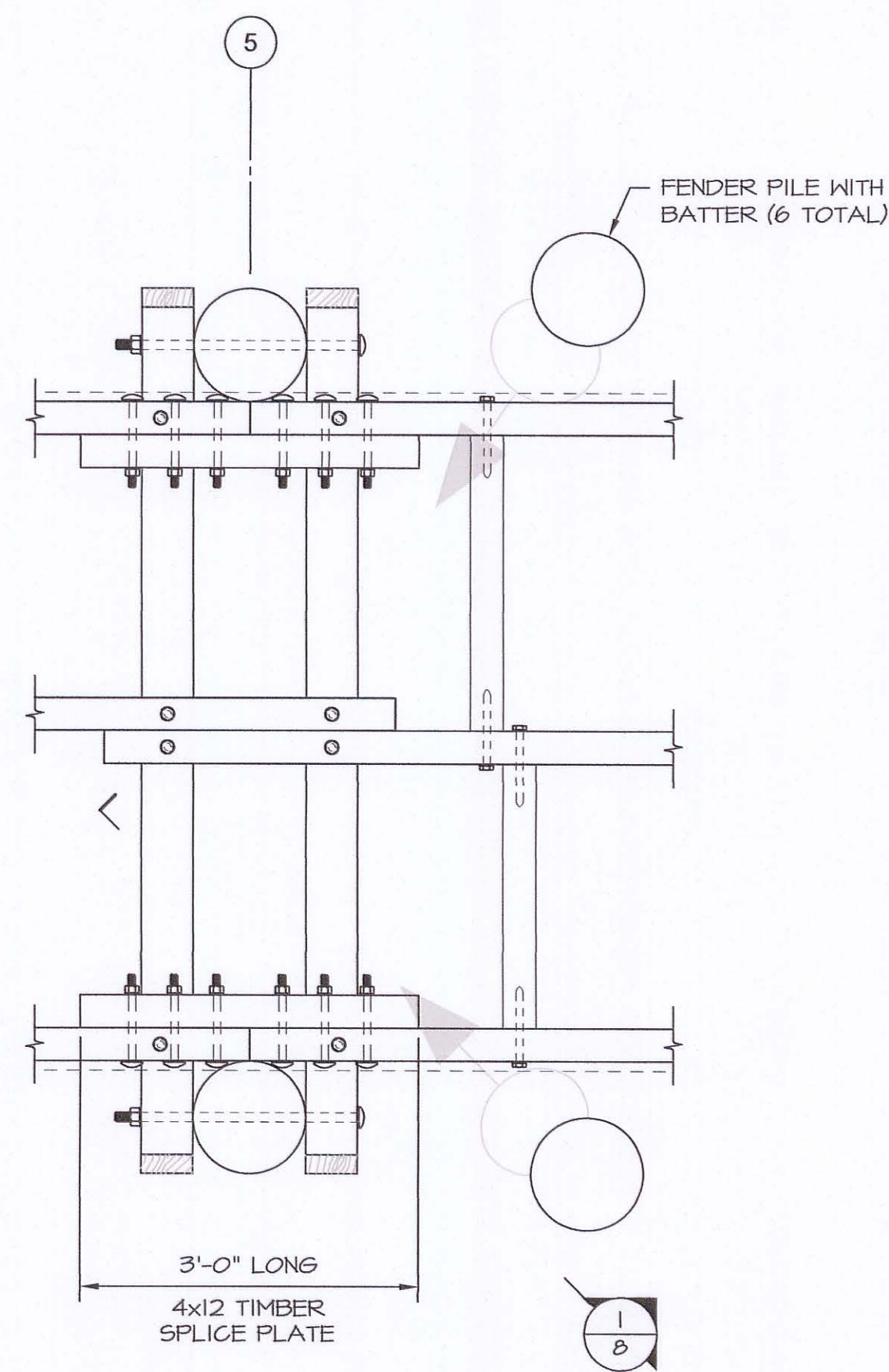
PROJECT:  
**PIER RECONSTRUCTION  
INTERSECTION OF  
FERRY ROAD & CLARK STREET  
OLD SAYBROOK, CT 06475**

DRAWING:  
**PIER DECK, FRAMING  
& PILE PLANS**

Designed By:	CGE	Date:	02/15/2018
Drawn By:	CLW	Scale:	3/8"=1'-0"
Checked By:	DJS	Project Number:	2018004
CAD File:	2018004 CONSTRUCTIONWSET -20180215 ISSUEDTOCLIENT.DWG	Drawing No.:	6 of 8

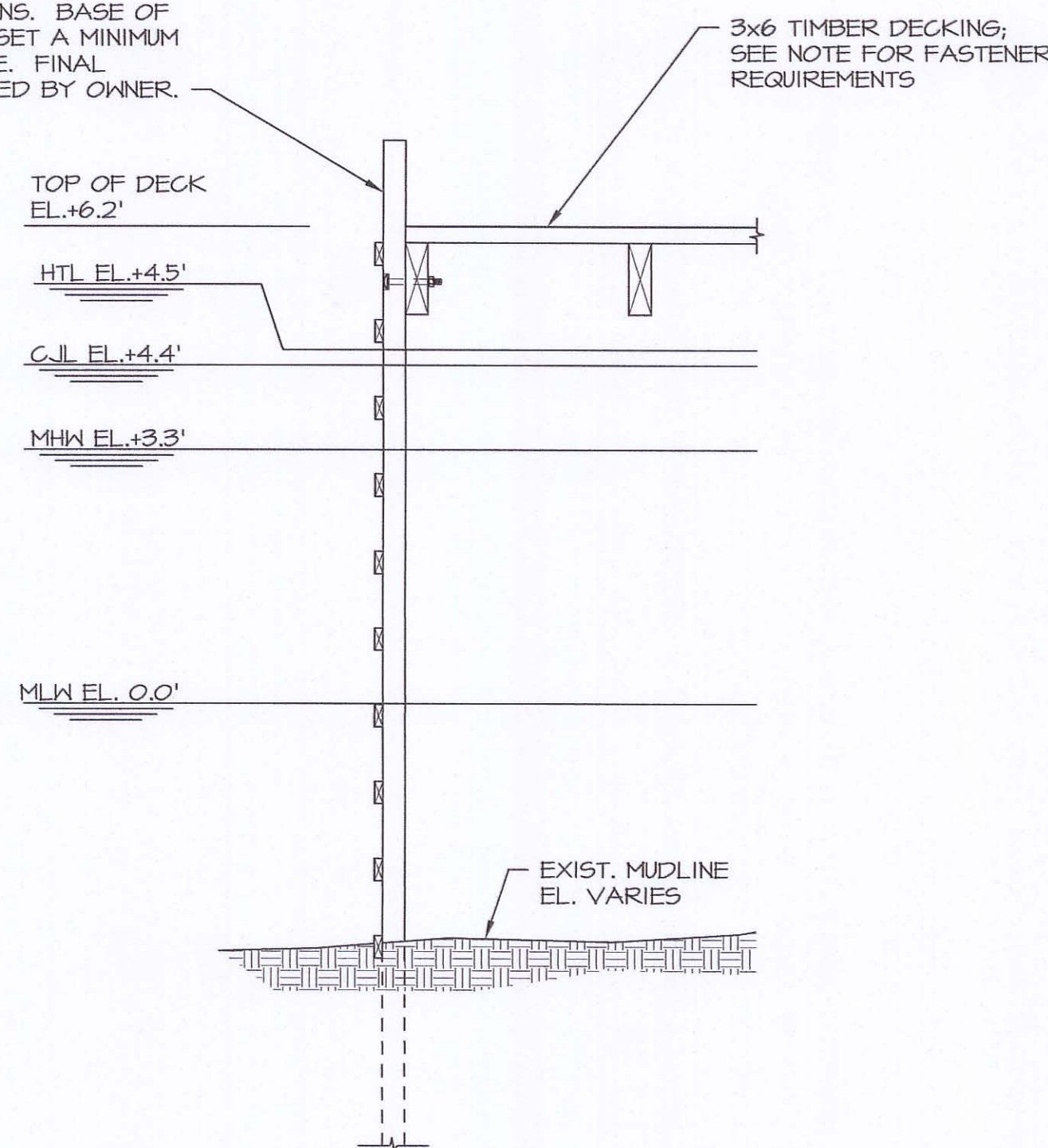


x:\Projects\2018\2018004 - Decko Old Saybrook Pier\6 Drawings\Construction Drawings\2018004 - ConstructionDrawSet - 20180215 - IssuedToClient.dwg 08 - Bid Add Alt Carrie Walter Thu, 15 Feb 2018 - 9:22am

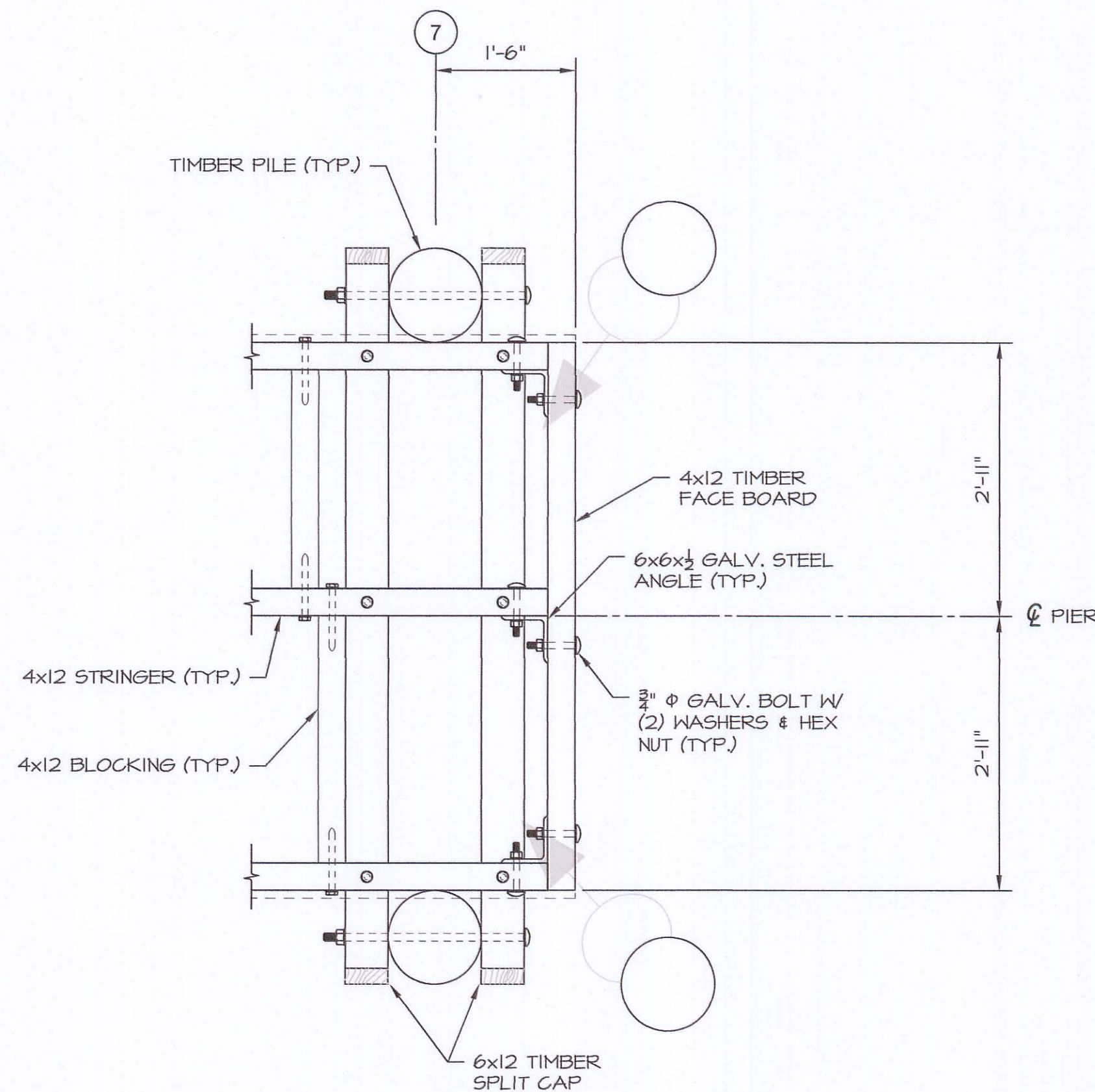


**BID ADD ALT.  
STRINGER CONNECTION DETAIL**  
SCALE: 3/4" = 1'-0"

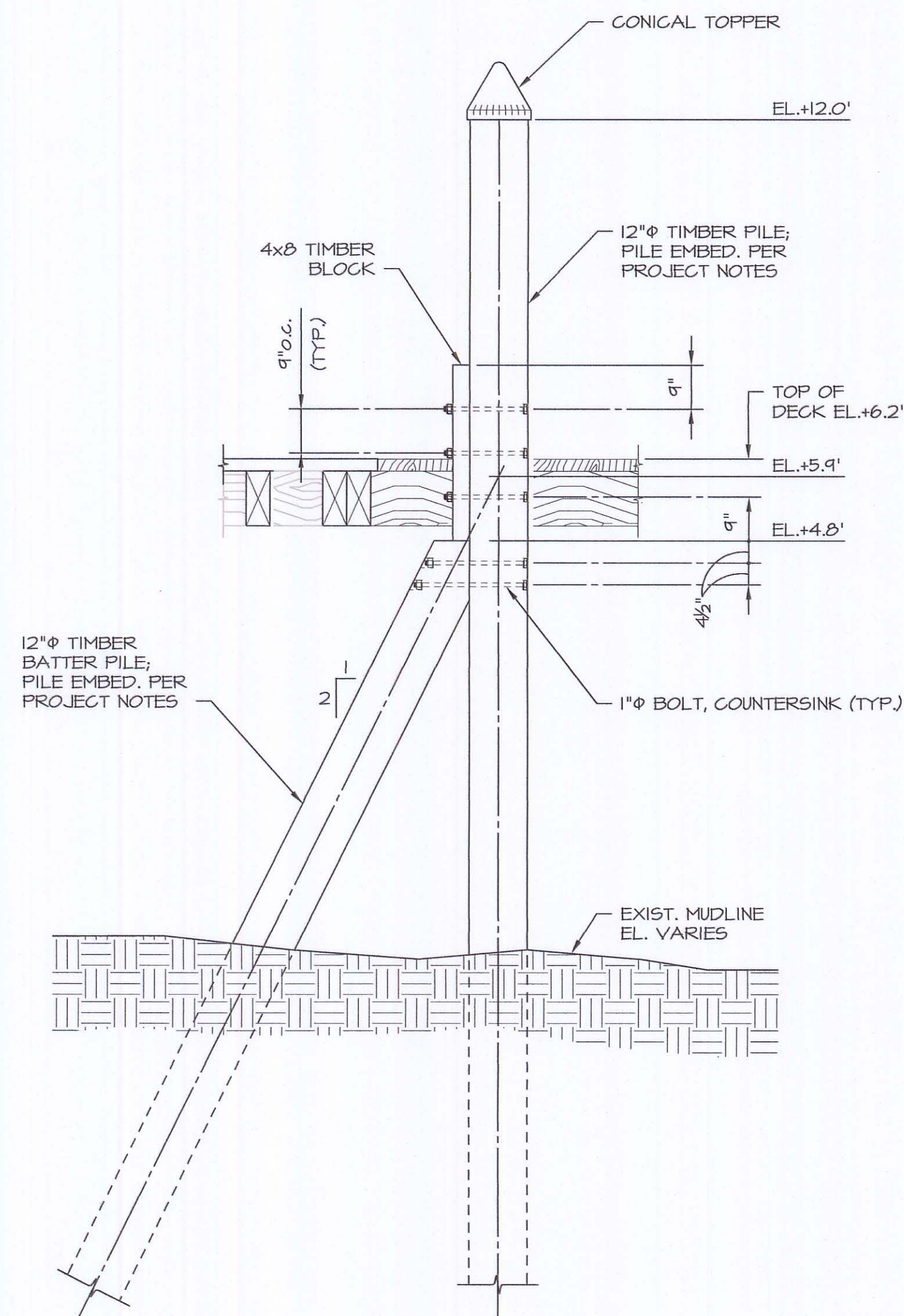
TIMBER LADDER DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH OSHA REGULATIONS 1926.1053. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR APPROVAL, INCLUDING CONNECTIONS. BASE OF LADDER RAIL TO BE SET A MINIMUM OF 48" BELOW GRADE. FINAL LOCATION AS DIRECTED BY OWNER.



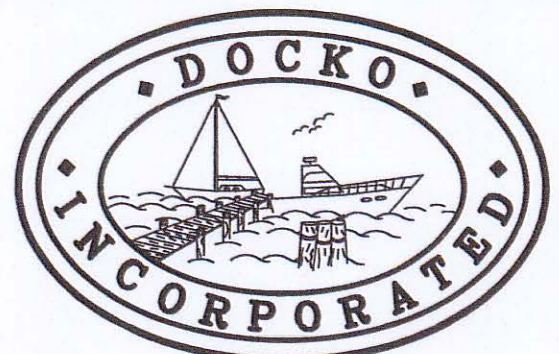
**LADDER DETAIL**  
SCALE: 1/2" = 1'-0"



**BID ADD ALT.  
END OF PIER DETAIL**  
SCALE: 3/4" = 1'-0" B  
6



**BID ADD ALT.  
FENDER PILE DETAIL**  
SCALE: 1/2" = 1'-0" 1  
8



KEITH B. NELSON, P.E.  
PO BOX 421 MYSTIC, CT 06355  
860 572-8939 FAX 572-7569  
EMAIL: office@docko.com

**RACE**  
COASTAL ENGINEERING

611 Access Road Stratford, CT 06615  
Tel: 203-377-0663 www.racecoastal.com

**OWNERSHIP AND CONDITIONS OF USE:**

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

**REVISIONS:**

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:



PREPARED FOR:

OLD SAYBROOK  
HARBOR COMMISSION  
302 MAIN STREET  
OLD SAYBROOK, CT 06475

PROJECT:

PIER RECONSTRUCTION  
INTERSECTION OF  
FERRY ROAD & CLARK STREET  
OLD SAYBROOK, CT 06475

DRAWING:

BID ADD ALT. DETAILS

Designed By:	CGE	Date:	02/15/2018
Drawn By:	CLW	Scale:	1"=1'-0"
Checked By:	DJS	Project Number:	2018004
CAD File:	2018004 - CONSTRUCTIONDRAWSET - 20180215 - ISSUEDTOCLIENT.DWG	Drawing No.:	8 of 8



Date May 1, 2017

Raymond V. Collins  
Waterfront Commission Chairman  
Town of Old Saybrook  
302 Main Street  
Old Saybrook, CT 06475

Subject: Certificate of Permission #201702501  
Intersection of Ferry Road and Clark Street, Old Saybrook

Dear Mr. Collins:

Enclosed please find a copy of the certificate of permission ("certificate") which is being issued pursuant to your application of March 15, 2017. Your attention is directed to the conditions of the enclosed certificate. All work must conform to that which is specifically authorized by this certificate. Any work in tidal wetlands or waterward of the coastal jurisdiction line in tidal, navigable and coastal waters of the State which has not been authorized by a valid permit or certificate is a violation of state law and subject to enforcement action by the Department of Energy and Environmental Protection and the Office of the Attorney General.

Your initiation of authorized activities will be relied upon as your agreement to comply with the terms and conditions of the certificate. Please note that Appendix B of the certificate has been enclosed for your convenience to comply with Connecticut General Statutes Section 22a-363g. Also, the Permit Notice, found at the back of your authorization, must be posted at the work area while the work is being undertaken. Please refer to the SPECIAL TERMS AND CONDITIONS of your certificate for further details.

If you have not already done so, you should contact your local Planning and Zoning Office to determine local permit requirements for your project. Also, your activity may be eligible for General Permit authorization from the U.S. Army Corps of Engineers ("Corps"). Most maintenance and reconstruction activities require no further authorization from the Corps. Other activities, generally involving work in tidal wetlands or other special aquatic sites, and in or near a federal Navigation Project or involving filling, must receive written authorization from the Corps prior to beginning work. The State of Connecticut will automatically forward this certificate to the Corps for its determination of General Permit eligibility. You do not need to apply directly to the Corps unless they notify you. For more information regarding this federal process, you

may write to the Corps New England Division, Regulatory Branch, 696 Virginia Road,  
Concord, Massachusetts, 02254 or call 978-318-8335 or 800-343-4789.

Sincerely,

A handwritten signature in cursive script that reads "Carol Szymanski".

Carol Szymanski, Environmental Analyst  
Land & Water Resources Division  
Bureau of Water Protection and Land Reuse

Enclosure – COP #201702501 (original cover letter, Appendix B and Permit Notice;  
COP copy)

cc: File #201702501 (original COP; copy cover letter, Appendix B, Permit Notice)  
via e-mail: Keith Neilson—permits@docko.com  
Carl Fortuna, Old Saybrook First Selectman—  
carl.fortuna@oldsaybrookct.gov  
Army Corps, c/o Diane Ray—diane.m.ray@usace.army.mil  
Scott Mitchell, Old Saybrook Harbor Master—ncdockmaster@hotmail.com

### **CERTIFICATE OF PERMISSION**

**Certificate No:** COP-201702501

**Municipality:** Old Saybrook

**Site of Activity:** intersection of Ferry Road and Clark Street

**Certificate Holder:** Raymond V. Collins, Waterfront Commission Chairman  
302 Main Street  
Old Saybrook, CT 06475

Pursuant to section 22a-363b of the Connecticut General Statutes ("CGS") and in accordance with section 401 of the Federal Clean Water Act, as amended, CGS sections 22a-28 through 22a-35, 22a-359 to 22a-363g, 22a-98, and the Regulations of Connecticut State Agencies sections 22a-426-1 to 22a-426-9 (the Water Quality Standards) effective September 10, 2013, a certificate of permission ("certificate") is hereby granted to partially reconstruct and modify within the same footprint an existing Town dock as is more specifically described below in the SCOPE OF AUTHORIZATION. The work performed shall conform to the terms and conditions of this certificate.

#### **\*\*\*\*\*NOTICE TO CERTIFICATE HOLDERS AND CONTRACTORS\*\*\*\*\***

**UPON INITIATION OF ANY WORK AUTHORIZED HEREIN, THE CERTIFICATE HOLDER ACCEPTS AND AGREES TO COMPLY WITH ALL TERMS AND CONDITIONS OF THIS CERTIFICATE. FAILURE TO CONFORM TO THE TERMS AND CONDITIONS OF THIS CERTIFICATE MAY SUBJECT THE CERTIFICATE HOLDER AND ANY CONTRACTOR TO ENFORCEMENT ACTIONS, INCLUDING INJUNCTIONS AS PROVIDED BY LAW AND PENALTIES UP TO \$1,000.00 PER DAY PURSUANT TO THE ADMINISTRATIVE CIVIL PENALTY POLICY DESCRIBED IN SECTIONS 22a-6b-1 THROUGH 22a-6b-15 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES.**

### **SCOPE OF AUTHORIZATION**

The Certificate Holder is hereby authorized to conduct the following work as described in application number COP-201702501, including seven sheets of plans dated January 20, 2017, submitted by the Certificate Holder to the Commissioner of Energy and Environmental Protection ("Commissioner") and attached hereto:

1. Remove 10' wide by 100' long pile supported pier "T" head and the waterward most 20' of the 10' wide pile supported main pier;

2. Extend the main pier 6' shoreward to the existing wharf steel bulkhead;
3. Install a new 10' wide by 100' long float with associated 4' wide by 22' long hinged ramp, two restraint dolphins, utilities and 6 new batter braced tie-off/fender piles;
4. Repair parking area by placing 20 cy of gravel, crushed stone and/or recycled pavement millings over 500 square feet and install a timber pile wheel stop traffic barriers;
5. Repair the existing stone seawall by adding 10 cy of stone over 160 sf; and
6. Construct a new 1' thick reinforced concrete cap to the seawall to a new top elevation of 6' MLW.

### SPECIAL TERMS AND CONDITIONS

1. Not later than two (2) weeks prior to the commencement of any work authorized herein, the Certificate Holder shall submit to the Commissioner, on the form attached hereto as Appendix A, the name(s) and address(es) of all contractor(s) employed to conduct such work and the expected date for commencement and completion of such work, if any.
2. The Certificate Holder shall file Appendix B on the land records of the municipality in which the subject property is located not later than thirty (30) days after certificate issuance pursuant to CGS Section 22a-363g. A copy of Appendix B with a stamp or other such proof of filing with the municipality shall be submitted to the Commissioner no later than sixty (60) days after certificate issuance.
3. The Certificate Holder shall give a copy of this certificate to the contractor(s) who will be carrying out the activities authorized herein prior to the start of construction and shall receive a written receipt for such copy, signed and dated by such contractor(s). The Certificate Holder's contractor(s) shall conduct all operations at the site in full compliance with this certificate and, to the extent provided by law, may be held liable for any violation of the terms and conditions of this certificate. At the work area the contractor(s) shall, whenever work is being performed, make available for inspection a copy of this certificate and the final plans for the work authorized herein.
4. The Certificate Holder shall post the attached Permit Notice in a conspicuous place at the work area while the work authorized herein is undertaken.
5. Except as specifically authorized by this certificate, no equipment or material including, but not limited to, fill, construction materials, excavated material or debris, shall be deposited, placed or stored in any wetland or watercourse on or off-site, nor shall any wetland or watercourse be used as a staging area or accessway other than as provided herein.
6. On or before ninety (90) days after completion of the work authorized herein, the Certificate Holder shall submit to the Commissioner "as-built" plans of the work area showing contours, bathymetries, tidal datums and structures, including any proposed elevation views and cross sections included in the certificate. Such plans or survey shall be the originals and be signed and sealed by an engineer, surveyor or architect, as applicable, who is licensed in the State of Connecticut.

**GENERAL TERMS AND CONDITIONS**

1. All work authorized by this certificate shall be completed within three (3) years from date of issuance of this certificate ("work completion date") in accordance with all conditions of this permit and any other applicable law.
  - a. The Certificate Holder may request a one-year extension of the work completion date. Such request shall be in writing and shall be submitted to the Commissioner at least thirty (30) days prior to said work completion date. Such request shall describe the work done to date, what work still needs to be completed, and the reason for such extension. It shall be the Commissioner's sole discretion to grant or deny such request.
  - b. Any work authorized herein conducted after said work completion date or any authorized one-year extension thereof is a violation of this certificate and may subject the Certificate Holder to enforcement action, including penalties, as provided by law.
2. In conducting the work authorized herein, the Certificate Holder shall not deviate from the attached plans, as may be modified by this certificate. The Certificate Holder shall not make de minimis changes from said plans without prior written approval of the Commissioner.
3. The Certificate Holder may not conduct work waterward of the coastal jurisdiction line or in tidal wetlands at this certificate site other than the work authorized herein, unless otherwise authorized by the Commissioner pursuant to CGS section 22a-359 et. seq. and/or CGS section 22a-28 et. seq.
4. The Certificate Holder shall maintain all structures or other work authorized herein in good condition. Any such maintenance shall be conducted in accordance with applicable law including, but not limited to, CGS sections 22a-28 through 22a-35 and CGS sections 22a-359 through 22a-363g.
5. In undertaking the work authorized hereunder, the Certificate Holder shall not cause or allow pollution of wetlands or watercourses, including pollution resulting from sedimentation and erosion. For purposes of this certificate, "pollution" means "pollution" as that term is defined by CGS section 22a-423.
6. Upon completion of any work authorized herein, the Certificate Holder shall restore all areas impacted by construction, or used as a staging area or accessway in connection with such work, to their condition prior to the commencement of such work.
7.
  - a. The work specified in the SCOPE OF AUTHORIZATION is authorized solely for the purpose set forth in this certificate. No change in purpose or use of the authorized work or facilities as set forth in this certificate may occur without the prior written authorization of the Commissioner. The Certificate Holder shall, prior to undertaking or allowing any change in use or purpose from that which is authorized by this certificate, request authorization from the Commissioner for such change. Said request shall be in writing and shall describe the proposed change and the reason for the change.
8. The Certificate Holder shall allow any representative of the Commissioner to inspect the work authorized hereunder at reasonable times to ensure that it is being or has been

accomplished in accordance with the terms and conditions of this certificate.

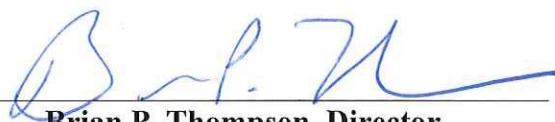
9. This certificate is not transferable without prior written authorization of the Commissioner. A request to transfer a certificate shall be submitted in writing and shall describe the proposed transfer and the reason for such transfer. The Certificate Holder's obligations under this certificate shall not be affected by the passage of title to the certificate site to any other person or municipality until such time as a transfer is authorized by the Commissioner.
10. Any document required to be submitted to the Commissioner under this certificate or any contact required to be made with the Commissioner shall, unless otherwise specified in writing by the Commissioner, be directed to:  
  
Regulatory Section  
Land & Water Resources Division  
Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, Connecticut 06106-5127  
(860) 424-3019  
Fax # (860) 424-4054
11. The date of submission to the Commissioner of any document required by this certificate shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this certificate, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three (3) days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this certificate, the word "day" as used in this certificate means calendar day. Any document or action which is required by this certificate to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or a Connecticut or federal holiday.
12. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this certificate shall be signed by Certificate Holder and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense."
13. In evaluating the application for this certificate the Commissioner has relied on information and data provided by the Certificate Holder and on the Certificate Holder's representations concerning site conditions, design specifications and the proposed work authorized herein, including but not limited to representations concerning the commercial, public or private nature of the work or structures authorized herein, the water-dependency of said work or structures, its availability for access by the general public, and the ownership of regulated structures or filled areas. If such information proves to be false, deceptive, incomplete or

inaccurate, this certificate may be modified, suspended or revoked, and any unauthorized activities may be subject to enforcement action.

14. In granting this certificate, the Commissioner has relied on all representations of the Certificate Holder, including information and data provided in support of the Certificate Holder's application. Neither the Certificate Holder's representations nor the issuance of this certificate shall constitute an assurance by the Commissioner as to the structural integrity, the engineering feasibility or the efficacy of such design.
15. In the event that the Certificate Holder becomes aware that he did not or may not comply, or did not or may not comply on time, with any provision of this certificate or of any document required hereunder, the Certificate Holder shall immediately notify the Commissioner and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the Commissioner, the Certificate Holder shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Certificate Holder shall comply with any dates which may be approved in writing by the Commissioner. Notification by the Certificate Holder shall not excuse noncompliance or delay and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically stated by the Commissioner in writing.
16. This certificate may be revoked, suspended, or modified in accordance with applicable law.
17. The issuance of this certificate does not relieve the Certificate Holder of his obligations to obtain any other approvals required by applicable federal, state and local law.
18. This certificate is subject to and does not derogate any present or future property rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the property or activity affected hereby.

Issued on April 28, 2017.

STATE OF CONNECTICUT  
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

  
**Brian P. Thompson, Director**  
**Land & Water Resources Division**  
**Bureau of Water Protection and Land Reuse**

**Certificate of Permission No. COP-201702501**  
Raymond V. Collins

**LAND & WATER RESOURCES DIVISION**

**APPENDIX A**

**TO: Regulatory Section**  
**Department of Energy and Environmental Protection**  
**Land & Water Resources Division**  
**79 Elm Street**  
**Hartford, CT 06106-5127**

**Certificate Holder:** Raymond V. Collins  
302 Main Street  
Old Saybrook, CT 06475

**Certificate No:** COP-201702501, Old Saybrook

**CONTRACTOR 1:** \_\_\_\_\_

Address: \_\_\_\_\_

Telephone #: \_\_\_\_\_

**CONTRACTOR 2:** \_\_\_\_\_

Address: \_\_\_\_\_

Telephone #: \_\_\_\_\_

**CONTRACTOR 3:** \_\_\_\_\_

Address: \_\_\_\_\_

Telephone #: \_\_\_\_\_

**EXPECTED DATE OF COMMENCEMENT OF WORK:** \_\_\_\_\_

**EXPECTED DATE OF COMPLETION OF WORK:** \_\_\_\_\_

**PERMITTEE:** \_\_\_\_\_  
(signature) (date)



**LAND & WATER RESOURCES DIVISION**

**APPENDIX B**

**NOTICE OF CERTIFICATE ISSUANCE**  
**DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION**

**To:** Old Saybrook Town Clerk

**Signature and  
Date:**

*Bi Golubinski 5/1/2017*

**Subject:** intersection of Ferry Road and Clark Street, Old Saybrook  
Certificate of Permission #COP-201702501

Pursuant to Section 22a-363g and Section 22a-363b of the Connecticut General Statutes, the Commissioner of Energy and Environmental Protection gives notice that a certificate has been issued to Raymond Collins, 302 Main Street, Old Saybrook, CT 06475 to:

1. Remove the 10' wide by 100' long pile supported "T" head float dock and the waterward most 20' of 10' wide pile supported main pier;
2. Extend the main pier 6' shoreward to existing wharf steel bulkhead;
3. Install a new 10' wide by 100' long float with associated 4' wide by 22' long hinged ramp, restraint dolphins, utilities and 6 new batter braced tie-off/fenders;
4. Repair the parking area by placing 20 cubic yards of gravel, crushed stone and/or recycled pavement millings over 500 square feet area; and install timber pile wheel stop traffic barriers;
5. Repair the existing stone seawall by adding 10 cy of stone over 160 sf;
6. Construct new 1' thick reinforced concrete cap to the seawall to a new top elevation of 6' MLW.

If you have any questions pertaining to this matter, please contact the Land & Water Resources Division at 860-424-3019.

Return to:  
Land & Water Resources Division  
State of Connecticut  
Department of Energy & Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127



# PERMIT NOTICE

This Certifies that Authorization to perform work below the Coastal Jurisdiction Line and/or within Tidal Wetlands of coastal, tidal, or navigable waters of Connecticut

Has been issued to: **Raymond Collins**

At this location: **Ferry Road/Clark Street, Old Saybrook**

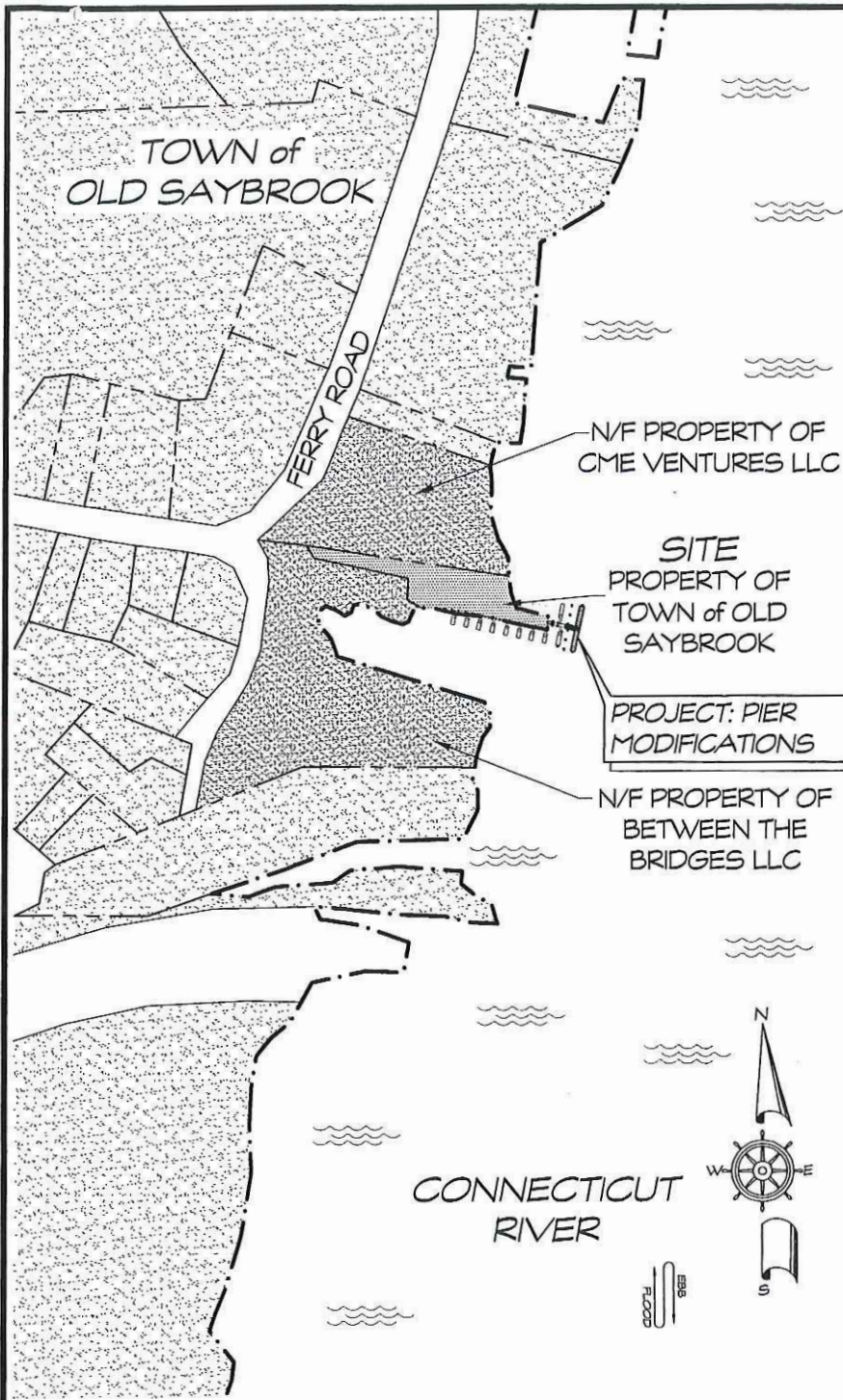
To conduct the following:

1. Remove the 10' wide by 100' long pile supported "T" head float dock and the waterward most 20' of 10' wide pile supported main pier;
2. Extend the main pier 6' shoreward to existing wharf steel bulkhead;
3. Install a new 10' wide by 100' long float with associated 4' wide by 22' long hinged ramp, restraint dolphins, utilities and 6 new batter braced tie-off/fenders;
4. Repair the parking area by placing 20 cubic yards of gravel, crushed stone and/or recycled pavement millings over 500 square feet area; and install timber pile wheel stop traffic barriers;
5. Repair the existing stone seawall by adding 10 cy of stone over 160 sf;
6. Construct new 1' thick reinforced concrete cap to the seawall to a new top elevation of 6' MLW.

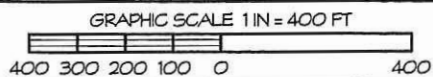
Permit #: **COP-201702501**

This Notice must be posted in a conspicuous place on the job during the entire project.

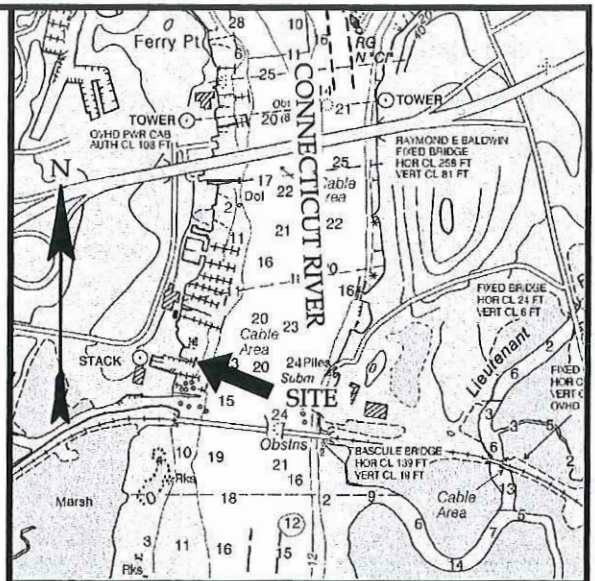
Department of Energy and Environmental Protection  
Land & Water Resources Division  
79 Elm Street • Hartford, CT 06106-5127  
Phone: (860) 424-3019 Fax: (860) 424-4054  
[www.ct.gov/deep](http://www.ct.gov/deep)



### OVERALL PLAN



REVISED 3-9-17 DEEP  
PROJECT DESCRIPTION



### LOCATION MAP

REFERENCE  
CHART: 12375  
GRAPHIC SCALE  
IN FEET

### NOTES:

1. ELEVATION DATUM IS MEAN LOW WATER (MLW).
2. TIDE DATA IS TAKEN FROM 2017 NOAA TIDE TABLES  
REFERENCE: LYME HIGHWAY BRIDGE. CJL IS TAKEN FROM THE COASTAL JURISDICTIONAL LINE FACT SHEET: CONNECTICUT RIVER - OLD SAYBROOK
3. PROJECT DESCRIPTION: REMOVE A 10-FT WIDE X 100±LF PILE SUPPORTED T-HEAD AND 20±LF OF 10-FT WIDE PILE SUPPORTED MAIN PIER, EXTEND THE MAIN PIER 6±FT SHOREWARD TO THE EXISTING WHARF STEEL BULKHEAD, INSTALL A NEW 10-FT WIDE X 100±LF FLOAT WITH ASSOCIATED HINGED RAMP, RESTRAINT DOLPHINS AND PILES, UTILITIES AND SIX NEW BATTER BRACED TIE-OFF/FENDER PILES, ALSO CONSTRUCT AND PLACE 20±CY OF GRAVEL, CRUSHED STONE AND/OR RECYCLED PAVEMENT MILLINGS OVER 500±SF AND TIMBER PILE WHEEL STOP TRAFFIC BARRIERS, REPAIR EXISTING STONE SEAWALL 10±CY OVER 160±SF TO NEW TOP ELEV 5±FT MLW, ALSO CONSTRUCT NEW 1-FT THICK REINFORCED CONCRETE CAP 10±CY OVER 160±SF ALL AT OR WATERWARD OF THE MEAN HIGH WATER, HIGH TIDE, AND CT COASTAL JURISDICTION LINES.
4. PROJECT PURPOSE: THIS IS A MUNICIPAL DOCK IN SUPPORT OF RECREATIONAL BOATING AND COMMERCIAL FISHING
5. THESE APPLICATION DRAWINGS REPRESENT A COMPILATION OF SURVEYS FOR ENVIRONMENTAL PERMIT PURPOSES. THEY ARE NOT CONSTRUCTION CONTRACT DOCUMENTS. A TOWN BUILDING PERMIT MAY BE REQUIRED.
6. ADJOINING PROPERTY OWNERS:  
NORTH: CME VENTURES LLC  
2-20 FERRY ROAD  
OLD SAYBROOK, CT  
SOUTH: BETWEEN THE BRIDGES LLC  
122-134 FERRY ROAD  
OLD SAYBROOK, CT

PROJECT: DOCK MODIFICATIONS

LOCATION: FERRY ROAD - TOWN of OLD SAYBROOK  
MIDDLESEX COUNTY, CONNECTICUT

WATERWAY: CONNECTICUT RIVER

DATE: JANUARY 20, 2017

APPLICANT: TOWN of OLD SAYBROOK

AGENT: SHEET 1 OF 4

**DOCKO, INC.**

Keith B. Neilson, PE

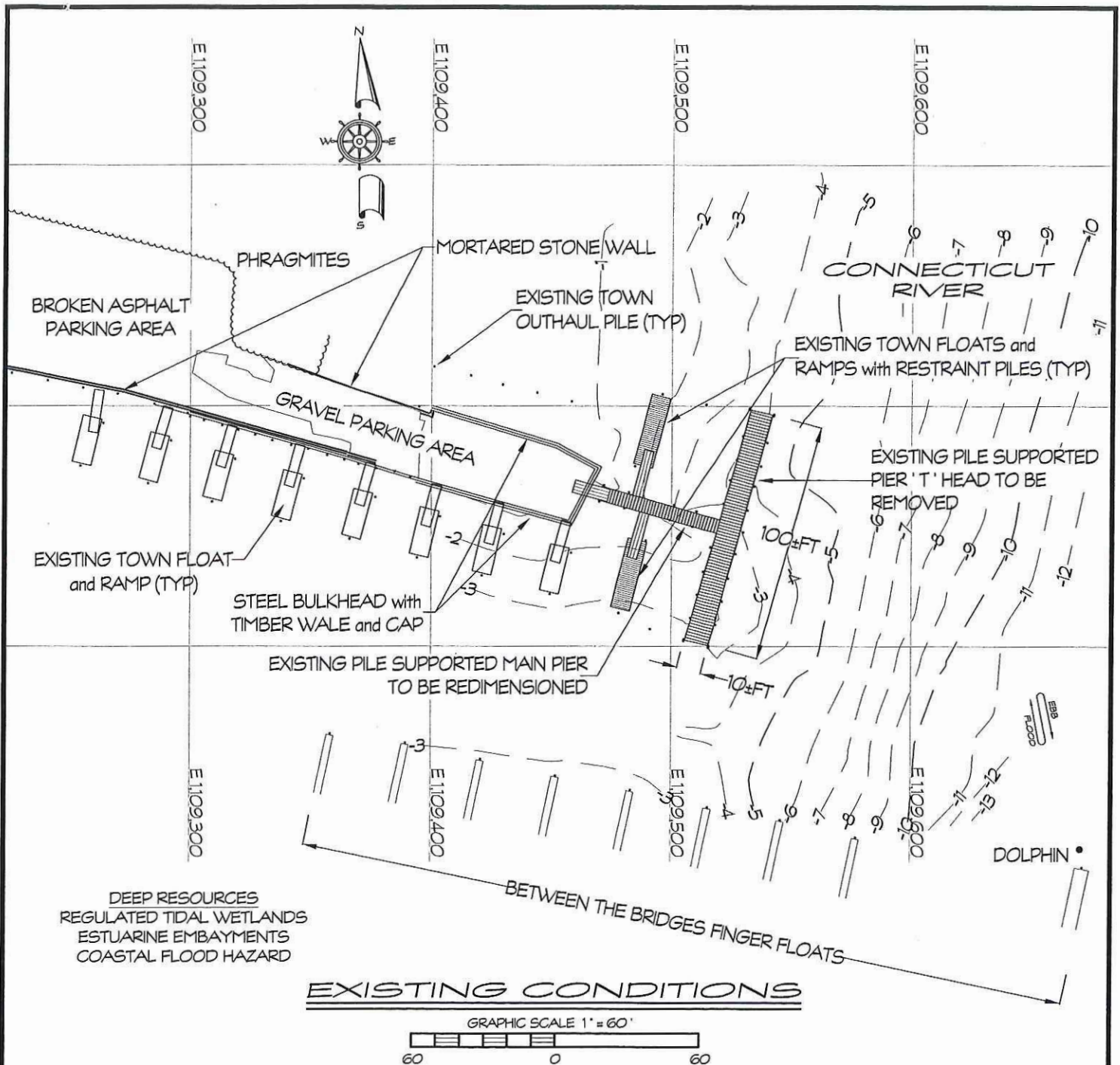
Mystic, CT 06355

860 572 8939 FAX 860 572 7569

EMAIL: office@docko.com



DWG 16-08-2774



NOTE:  
NO OSPREY POLES WERE OBSERVED  
WITHIN 500-FT OF THE SITE

SURVEY BY RESOURCE MANAGEMENT & MAPPING  
ELEVATIONS ARE BASED ON MEAN LOW WATER



PROJECT: DOCK MODIFICATIONS

LOCATION: FERRY ROAD - TOWN OF OLD SAYBROOK  
MIDDLESEX COUNTY, CONNECTICUT

WATERWAY: CONNECTICUT RIVER

DATE: JANUARY 20, 2017

APPLICANT: TOWN OF OLD SAYBROOK

AGENT: SHEET 2 OF 4

**DOCKO, INC.**

Keith B. Neilson, PE

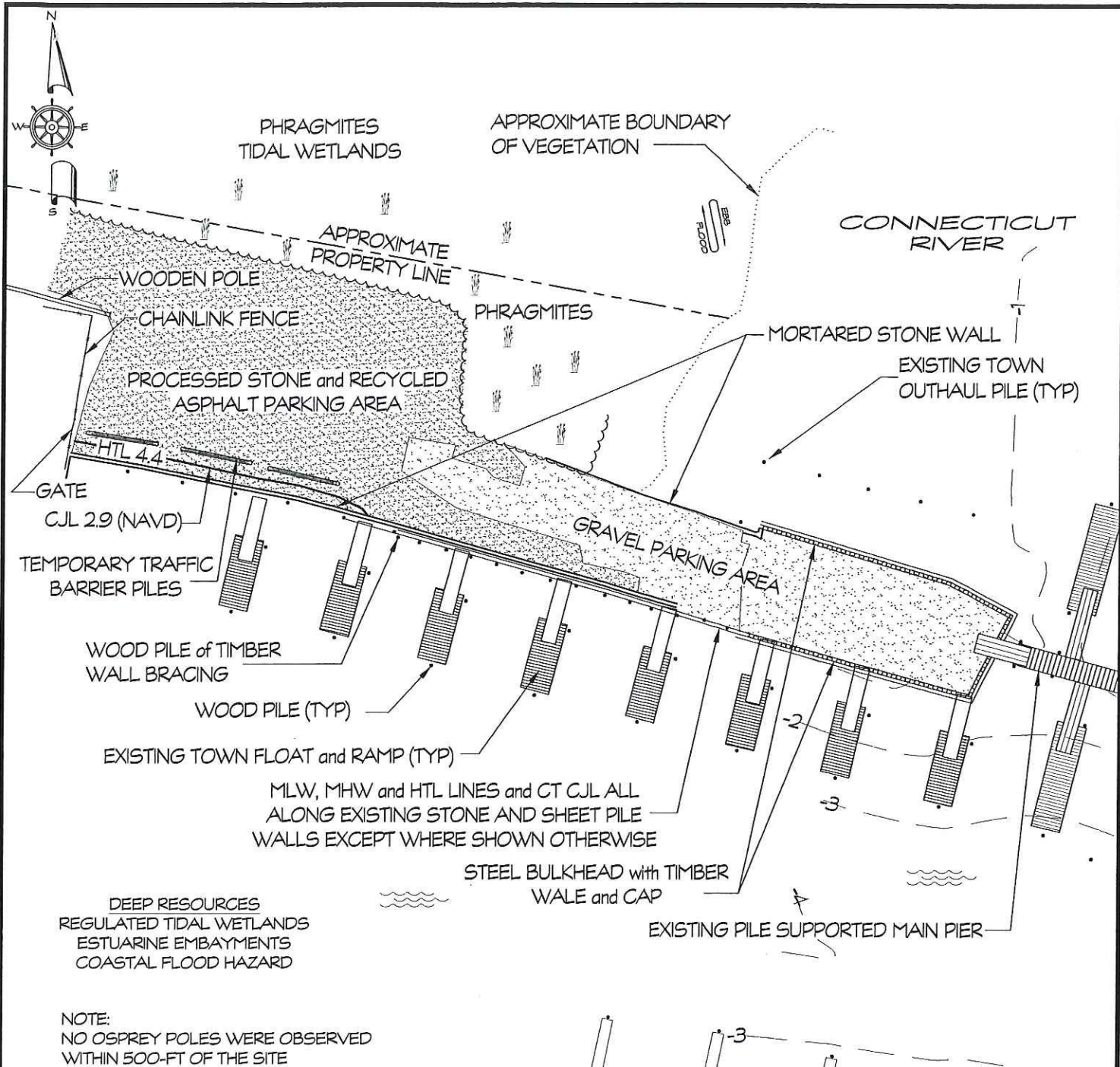
Mystic, CT 06355

860 572 8939 FAX 860 572 7569

EMAIL: office@docko.com



DWG 16-08-2774



## EXISTING CONDITIONS



ASBUILT SURVEY BY GNCB CONSULTING ENGINEERS, P.C.  
SURVEY BY RESOURCE MANAGEMENT & MAPPING  
ELEVATIONS ARE BASED ON MEAN LOW WATER



PROJECT: DOCK MODIFICATIONS

LOCATION: FERRY ROAD - TOWN OF OLD SAYBROOK  
MIDDLESEX COUNTY, CONNECTICUT

WATERWAY: CONNECTICUT RIVER

DATE: JANUARY 20, 2017

APPLICANT: TOWN OF OLD SAYBROOK

AGENT: SHEET 2A OF 4

**DOEKO, INC.**

Keith B. Neilson, PE

Mystic, CT 06355

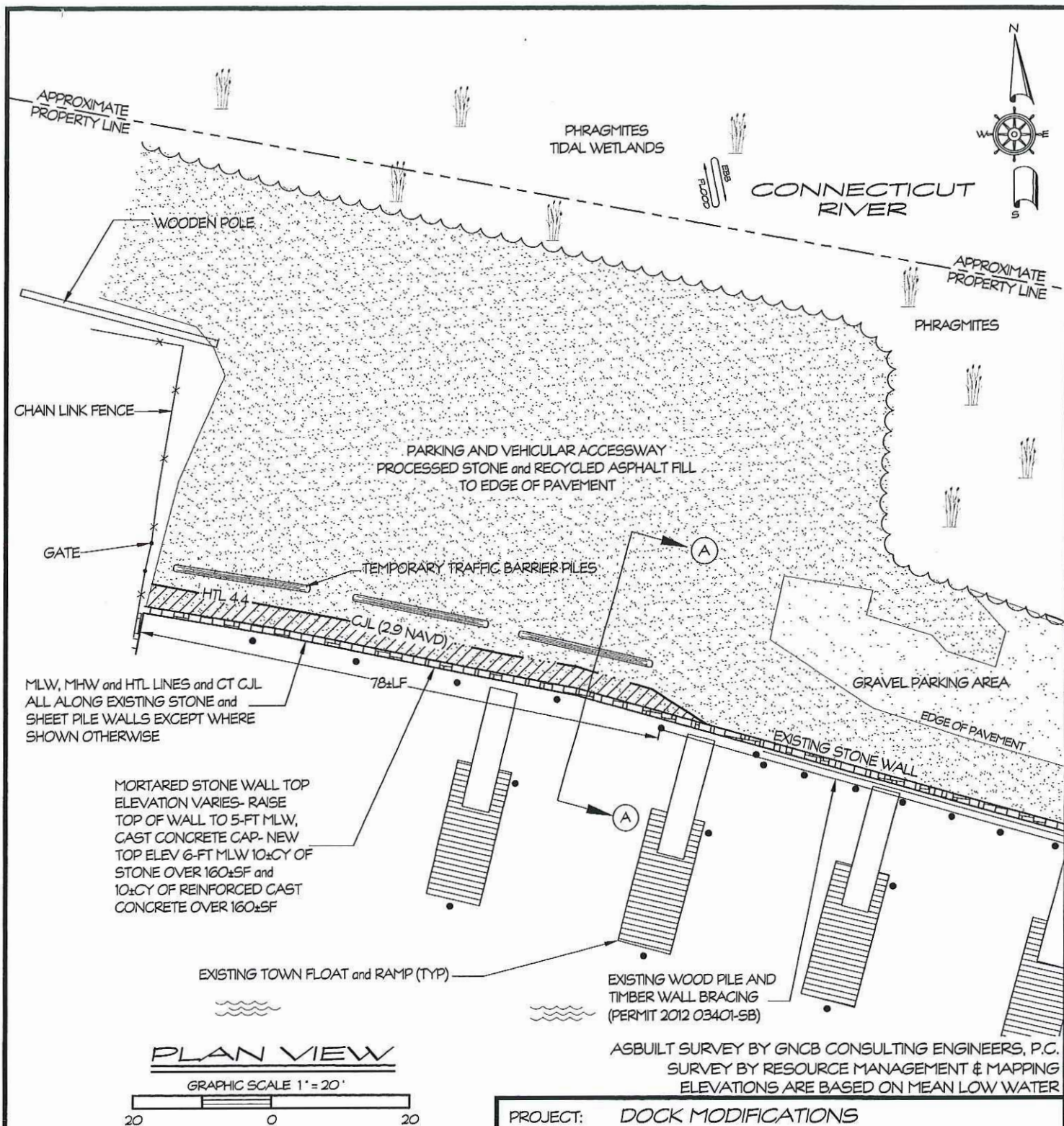
860 572 8939 FAX 860 572 7569

EMAIL: office@doeko.com



DWG 16-08-2774





PROJECT: DOCK MODIFICATIONS

LOCATION: FERRY ROAD - TOWN OF OLD SAYBROOK  
MIDDLESEX COUNTY, CONNECTICUT

WATERWAY: CONNECTICUT RIVER

DATE: JANUARY 20, 2017

APPLICANT: TOWN OF OLD SAYBROOK

AGENT: SHEET 3A OF 4

**DOCKO, INC.**

Keith B. Neilson, PE

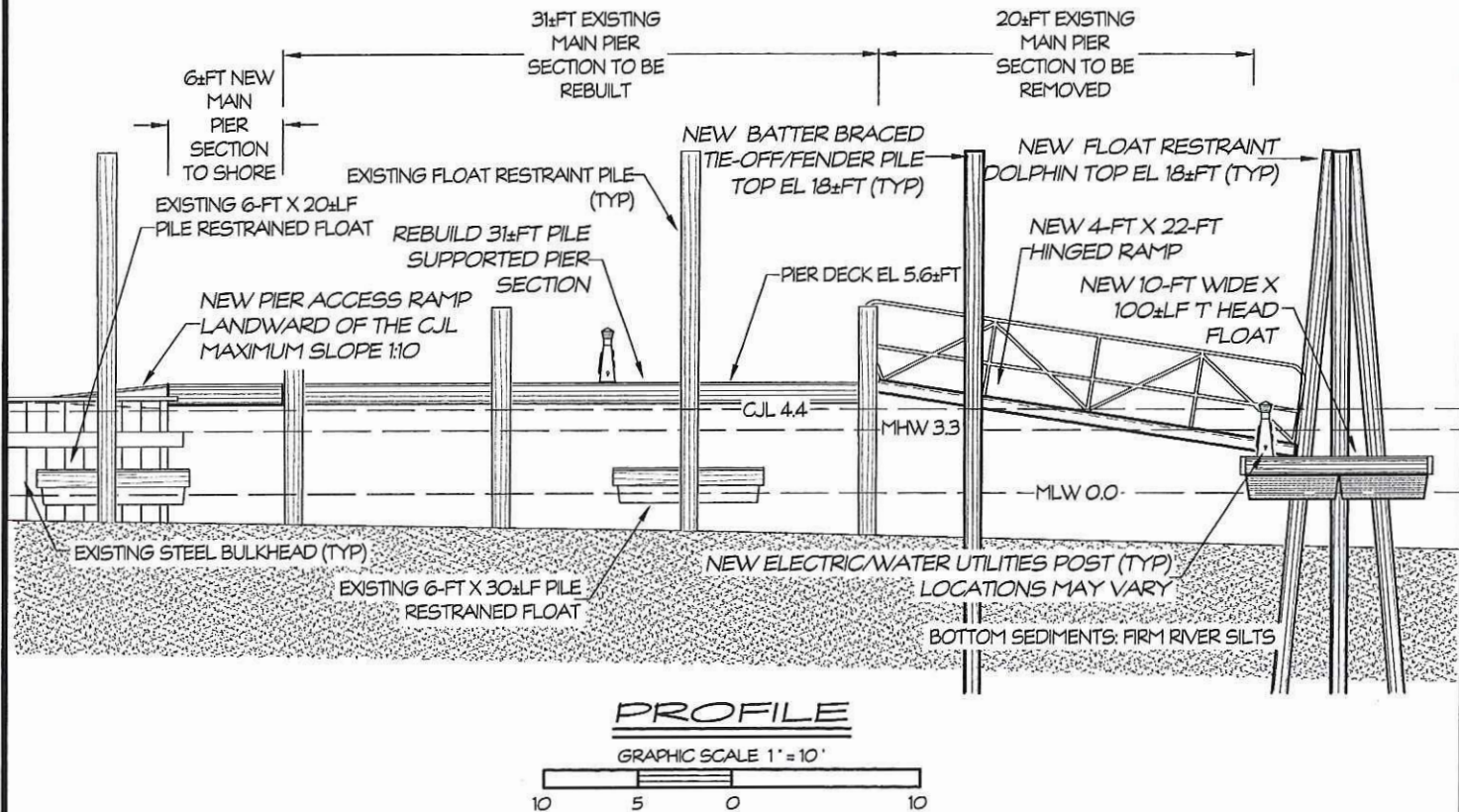
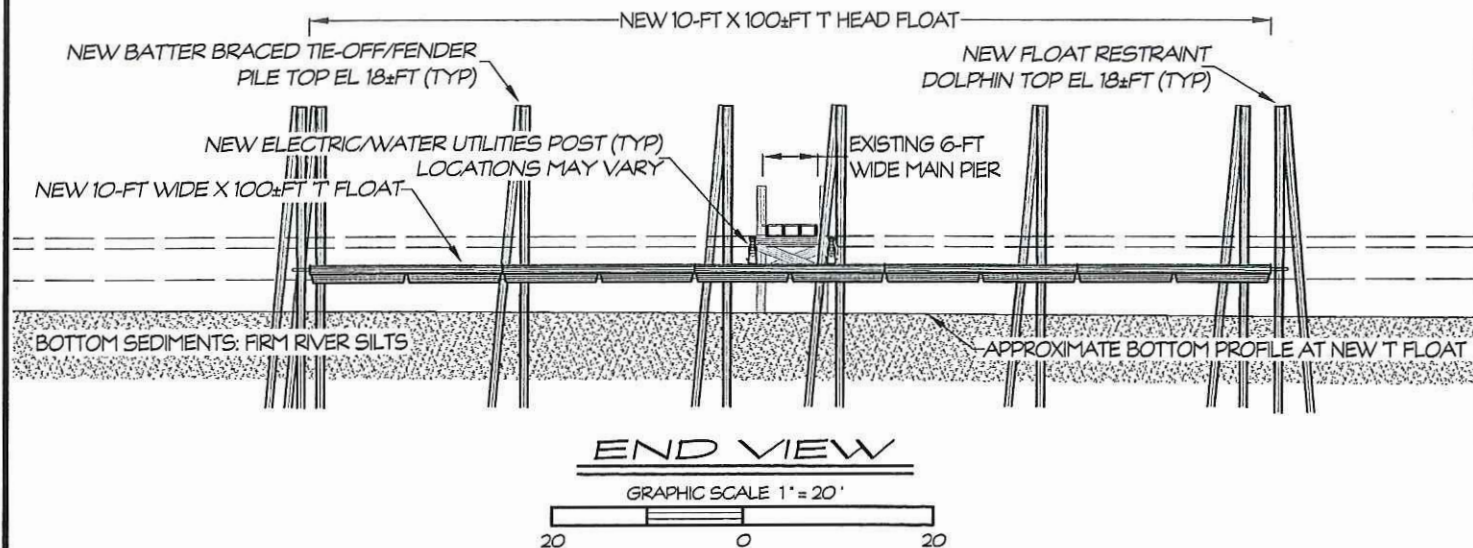
Mystic, CT 06355

860 572 8939 FAX 860 572 7569

EMAIL: office@docko.com



DWG 16-08-2774



ELEVATIONS ARE BASED ON MEAN LOW WATER

PROJECT: DOCK MODIFICATIONS

LOCATION: FERRY ROAD - TOWN OF OLD SAYBROOK  
MIDDLESEX COUNTY, CONNECTICUT

WATERWAY: CONNECTICUT RIVER

DATE: JANUARY 20, 2017

APPLICANT: TOWN OF OLD SAYBROOK

AGENT: SHEET 4 OF 4

**DOCKO, INC.**

Keith B. Neilson, PE

Mystic, CT 06355

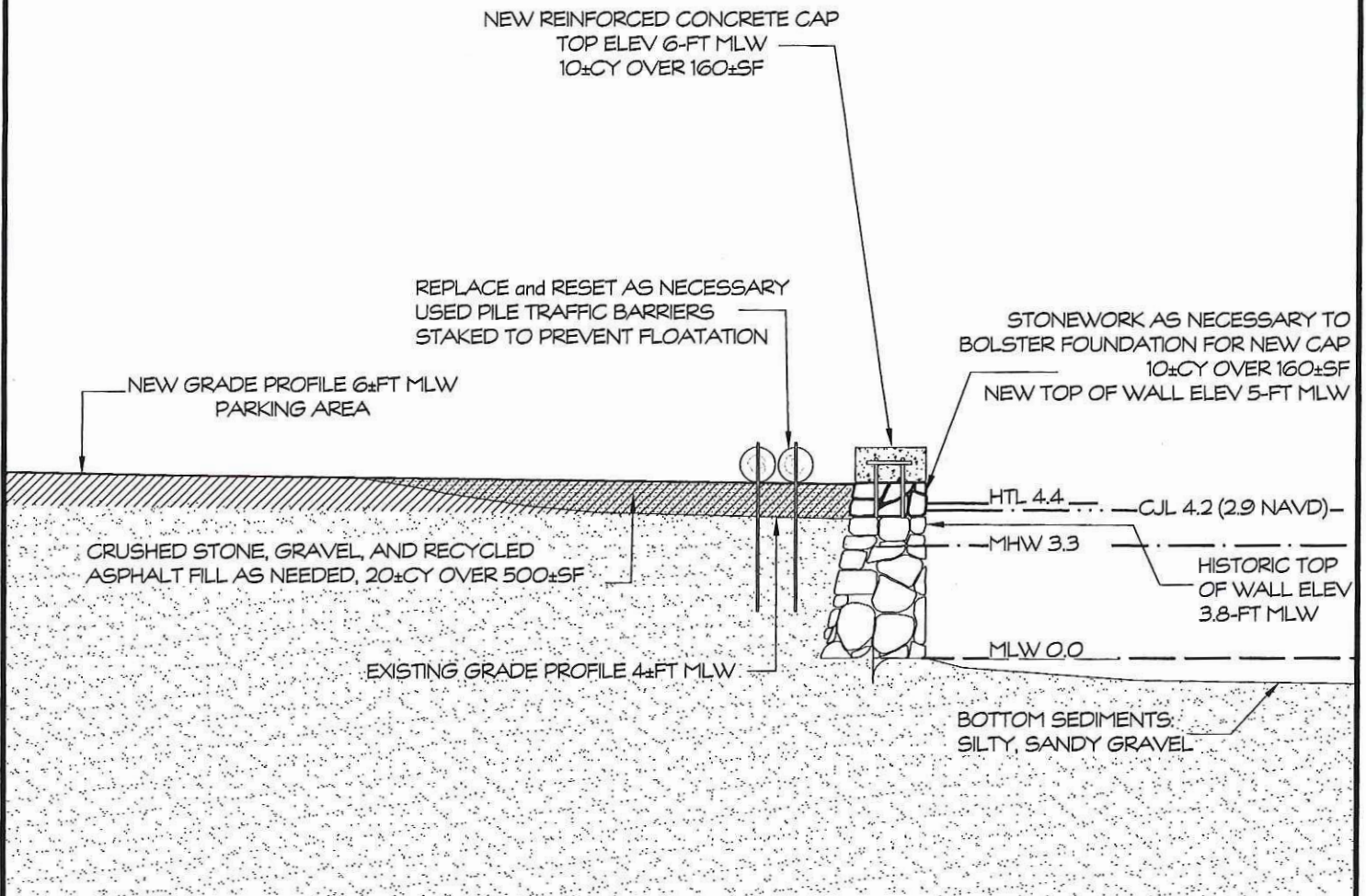
860 572 8939 FAX 860 572 7569

EMAIL: office@docko.com

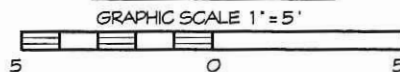


DWG 16-08-2774





### TYPICAL SECTION A-A



ELEVATIONS ARE BASED ON MEAN LOW WATER



PROJECT: DOCK MODIFICATIONS

LOCATION: FERRY ROAD - TOWN OF OLD SAYBROOK  
MIDDLESEX COUNTY, CONNECTICUT

WATERWAY: CONNECTICUT RIVER

DATE: JANUARY 20, 2017

APPLICANT: TOWN OF OLD SAYBROOK

AGENT: SHEET 4A OF 4

**DOCKO, INC.**

Keith B. Nelson, PE

Mystic, CT 06355

860 572 8939 FAX 860 572 7569

EMAIL: office@docko.com



DWG 16-08-2774



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS  
696 VIRGINIA ROAD  
CONCORD, MASSACHUSETTS 01742-2751

May 8, 2017

Regulatory Division  
File Number: NAE-2012-00790  
CT DEEP #: 201702850

Town of Old Saybrook  
c/o Raymond Collins  
302 Main Street  
Old Saybrook, CT 06475

Dear Mr. Collins:

We have reviewed the application to the CT Dept. of Energy & Environmental Protection, Land and Water Resources Division to remove an existing 10' wide x 100' long pile supported "T" head pier and replace it with a new 10' wide x 100' long "T" head float with tie-off piles and restraint piles. Work also includes removing 20 LF of an existing 10' wide pile supported main pier and replacing it with a new 4' wide x 22' long hinged ramp that will connect to the new pier head. The rest of the main fixed pier will be extended 6' shoreward. Additional work includes installing a new concrete cap on top of an existing seawall and placing new gravel behind the existing seawall/cap. The work will be conducted in the Connecticut River located at the property at the intersection of Clark Street and Ferry Road in Old Saybrook, Connecticut as shown on the attached plans, entitled "Dock Modifications," in four sheets dated "January 20, 2017" and revised "March 9, 2017."

Based on the information you have provided, we have determined that your project, which includes work and/or a discharge of dredged or fill material into waters of the United States, including wetlands, will have no more than minimal individual and cumulative adverse effects on the aquatic environment. Therefore, this work is authorized under General Permit #2 of the enclosed Federal permit known as the Connecticut General Permits (GPs). This work must be performed in accordance with the terms and conditions of the GPs and also in compliance with the following special conditions:

1. The applicant must use turbidity curtains and/or other appropriate sedimentation controls during construction as to prevent turbidity impacts to fisheries resources.
2. All sedimentation controls must be removed upon completion of the work.
3. No machinery shall be stored in wetlands or rest on the substrate during construction activities.

This authorization requires you to complete and return the enclosed Work Start Notification Form and Mitigation Work Start Notification Form to this office at least two weeks before the anticipated starting date.

The Corps of Engineers has consulted with the National Marine Fisheries Service (NMFS) regarding the effects of your project on Essential Fish Habitat (EFH) as designated under the

Magnuson-Stevens Fishery Conservation and Management Act. The NMFS provided EFH conservation recommendations, which we included in special condition #1 and #2 listed above. These conditions are intended to protect fisheries resources from turbidity impacts at the project site.

You are responsible for complying with all of the GPs' requirements. Please review the enclosed GPs carefully, in particular the general conditions. You should ensure that whoever does the work fully understands the requirements and that a copy of the permit document and this authorization letter are at the project site throughout the time the work is underway.

This authorization expires on August 19, 2021, unless the GP is modified, suspended, or revoked before then. You must commence or be under contract to commence the work authorized herein by this expiration date and complete the work within one year of this expiration date or you must contact this office to determine the need for further authorization before beginning or continuing the activity. We recommend you contact us *before* these GPs expire to discuss permit reissuance.

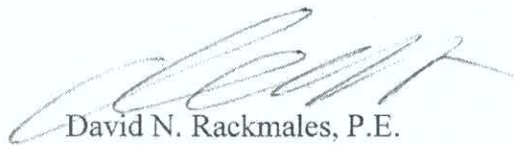
If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law, as listed in Section 2 of this GP. Performing work not specifically authorized by this determination or failing to comply with any special condition(s) provided above or all the terms and conditions of the GP may subject you to the enforcement provisions of our regulations.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=regulatory\\_survey](http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey)

Please contact Lindsay Flieger, of my staff, at (978) 318-8656 if you have any questions.

Sincerely,



David N. Rackmales, P.E.  
Chief, Permits & Enforcement Branch  
Regulatory Division

Enclosure(s)

Copy Furnished:

Brain Golembiewski, CT DEEP, Chief, Land & Water Resources Division – via email  
Docko, Inc.- via email

**Applicant: General Public, State of Connecticut**

**Effective Date: August 19, 2016**

**Expiration Date: August 19, 2021**

**DEPARTMENT OF THE ARMY  
GENERAL PERMITS FOR THE  
STATE OF CONNECTICUT  
&  
LANDS LOCATED WITHIN THE  
BOUNDARIES OF AN INDIAN RESERVATION<sup>1</sup>**

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues twenty-one (21) General Permits (GPs), listed below, for activities subject to Corps jurisdiction in waters of the United States (U.S.), including navigable waters, within boundaries of the State of Connecticut and lands located within the boundaries of an Indian reservation. These GPs are issued in accordance with Corps regulations at 33 CFR 320 - 332 [see 33 CFR 325.5(c)(1)], and authorizes activity-specific categories of work that are similar in nature and cause no more than minimal individual and cumulative adverse environmental impacts. These GPs will provide protection to the aquatic environment and the public interest while effectively authorizing activities that have no more than minimal individual and cumulative adverse environmental effects.

**GENERAL CRITERIA**

In order for activities to qualify for these GPs, they must meet the terms and eligibility criteria and stipulations listed in Appendix A – General Permits as well as the Appendix B General Conditions.

Projects may qualify for the following:

- Self-Verification (inland) - Self -Verification Notification Form (SVNF) is required
- Self-Verification (coastal) - SVNF NOT required. Corps relies on CT DEEP, OLISP submittals.
- Pre-Construction Notification (PCN) -
  - Inland - Application to and written approval from the Corps is required.
  - Coastal - Notification to Corps provided by CT DEEP, OLISP or by applicants as necessary. Written approval from the Corps is required.

If your project is ineligible for Self-Verification (SV), it may be screened under PCN or may require an Individual Permit. The thresholds for activities eligible for Self-Verification and PCN are defined in Appendix A. These GPs do not affect the Corps Individual Permit review process or activities exempt from Corps regulation.

---

<sup>1</sup> Indian reservation lands are considered a sovereign nation, and are therefore acknowledged separately from the State of Connecticut for purposes of this General Permit.

## **Connecticut General Permits**

An activity is authorized under GPs 1-21 below only if that activity and the permittee satisfy all of the GP's terms and conditions.

1. Aids to navigation & temporary recreational structures
2. Repair or maintenance of existing currently serviceable, authorized or grandfathered structures/fills, removal of structures
3. Moorings
4. Pile-supported structures & floats, including boat lifts/hoists and other miscellaneous Structures & work
5. Boat ramps and marine railways
6. Utility line activities
7. Dredging, transport & disposal of dredged material, beach nourishment, rock removal & rock relocation
8. Discharges of dredged or fill material incidental to the construction of bridges
9. Shoreline and bank stabilization projects
10. Aquatic habitat restoration, establishment and enhancement activities
11. Fish and wildlife harvesting activities
12. Oil spill and hazardous material cleanup
13. Cleanup of hazardous and toxic waste
14. Scientific measurement devices
15. Survey activities
16. Aquaculture projects and fisheries
17. New/expanded developments & recreational facilities
18. Linear transportation projects – wetland crossings only
19. Stream, river & brook crossings (not including wetland crossings)
20. Energy generation and renewable energy generation facilities and hydropower projects
21. Temporary fill not associated with any other GP activities

**SECTION 1**  
**REVIEW CATEGORIES AND APPLICATION PROCEDURES FOR PROJECTS WITHIN  
NON-TIDAL WATERS AND WETLANDS WITHIN THE STATE OF CONNECTICUT AND  
LANDS LOCATED WITHIN AN INDIAN RESERVATION**

**I. ACTIVITIES COVERED:**

The discharge of dredged or fill material into Waters of the United States, which is regulated by the Corps under Section 404 of the Clean Water Act (CWA), see 33 CFR 328.

**II. REVIEW PROCESS:**

**1. State and Local Approvals:**

In order for authorizations under these GPs to be valid and before commencing any work within Corps jurisdiction, applicants must apply for and obtain State Water Quality Certification as well as any local approvals (see **General Condition 1**):

**Water Quality Certification (WQC)** under Section 401 of the Federal CWA (33 USC Sec. 1341). Section 401(a)(1) of the Clean Water Act requires that applicants obtain a WQC or waiver from the state water pollution control agency which in Connecticut is the Connecticut Department of Energy and Environmental Protection (CT DEEP) or U.S. EPA for Indian reservation lands to discharge dredged or fill material into waters of the U.S. (see **attached Water Quality Certification and table**).

The CT DEEP, Inland Water Resources Division (CT DEEP IWRD) has conditionally granted WQC for Self-Verification (SV) activities in inland wetlands and waterways provided those activities meet the criteria as contained in the attached **Appendix A – General Permits** document.

The CT DEEP- IWRD has granted WQC with terms, limitations and conditions specified therein.

The CT DEEP- IWRD has waived WQC for GP 12, GP 13, GP 14, and GP 15.

The U.S. EPA granted WQC for Self-Verification and PCN activities located on lands within the boundaries of an Indian Reservation.

**2. General Permit Review Categories:**

**a. Self-Verification – An application to the Corps is NOT required. However, submittal of the attached Self-Verification Notification Form at Appendix E to the Corps and CT DEEP, IWRD is required prior to commencement of work authorized by these GPs.**

**Eligibility Criteria**

Activities in Connecticut and lands located within the boundaries of an Indian reservation that meet the following criteria are eligible under Self-verification of this General Permit:

- are subject to Corps jurisdiction (See **General Condition 2**),
- meet the criteria of Self-Verification in the attached **Appendix A - General Permits**, and
- meet the General Conditions of the GPs.

Project proponents seeking Self-Verification authorizations must comply with the General Conditions and other federal laws such as the National Historic Preservation Act, the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. Therefore, consultation with the Corps and/or outside experts, such as the State Historic Preservation Office and any appropriate Indian tribes, is recommended when there is a high likelihood of the presence of resources of concern.

**b. Pre-Construction Notification (PCN) – An application to the Corps is required.**

Projects not eligible under Self-Verification of the GPs may be screened under PCN, provided they meet the criteria as defined in the attached **Appendix A – General Permits** for PCN activities.

**Eligibility Criteria**

Activities in Connecticut and lands located within an Indian reservation that meet the following criteria are eligible under PCN of this General Permit:

- are subject to Corps jurisdiction (See **General Condition 2**),
- meet the criteria of PCN in the attached **Appendix A – General Permits**, and
- meet the General Conditions of the GPs.

**3. Applying for an authorization through the PCN process:**

Applicants must also submit two copies of the following to the Corps, on a CD if available and hard copy:

- Corps application form (ENG Form 4345) found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx>
- 8.5" x 11" or 11" x 17" drawings and one large-scale drawing,
- wetlands functions and values assessment,
- Federal wetland delineation documentation (data sheets),
- The CT DEEP addendum found at: [http://www.ct.gov/deep/lib/deep/Permits\\_and\\_Licenses/LandUse\\_General\\_Permits/Inland\\_Water\\_General\\_Permits/CT\\_addendum\\_app.pdf](http://www.ct.gov/deep/lib/deep/Permits_and_Licenses/LandUse_General_Permits/Inland_Water_General_Permits/CT_addendum_app.pdf)
- Correspondence with the State Historic Preservation Office and Tribal Historic Preservation Officer indicating coordination with these entities along with a completed CT SHPO Form. The CT SHPO Form is available on the CT SHPO website under Historic Preservation – Environmental Review at [http://www.cultureandtourism.org/cct/lib/cct/Project\\_Notification\\_Form\\_final.pdf](http://www.cultureandtourism.org/cct/lib/cct/Project_Notification_Form_final.pdf)
- a plan describing any proposed mitigation along with an Invasive Species Control Plan.

Applicants must concurrently submit three copies of the following to the CT DEEP at the address below:

- the Corps application form,
- 8.5" x 11" or 11" x 17" drawings and one large-scale drawing,
- wetlands functions and values assessment,
- Federal wetlands delineation documentation (data sheets),
- CT DEEP addendum, and
- a plan describing any proposed mitigation.

**State of Connecticut  
Department of Energy & Environmental Protection  
Central Permit Processing Unit  
79 Elm Street  
Hartford, CT 06106-5127**

**NOTE: Applicants must submit all project revisions and modifications to both agencies.**

The Corps will coordinate review of all PCN activities with federal and state agencies to ensure that the proposed activity results in no more than a minimal impact to the aquatic environment. To be eligible and subsequently authorized, an activity must meet the eligibility criteria in **2. General Permit Review Categories** above and result in no more than minimal impacts to the aquatic environment as determined by the Corps in conjunction with the interagency review team which consists of federal and state resource agencies. This may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal.

**Written approval from the Corps for PCN activities is required before work can commence.**

**Emergency Situation Procedures:** 33 CFR 325.2 (e) (4) states that an "emergency" is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures." Notification to the Corps and CT DEEP – IWRD is required. The Corps will determine if a project qualifies as an emergency and will work with all applicable agencies to expedite authorization in emergency situations. If the project qualifies as an emergency, authorization under Self-verification or PCN of the GPs is not required.

**Individual Permit Procedures:** Work that is **NOT** eligible for authorization under the GPs as defined in the attached **Appendix A – General Permits**, or that does not meet the terms and conditions of the GPs, will require review under the Corps Individual Permit procedures (see 33 CFR Part 325.1). The applicant shall submit the appropriate application materials (including the Corps ENG 4345 application form) to the Corps of Engineers. General information and application forms can be obtained at the Corps web site noted in Paragraph 3 above. An individual Water Quality Certification is required from the CT DEEP, IWRD. **The application form and instructions for Section 401 Water Quality Certification are available from the Connecticut DEEP web site at [http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNav\\_GID=1643](http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNav_GID=1643).**



**TABLE 1. CONNECTICUT WATER QUALITY CERTIFICATION**  
**Water Quality Certification – Non-Tidal Waters, Wetlands, and Watercourses \***  
**Department of the Army - General Permits for the State of Connecticut**  
**WQC-201607149**  
**Page 1 of 5**

	Self-Verification (SV)	Pre-Construction Notification (PCN)
	<b><u>WHERE GRANTED, APPENDIX E: SELF-VERIFICATION NOTIFICATION FORM AND PLANS ARE REQUIRED TO BE FILED WITH CT DEEP – See Appendix E for instructions</u></b>	<b><u>WHERE GRANTED, APPLICATION TO CT DEEP IS REQUIRED – See Section 1, II. 3. (pages 2-3 ) of the Army Corps GP for instructions</u></b>
<b>GP 2. Repair or Maintenance of Existing Currently Serviceable, Authorized or Grandfathered Structures &amp; Fills, Removal of Structures</b>	<p>Granted subject to the following restriction:</p> <ul style="list-style-type: none"> <li>Drawdown does not exceed 18 months and one growing season (April through September)</li> </ul> <p><b>Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP 2. (See GP 19.)</b></p> <p><b>Culvert slip-lining is not eligible for Section 401 Water Quality Certification under GP2. (See GP 19.)</b></p>	<p>Granted for impacts not exceed 0.5 acre, subject to the following restriction:</p> <ul style="list-style-type: none"> <li>Drawdown does not exceed 18 months and one growing season (April through September)</li> </ul> <p><b>Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP 2. (See GP 19.)</b></p>
<b>GP 5. Boat Ramps &amp; Marine Railways</b>	Granted	Granted for impacts not exceeding 0.5 acre.
<b>GP 6. Utility Line Activities</b>	Granted	<p>Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP.</p> <p>Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process.</p> <p><b>Other activities with impacts exceeding 0.5 acre require individual (regular) Section 401 Water Quality Certification.</b></p>
<b>GP 9. Shoreline &amp; Bank Stabilization Projects</b>	<p>Granted for shoreline and banks stabilization activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP.</p> <p>Granted for shoreline and bank stabilization activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process.</p> <p><b>Other shoreline stabilization activities exceeding 50 feet in length are not eligible for Section 401 Water Quality Certification under SV.</b></p> <p><b>Other stream, river, or brook bank stabilization activities exceeding 50 feet in total length for one stream bank or 50 feet cumulative length for both stream banks are not eligible for Section 401 Water Quality Certification under SV.</b></p> <p><b>Activities that include the placement of fill within the streambed beyond the toe of slope of the stream bank are not eligible for Section 401 Water Quality Certification under SV</b></p>	<p>Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP.</p> <p>Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process.</p> <p><b>Other shoreline stabilization activities exceeding 100 feet in total length require individual (regular) Section 401 Water Quality Certification.</b></p> <p><b>Other stream, river, or brook bank stabilization activities exceeding 100 feet in total length for one stream bank or 100 feet cumulative length for both stream banks require individual (regular) Section 401 Water Quality Certification.</b></p>

**TABLE 1. CONNECTICUT WATER QUALITY CERTIFICATION**  
**Water Quality Certification – Non-Tidal Waters, Wetlands, and Watercourses \***  
**Department of the Army - General Permits for the State of Connecticut**  
**WQC-201607149**  
**Page 2 of 5**

	Self-Verification (SV)	Pre-Construction Notification (PCN)
	<b><u>WHERE GRANTED, APPENDIX E: SELF-VERIFICATION NOTIFICATION FORM AND PLANS ARE REQUIRED TO BE FILED WITH CT DEEP – See Appendix E for instructions</u></b>	<b><u>WHERE GRANTED, APPLICATION TO CT DEEP IS REQUIRED – See Section 1, II. 3. (pages 2-3 ) of the Army Corps GP for instructions</u></b>
<b>GP 10. Aquatic Habitat Restoration, Establishment &amp; Enhancement Activities</b>	<p>Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP.</p> <p>Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) or by a federal environmental resource management agency that receive written approval through a formal cooperative CT DEEP intra-agency screening process.</p> <p><b>Other activities are not eligible for Section 401 Water Quality Certification under SV.</b></p>	Granted
<b>GP 11. Fish &amp; Wildlife Harvesting Activities</b>	Granted	Granted
<b>GP 12. Oil Spill &amp; Hazardous Material Cleanup</b>	Waived	Waived
<b>GP 13. Cleanup of Hazardous &amp; Toxic Waste</b>	Waived	Waived
<b>GP 14. Scientific Measurement Devices</b>	Waived	Waived
<b>GP 15. Survey Activities</b>	Waived	Waived
<b>GP 17. New/Expanded Developments &amp; Recreational Facilities</b>	<p>Granted, except as noted below.</p> <p><b>New roadway and driveway crossings in wetlands are not eligible for Section 401 Water Quality Certification under GP 17. (See GP 18.)</b></p> <p><b>Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP17. (See GP 19.)</b></p>	<p>Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative state intra-agency screening process.</p> <p><b>Other activities with impacts exceeding 0.5 acre require individual (regular) Section 401 Water Quality Certification.</b></p> <p><b>New roadway and driveway crossings in wetlands are not eligible for Section 401 Water Quality Certification under GP 17. (See GP 18.)</b></p> <p><b>Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP 18. (See GP 19.)</b></p>

**TABLE 1. CONNECTICUT WATER QUALITY CERTIFICATION**  
**Water Quality Certification – Non-Tidal Waters, Wetlands, and Watercourses \***  
**Department of the Army - General Permits for the State of Connecticut**  
**WQC-201607149**  
**Page 3 of 5**

	Self-Verification (SV)	Pre-Construction Notification (PCN)
	<b><u>WHERE GRANTED, APPENDIX E: SELF-VERIFICATION NOTIFICATION FORM AND PLANS ARE REQUIRED TO BE FILED WITH CT DEEP – See Appendix E for instructions</u></b>	<b><u>WHERE GRANTED, APPLICATION TO CT DEEP IS REQUIRED – See Section 1, II. 3. (pages 2-3 ) of the Army Corps GP for instructions</u></b>
<b>GP 18. Linear Transportation Projects – Wetland Crossings Only</b>	<p style="text-align: center;">Granted</p> <p><b>Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP 18. (See GP 19.)</b></p>	<p>Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP.</p> <p>Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process.</p> <p><b>All other activities with impacts exceeding 0.5 acre require individual (regular) Section 401 Water Quality Certification.</b></p> <p><b>Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP 18. (See GP 19.)</b></p>
<b>GP 19. Stream, River &amp; Brook Crossings (Not Including Wetland Crossings)</b>  Continued on next page	<p>Granted for stream, river or brook crossings that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP.</p> <p>Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process.</p> <p>Granted for all other stream, river, brook or other watercourse crossings by means of a BRIDGE or OPEN-BOTTOM STRUCTURE that meets the following standards:</p> <ul style="list-style-type: none"> <li>spans at least 1.2 times the watercourse bank full width,</li> <li>allows for the continuous, uninterrupted flow of the 50-year frequency storm flows,</li> <li>no riprap is placed within or across the bed of the brook; and,</li> <li>appurtenant stream bank stabilization does not exceed 50 feet along any upstream or downstream bank.</li> </ul> <p><b>Stream, river, brook and other watercourse crossings that do not meet the standards above are not eligible Section 401 Water Quality Certification for Self-Verification.</b></p> <p><b>Culvert slip lining is not eligible for Section 401 Water Quality Certification for Self-Verification.</b></p> <p><b>Wetland crossings are not eligible for Section 401 Water Quality Certification under GP 19. (See GP 18.)</b></p>	<p>Granted for stream, river or brook crossings that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP.</p> <p>Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process.</p> <p><b>All other stream, river and brook crossings require individual (regular) Section 401 Water Quality Certification.</b></p> <p><b>Wetland crossings are not eligible for Section 401 Water Quality Certification under GP 19. (See GP 18.)</b></p>

**TABLE 1. CONNECTICUT WATER QUALITY CERTIFICATION**  
**Water Quality Certification – Non-Tidal Waters, Wetlands, and Watercourses \***  
**Department of the Army - General Permits for the State of Connecticut**  
**WQC-201607149**  
**Page 4 of 5**

	Self-Verification (SV)	Pre-Construction Notification (PCN)
	<b><u>WHERE GRANTED, APPENDIX E: SELF-VERIFICATION NOTIFICATION FORM AND PLANS ARE REQUIRED TO BE FILED WITH CT DEEP – See Appendix E for instructions</u></b>	<b><u>WHERE GRANTED, APPLICATION TO CT DEEP IS REQUIRED – See Section 1, II. 3. (pages 2-3 ) of the Army Corps GP for instructions</u></b>
<b>GP 19. Stream, River &amp; Brook Crossings (Not Including Wetland Crossings)</b>	<p>Granted for stream, river, brook or other watercourse crossings using a culvert provided:</p> <ul style="list-style-type: none"> <li>the tributary watershed to the culvert does not exceed 1 sq. mile (640 acres);</li> <li>the culvert gradient (slope) is no steeper than the streambed gradient immediately upstream or downstream of the culvert,</li> <li>for a crossing constructed using a single box or pipe arch culvert, the inverts are set not less than 12 inches below the streambed elevation</li> <li>for a crossing constructed using multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set not less than 12 inches below the elevation of the streambed,</li> <li>for a crossing constructed using a pipe culvert, the inverts are set such that not less than 25% of the pipe diameter or 12 inches, whichever is less, is set below the streambed elevation,</li> <li>the culvert is backfilled with natural substrate material matching upstream and downstream streambed substrate,</li> <li>the structure, including inlet and outlet protection measures, does not otherwise impede the passage of fish and other aquatic organisms, and</li> <li>the structure allows for continuous flow of the 50-year frequency storm flows</li> </ul>	
<b>GP 21. Temporary Fill Not Associated With Any Other GP Activities</b>	Granted	<p>Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP.</p> <p>Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process.</p> <p><b>Other activities with impacts exceeding 0.25 acre require individual (regular) Section 401 Water Quality Certification.</b></p>

**TABLE 1. CONNECTICUT WATER QUALITY CERTIFICATION**  
**Water Quality Certification – Non-Tidal Waters, Wetlands, and Watercourses \***  
**Department of the Army - General Permits for the State of Connecticut**  
**WQC-201607149**  
**Page 5 of 5**

**\* ACTIVITIES NOT ELIGIBLE FOR SECTION 401 CERTIFICATION UNDER THIS GENERAL PERMIT CERTIFICATION**

The following activities are not eligible for Section 401 Water Quality Certification under this general permit certification and will require an individual (regular) Section 401 Water Quality Certification:

Detention or retention of stormwater in non-tidal waters, wetlands or watercourses including any watercourse or wetland crossing that by design or default functions to provide stormwater detention, and any construction of a stormwater detention or retention basin in non-tidal waters or wetlands.

Piping, boxing, enclosing or covering of a non-tidal watercourse for a purpose other than a driveway or roadway crossing.

Activities with direct, indirect or secondary impact(s) to: Special Wetlands<sup>(1)</sup>, Threatened, Endangered, or Special Concern Species<sup>(2)</sup>, Significant Natural Communities/Critical Habitats<sup>(2)</sup> identified by the Connecticut Natural Diversity Database.

Activities within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain<sup>(3)</sup>.

**DEFINITIONS**

<sup>(1)</sup> **Special Wetlands:** Include vernal pools, bogs, fens, cedar swamps, spruce swamps, calcareous seepage swamps, and wetlands that provide habitat for threatened or endangered species or species of special concern as designated by the State of Connecticut Natural Diversity Database. The following definitions for bogs, calcareous seepage wetlands, cedar swamps, fens, spruce swamps, and vernal pools apply for the purposes of this GP:

**Bog:** a peat accumulating wetland dominated by sphagnum moss. Typical plant species include sphagnum moss, leatherleaf, black spruce, pitcher plant and sundew.

**Calcareous Seepage Swamp:** a forested wetland characterized by the discharge of groundwater with a chemistry influenced by an underlying limestone geology.

**Cedar Swamp:** a forested wetland characterized by the presence of Northern White Cedar or Atlantic White Cedar.

**Fen:** a peat accumulating wetland dominated by sedges and/or ericaceous shrubs. Typical plant species include low sedges, ericaceous shrubs, sphagnum and other mosses.

**Spruce Swamp:** a forested wetland characterized by the presence of Red or Black Spruce.

**Vernal Pool:** an often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools support populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles and invertebrates. Vernal pools lack breeding populations of fish. **All vernal pools are subject to the jurisdiction of the Connecticut Department of Energy and Environmental Protection under Connecticut Water Quality Standards.**

<sup>(2)</sup> **Threatened, Endangered or Special Concern Species; Significant Natural Communities/Critical Habitats:** Species listed by CT DEP pursuant to Chapter 495 of the Connecticut General Statute as threatened or endangered species or species of special concern. General locations of threatened and endangered species and species of special concern, and significant natural communities/critical habitats are identified on maps published by the Connecticut Department of Energy and Environmental Protection entitled "Natural Diversity Data Base Areas" and on the CTECO Interactive Map Viewers at [www.cteco.uconn.edu](http://www.cteco.uconn.edu).

<sup>(3)</sup> **Adverse Effect to Hydraulic Characteristics:** An adverse effect to hydraulic characteristics includes an increase in flood water surface elevation, an increase in flood flow velocity or a restriction of flood flow conveyance in a manner that would impact upstream, downstream or adjacent property.



## **SECTION 2:**

### **REVIEW CATEGORIES & APPLICATION PROCEDURES FOR PROJECTS WITHIN TIDAL, COASTAL AND NAVIGABLE WATERS WITHIN THE STATE OF CONNECTICUT**

Connecticut's coastal area is statutorily defined as: all lands and waters within the municipalities of Greenwich, Stamford, Darien, Norwalk, Westport, Fairfield, Bridgeport, Stratford, Shelton, Milford, Borough of Woodmont, Orange, West Haven, New Haven, Hamden, North Haven, East Haven, Branford, Guilford, Madison, Clinton, Westbrook, Deep River, Chester, Essex, Borough of Fenwick, Old Saybrook, Lyme, Old Lyme, East Lyme, Waterford, New London, Montville, Norwich, Preston, Ledyard, Groton (city, Town and Long Point Borough), Mystic and Stonington (Town & Borough) [Section 22a-94(a) CGS].

**Navigable Waters:** Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The Connecticut River has been determined to be a navigable water of the United States. [Refer to Title 33 CFR Part 329]

#### **I. ACTIVITIES COVERED:**

- Work and structures that are located in, under or over any navigable water of the U.S. (defined at 33 CFR 329) that affect the course, location, condition, or capacity of such waters; or the excavating from or depositing material in navigable waters. (Regulated by the Corps under Section 10 of the Rivers and Harbors Act of 1899);
- The discharge of dredged or fill material into waters of the U.S. (defined at 33 CFR 328), which is regulated by the Corps under Section 404 of the Clean Water Act (CWA)
- The transportation of dredged material for the purpose of disposal in the ocean. The Corps regulates these activities under Section 103 of the Marine Protection, Research and Sanctuaries Act. See 33 CFR 324.

#### **II. REVIEW PROCESS:**

##### **1. Connecticut Department of Energy & Environmental Protection, Office of Long Island Sound Programs (DEEP OLISP) approvals:**

In order for authorizations under these GPs to be valid and before commencing any work within Corps jurisdiction, applicants are responsible for applying for and obtaining any of the following required State or local approvals (see **General Condition 1**):

**Water Quality Certification (WQC)** Issuance or waiver under Section 401 of the Federal CWA (33 USC Section 1341). Section 401(a)(1) of the Clean Water Act requires that applicants obtain a WQC or waiver from the state water pollution control agency (CT DEEP) or EPA for Indian reservation lands to discharge dredged or fill material into waters of the U.S.

**Coastal Zone Management Consistency (CZM)** - Concurrence under Section 307 of the Federal CZM Act of 1972, as amended. Section 307(c) of the CZM of 1972, as amended, requires applicants to obtain a certification or waiver from CT DEEP OLISP that the activity complies with the state's CZM program for activities affecting a state's Coastal Area.

Project proponents involving dredging/excavation and associated disposal within the Byram River must also coordinate with NY DOS directly to obtain a certification or waiver that the activity complies with NYDOS' CZM program. Also, all projects with disposal at any of the Long Island Sound Disposal Sites require NY DOS CZM consistency. Additional information can be found at their website: <http://www.dos.ny.gov/opd/programs/consistency/>.

## **2. Corps Authorizations:**

**a. Self-Verification (SV) – Applicants are not required to submit an Application or Appendix E to the Corps.** Instead, DEEP OLISP will forward copies of application packages and their approvals to the Corps on a weekly basis. If the Corps determines that a project meets this category, the Corps will forward verification of eligibility to the applicant.

### **Eligibility Criteria**

Activities in Connecticut and lands located within the boundaries of an Indian reservation may proceed without application or notification to the Corps if they:

- are subject to Corps jurisdiction
- meet the definition of Self-Verification in **Appendix A - General Permits**, and
- meet the General Conditions of the GPs

**Note:** Activities subject to Corps jurisdiction that are NOT regulated by the DEEP OLISP will be subject to the Pre-Construction Notification (PCN) screening requirements of the GPs as noted below.

Project proponents seeking eligibility under the SV category must comply with the General Conditions of the GPs and other federal laws such as the National Historic Preservation Act, the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. Therefore, consultation with the Corps and/or outside experts such as the State Historic Preservation Office and any appropriate Indian tribes is recommended when there is a likelihood of the presence of resources of concern.

### **b. Pre-Construction Notification (PCN) (notification/application and written authorization required)**

Projects not eligible under the SV category of the GPs may be screened under PCN category, provided they meet the criteria.

### **Eligibility Criteria**

Activities in Connecticut and lands located within the boundaries of an Indian reservation that meet the following criteria **require written approval from the Corps**:

- are subject to Corps jurisdiction,
- meet the definition of PCN in this Section, and
- meet the General Conditions of the GPs

### **3. Applying for authorization through the PCN process:**

#### **a. CT DEEP, OLISP regulated activities**

Structures and Dredging Permit Applications: Applicants/agents shall submit to the Corps, a copy of the DEEP Permit Consultation Form for U.S. Army Corps of Engineers Review along with project plans. The Corps will then coordinate this information with the interagency review team (see paragraph 4 below) and then return the form to applicants/agents for their submission to DEEP OLISP.

Certificates of Permission (COPs), General Permits (GPs) and Modifications: OLISP will forward copies of application packages and approvals to the Corps. If a project is determined to meet any of the PCN activities and is complete, the Corps will coordinate these projects with the interagency review team. If the Corps determines that an Individual permit or additional information is required, the Corps will coordinate directly with the applicant/agent.

**NOTE:** For projects which involve dredging and open water disposal - Applicants/agents must submit requests for sampling plans to the DEEP, OLISP and the Corps simultaneously, along with other required information specific to dredging/open water disposal, a detailed open water disposal site alternative analysis, and a completed New York State, Department of State (NYS DOS) Federal Consistency Assessment Form found at <http://nyswaterfronts.com/downloads/pdfs/fcaf2.pdf>. Please see our website at <http://www.nae.usace.army.mil/Regulatory/> for a list of all required additional information.

#### **b. Aquaculture activities regulated by the Connecticut Department of Agriculture**

This refers to marine- and land-based aquaculture activities, including associated structures regulated by the Department of Agriculture, Bureau of Aquaculture (DA/BA), Connecticut General Statutes Section 22-11h.

Applicants should apply directly to the DA/BA using the Joint Application for Aquaculture form found at: [http://www.nae.usace.army.mil/reg/Permits/CT\\_AquacultureApplication.pdf](http://www.nae.usace.army.mil/reg/Permits/CT_AquacultureApplication.pdf). The DA/BA will forward a copy of the aquaculture application package to the Corps, the State of Connecticut Department of Energy & Environmental Protection's (CT DEEP) Boating Division, Marine Fisheries Division, Office of Long Island Sound Programs (OLISP), and CT DEEP, Inland Water Resources Division (IWRD) for activities impacting inland waters.

These application packages for marine-based activities will be screened by the Corps, the Federal resource agencies, and the CT DEEP, OLISP with input from the CT DEEP Boating and Marine Fisheries Divisions. Screening will also initiate review of the application by the CT DEEP OLISP for Coastal Zone Management consistency concurrence. The CT DEEP OLISP will make a determination on the completeness of the application for CZM consistency review and/or the eligibility of the activity for state aquaculture permit exemption within 30 days from the date of the screening meeting.

#### **4. Review Procedures:**

The Corps will coordinate review of all PCN activities with federal and state agencies (interagency review team), as necessary. To be eligible and subsequently authorized, an activity must meet the eligibility criteria listed above and result in no more than minimal impacts to the aquatic environment as determined by the Corps. This may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal. Applicants are responsible for applying for the appropriate state and local approvals. Authorizations under these GPs are not valid until all required CT DEEP, OLISP authorizations are granted.

**Emergency Situation Procedures:** 33 CFR 325.2 (e)(4) states that an “emergency” is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.” Notification to the Corps is required. The Corps will determine if a project qualifies as an emergency and will work with all applicable agencies to expedite authorization in emergency situations. If the project qualifies as an emergency, authorization under these General Permits is not required.

**Individual/Standard Permit Procedures:** Work that is not eligible under PCN activities as described therein or that does not meet the terms and general conditions of the GPs, will require the submission of an application to the Corps for an Individual Permit (see 33 CFR Part 325.1). The applicant should submit the appropriate application form and materials at the earliest possible date. General information and application forms can be obtained at our website at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx> or by calling us. Individual WQC and CZM consistency concurrence are required, when applicable, from the State of Connecticut before Corps issuance of an individual permit. Individual Water Quality Certification must be obtained from EPA for activities on lands located within the boundaries of an Indian reservation. The Corps encourages applicants to concurrently apply for a Corps Individual Permit and state permits.

## APPENDIX A – GENERAL PERMITS

### **GP 1. AIDS TO NAVIGATION & TEMPORARY RECREATIONAL STRUCTURES (Section 10; navigable waters of the United States)**

The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard (see 33 CFR, chapter I, subchapter C, part 66)

<b>Self-Verification (SV) Eligible</b>	<b>Pre-Construction Notification (PCN) Required</b>
<p>Aids to navigation and regulatory markers that are not located within Corps Federal Navigation Projects (FNPs*).</p> <p>Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are not located within Corps FNPs <b>and</b> are removed within 30 days after use is discontinued.</p> <p>No structures in Submerged Aquatic Vegetation</p> <p><b>*FNPs are comprised of Federal Channels, anchorages and turning basins. Please click on the link below for more information:</b> <a href="http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/">http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/</a></p>	<p>Work not eligible for SV.</p> <p>Aids to navigation or temporary markers, floats, etc. that are within a Corps FNP.</p> <p>Temporary markers, floats, etc. that are not to be removed within 30 days.</p>

**GP 2. REPAIR OR MAINTENANCE OF EXISTING CURRENTLY SERVICEABLE, AUTHORIZED OR GRANDFATHERED\* STRUCTURES & FILLS, REMOVAL OF STRUCTURES (Section 10 & 404; tidal and non-tidal waters of the U.S.)**

Repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. Includes removal of structures and fill. **Not authorized under GP 2:** (a) Permanent impacts >1/2 acre in tidal and non-tidal waters and/or wetlands, >1000 SF in tidal Special Aquatic Site (SAS) other than vegetated shallows, or >100 SF in tidal vegetated shallows.

**Self-Verification (SV) Eligible**

≤5,000 s.f. of impacts in non-tidal waters & wetlands.

No fill in tidal waters & wetlands.

Bulkhead replacement via installation of new bulkhead within 18" of existing bulkhead & backfill.

Drawdown of impoundment for dam/levee repair provided it does not exceed 18 months and one growing season (April through September)

Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project or within the boundaries of the structure or fill.

Any bank stabilization measures not directly associated with the structure requires a separate authorization under **GP 9**.

Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary discharges, such as sandbag cofferdams, access fills, etc. are necessary for construction activities or dewatering of construction sites.

Temporary fills must consist of materials and be placed in a manner, that will not be eroded by expected high flows. They must be removed in their entirety and the affected areas returned to pre-construction elevations and must be re-vegetated as appropriate.

Work to previously approved tide gates with a Corps-approved operation and maintenance plan and tide gates not affecting the hydraulic regime.

No impacts in Special Aquatic Sites (SAS) – see definitions.

No slip lining or culvert relining that changes invert elevation.

**NOTES:**

1. Removal of bridge structures in navigable waters are covered under **GP 8**, if the Coast Guard issues a bridge permit.
2. Stream, river, brook or other watercourse crossings are not eligible under **GP 2** (See **GP 19**).

**Pre-Construction Notification (PCN) Required**

Work not eligible for SV.

Removal of accumulated sediments and debris in the vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) and/or the placement of new or additional riprap, minimum necessary to protect the structure.

The removal of accumulated sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. Excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer.

Drawdown of impoundment for dam/levee repair provided it does not exceed 18 months and one growing season (April through September)

\*Grandfather dates include work performed & structures installed before 1968 & fill placed before 1975 for Corps purposes only.

**GP 3. MOORINGS (Section 10; navigable waters of the U. S.)**

New private, non-commercial, non-rental, single-boat moorings & temporary moorings including moorings to facilitate construction or dredging; minor relocation of previously authorized moorings and mooring field expansions, boundary reconfigurations or modifications of previously authorized mooring fields and maintenance and replacement of moorings.

**Not authorized under GP 3 are:** Moorings within Federal Navigation channels.

Self-Verification (SV) Eligible	Pre-Construction Notification (PCN) Required
<p>1. Private, non-commercial, non-rental, single-boat moorings and temporary moorings including moorings that facilitate construction or dredging provided:</p> <p>No new moorings located in Federal anchorages;</p> <p>No new moorings located in Special Aquatic Sites (SAS);</p> <p>No new moorings located in shellfish beds;</p> <p>Authorized by local harbormaster/town;</p> <p>When existing, authorized moorings in SAS are going to be replaced, they shall be replaced with low impact mooring technology that prevents mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems.</p> <p>2. Minor relocation of previously authorized moorings, provided:</p> <p>Authorized by the local harbormaster/town;</p> <p>Not located in SAS;</p> <p>Not located in Federal anchorages.</p>	<p>Work not eligible for SV.</p> <p>Moorings associated with an existing boating facility*.</p> <p>Private moorings without harbormaster or local approval.</p> <p>Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits of a Federal Anchorage. The buffer zone is equal to 3 times the authorized depth of that channel.</p> <p><b><i>*Boating Facility: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.</i></b></p> <p><b><i>Locating new individual moorings in SAS, including eelgrass, should be avoided to the maximum extent practicable. If SAS cannot be avoided, plans should show elastic mooring systems that prevent mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems, where practicable. For moorings that appear to impact SAS, the Corps may require an eelgrass survey.</i></b></p>

**GP 4. PILE-SUPPORTED STRUCTURES & FLOATS, INCLUDING BOAT LIFTS/HOISTS & OTHER MISCELLANEOUS STRUCTURES & WORK (Section 10; navigable waters of the U.S.)** New, expansions, reconfigurations or modifications of structures for navigation access including floats, stairs, and boat/float lifts.

**Not authorized under GP 4 are:** (a) fill or excavation; (b) no structures within Federal Navigation channels; or (c) structures associated with a NEW boating facility\*.

Self-Verification (SV) Eligible	Pre-Construction Notification (PCN) Required
<p>Private residential structures with a length limit not to exceed 40' beyond mean high water and to a depth of -4' mean low water and limited to 4' in width. The fixed pier component of the dock located in tidal wetlands shall be constructed such that the lowest horizontal member of the fixed pier is no lower than five (5) feet off the surface of any underlying wetland area.</p> <p>Floats must be supported at least 18" above the intertidal and shallow sub-tidal substrate during all tidal cycles.</p> <p>No structures located within Submerged Aquatic Vegetation</p> <p>No structures or floats can be located within the buffer zone (3x the authorized depth of the FNP) of the horizontal limits of FNPs.</p> <p>No structures or floats can extend across &gt;25% of the waterway width at mean low water.</p> <p>No new structures within 25' of riparian property line extensions.</p> <p>No new structures or floats associated with boating facilities.</p> <p>No new pile-supported structures within Shellfish Concentration Areas as designated by the Connecticut Department of Environmental Protection, Coastal Area Management Program under CGS Sec. 22a-90</p> <p>Reconfiguration of existing authorized structures; private or commercial, provided those structures do not extend beyond the existing perimeter of the facility or encroach into Special Aquatic Sites.</p>	<p>Work not eligible for SV.</p> <p>New structures within an existing boating facility, provided those structures do not extend beyond the existing perimeter of the facility.</p> <p>Structures or work in or affecting tidal or navigable waters that are not defined under any other GP activity.</p> <p>Structures that are located within 25 feet of riparian property line extensions unless the properties are owned by the same owner. If so, the Corps may require a letter of no objection from the abutter(s).</p> <p><b><i>*Boating Facility: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.</i></b></p>

**GP 5. BOAT RAMPS & MARINE RAILWAYS (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Activities required for the construction of boat ramps and marine railways, including excavation and fill.

**Not authorized under GP 5:** (a) Permanent and temporary fill >1/2 acre of non-tidal waters and/or wetlands, (b) permanent and temporary impacts >1/2 acre in tidal waters; >1000 SF in tidal SAS other than vegetated shallows, or >100 SF in tidal vegetated shallows; or (c) dredging in navigable waters of the U.S. (see GP 7)

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN) Required**

No work in tidal waters and wetlands of the United States.

≤5,000 SF of non-tidal waters and/or wetland fill (permanent and temporary).

No work April 1 through June 30 in non-tidal waters that support diadromous fish species.

Work not eligible for SV.

Work occurs in tidal waters and wetlands of the United States.

Boat ramps are located within 25 feet of riparian property line extensions unless the properties are owned by the same owner. If so, the Corps may require a letter of no objection from the abutter(s).

**GP 6. UTILITY LINE ACTIVITIES (Sections 10 & 404; tidal & non-tidal waters of the U.S.)**

Activities required for (a) The construction, maintenance, relocation, repair, & removal of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for utility lines; (b) The construction, maintenance or expansion of utility line substation facilities associated with a power/utility line in non-tidal waters; and (c) The construction and maintenance of foundations for overhead utility line towers, poles, and anchors provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible. This GP authorizes the construction of access roads to facilitate construction of the above activities provided the activity, in combination with all other activities included in one single and complete project, does not cause the permanent loss of greater than 1 acre of non-tidal waters of the U.S\*. Impacts resulting from mechanized pushing, dragging or other similar activities that redeposit excavated soil material shall be figured into the area limit determination.

**Not authorized under GP 6:** (a) Permanent and temporary fill >1 acre of non-tidal waters and/or wetlands\*, (b) permanent and temporary impacts >1/2 acre in tidal waters; >1000 SF in tidal Special Aquatic Sites other than vegetated shallows, or >100 SF in tidal vegetated shallows; or (c) blasting or storage of equipment in wetlands.

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN) Required**

No work in, over or under tidal waters.

Work not eligible for SV.

No outfalls.

Overhead utility lines constructed over Section 10 waters and submarine utility lines that are routed in or under such waters.

≤5,000 SF of non-tidal waters and/or wetland fill (permanent and temporary).

***\*See Table 1 Connecticut Water Quality Certification (CT WQC) in Section 1 for additional details on thresholds.***

Intake structures that are dry hydrants used exclusively for firefighting activities with no stream impoundments.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

No silt producing activities from April 1 through June 30 in non-tidal waters that support diadromous fish species.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.

**NOTE:** Temporary fills necessary to conduct the utility line activity are also allowed, provided the utility line activity is **within** Corps jurisdiction. Material resulting from trench excavation may be temporarily sidecasted into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. If the utility line activity is not within Corps jurisdiction but temporary fill will be placed in Corps jurisdiction, then see **GP 21** for temporary fills, etc.

**GP 7. DREDGING (Section 10; navigable waters of the U.S.), TRANSPORT & DISPOSAL OF DREDGED MATERIAL (Sections 10, 404 & 103; tidal waters of the U.S.), BEACH NOURISHMENT (Sections 10 & 404; tidal waters of the U.S.); ROCK REMOVAL (Section 10, navigable waters of the U.S.) & ROCK RELOCATION (Sections 10 & 404; tidal waters of the U.S.)**

New, improvement\* and maintenance\*\* dredging, including: (a) Disposal of dredged material at a confined aquatic disposal, beach nourishment, near shore, designated open water or ocean water disposal site, provided the Corps finds the dredged material to be suitable for such disposal; (b) Beach nourishment not associated with dredging; (c) Rock removal and relocation for navigation.

**Not authorized under GP 7 are:** (a) New dredging with >1000 SF of impacts to intertidal areas or saltmarsh or > 100 SF of impacts to vegetated shallows; (b) Maintenance dredging and/or disposal with >1/2 acre of impacts to tidal Special Aquatic Sites (SAS); (c) new dredging where the primary purpose is sand mining for beach nourishment; (d) Beach scraping; (e) Rock removal and relocation for navigation >1/2 acre; or (f) blasting.

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN) Required**

No work in non-tidal waters or wetlands.

Work not eligible for SV.

Maintenance dredging (with any amount of yardage) provided:

Maintenance dredging not eligible for SV; improvement dredging and new dredging.

Contained upland disposal;

Disposal options include upland disposal, open water disposal, confined aquatic disposal cells (CAD cells), near-shore disposal or beach nourishment.

Proper siltation controls used & maintained to prevent runback into waterway/wetland;

No impacts to SAS, intertidal areas or shellfish beds;

***\*Improvement is dredging to deeper depths in areas previously dredged or authorized.***

Not located within 100' of vegetated shallows or shellfish areas;

***\*\*Maintenance dredging includes areas and depths previously authorized by the Corps and dredged.***

No work in the Connecticut River; and

Work occurs from October 1 through January 31.

Rock/boulder relocation with ≤200 SF of impacts and no impacts to SAS.

No rock removal.

**GP 8. DISCHARGES OF DREDGED OR FILL MATERIAL INCIDENTAL TO THE CONSTRUCTION OF BRIDGES (Sections 10 & 404; navigable waters of the U.S.)**

Discharges of dredged or fill material incidental to the construction and modification of bridges across navigable waters of the U.S., including cofferdams abutments, foundation seals, piers, approach fills, and temporary construction and access fills **provided that the USCG authorizes the construction of the bridge structure under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws.** A USCG Authorization Act Exemption or a STURRA (144h) exemption do not constitute USCG authorization.

**Not authorized under GP 8 are causeways.**

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN) Required**

Discharges of dredged or fill material incidental to the construction and modification of bridges.

Work not eligible for SV.

No fill in Special Aquatic Sites.

No fill in the Connecticut River.

<b>GP 9. SHORELINE &amp; BANK STABILIZATION PROJECTS (Sections 10 &amp; 404; tidal and non-tidal waters of the U.S.)</b> Bank stabilization activities necessary for erosion protection along the banks of lakes, ponds, streams, estuarine and ocean waters, and any other open waters. Includes bulkheads, seawalls, riprap, revetments or slope protection & similar structures as well as vegetative planting, soil bioengineering or alternative techniques that are a combination of the two (e.g. living shorelines), specifically for the purpose of shoreline protection. <b><u>Not authorized under GP 9 are:</u></b> (a) Bank stabilization >500 LF* in total length including both stream banks; (b) Permanent and temporary impacts >1/2 acre in tidal waters, >1000 SF in tidal Special Aquatic Sites (SAS) other than vegetated shallows, or >100 SF in tidal vegetated shallows. (c) Stream channelization or relocation activities; or (d) breakwaters, groins and jetties.	
<b>Self-Verification (SV) Eligible</b>	<b>Pre-Construction Notification (PCN) Required</b>
<p>Coastal shoreline &amp; bank stabilization projects <math>\leq 200</math> linear feet; and other stream, river, or brook bank stabilization projects <math>\leq 200</math> linear feet (includes total for more than one stream bank) provided:</p> <p><math>\leq 1</math> cubic yard of fill per linear foot placed between the high tide line (HTL) and mean low water (MLW) or <math>\leq 1</math> cubic yard of fill per linear foot placed waterward of ordinary high water (OHW).</p> <p>No discharge of fill material within SAS, including mudflats, tidal wetlands, Submerged Aquatic Vegetation and/or shellfish beds.</p> <p>Soft stabilization measures such as bioengineered fiber roll revetments or equivalent, shall be used wherever practicable.</p> <p>No vertical stone structures or embankments angled steeper than 1V: 1H. No new bulkheads.</p> <p>No fill within the streambed.</p> <p>Unconfined work, not including installation and removal of cofferdams, is limited to June 30 through September 30 in non-tidal waters supporting diadromous fish.</p> <p>Unconfined work, not including installation and removal of cofferdams, in other non-tidal waters is limited to the low-flow period June 1 through September 30.</p> <p>Work occurring behind a cofferdam may occur at any time.</p> <p><i>*See Table 1 CT WQC in Section 1 for additional details on thresholds.</i></p>	<p>Work not eligible for SV.</p> <p>The slope of the structure is steeper than 1V:3H in lakes/ponds; and 1V:1H in non-tidal streams and tidal waters and streams.</p> <p>Fill waterward of the HTL in coastal waters including alternative stabilization techniques that are a combination of soft and hard shoreline stabilization techniques that will affect SAS, change the natural shoreline configuration or alter natural or ecological processes.</p> <p><i>*See Table 1 CT WQC in Section 1 for additional details on thresholds.</i></p>

**GP 10. AQUATIC HABITAT RESTORATION, ESTABLISHMENT & ENHANCEMENT**

**ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Activities in waters of the United States associated with the restoration, enhancement and establishment of non-tidal and tidal wetlands and riparian areas, including invasive, non-native or nuisance species control; the restoration and enhancement of non-tidal streams and other non-tidal open waters; the relocation of non-tidal waters, including non-tidal streams & associated wetlands for reestablishment of a natural stream morphology and reconnection of the floodplain; the restoration and enhancement of shellfish, finfish and wildlife; and the rehabilitation or enhancement of tidal streams, tidal wetlands and tidal open waters; provided those activities result in net increases in aquatic resource functions and services.

**Not authorized under GP 10 are:** (a) Conversions of wetlands to open water, except for the excavation of new salt pannes and (b) Artificial reefs.

**Self-Verification (SV) Eligible****Pre-Construction Notification (PCN) Required**

Special Aquatic Site planting and transplanting  
≤100 SF in tidal waters.

No new ditching to eliminate mosquito breeding habitat.

No thin layer deposition.

No fill for purposes of converting marsh to upland.

Placement of seed shellfish, spatted-shell or cultch in tidal waters for the restoration or enhancement of existing, publicly-managed, recreational shellfish beds provided there is no placement in or impacts to SAS and does not result in degradation of habitat for other aquatic resources.

≤5,000 SF of non-tidal waterway and/or non-tidal wetland fill provided the activity is supported in writing by a state or non-Corps Federal environmental resource management agency.

No stream channelization.

Work not eligible for SV

Pro-active salt marsh restoration work that includes draining of ponded dieback areas through excavation of runnels with handheld tools or low-impact ground equipment; blocking or unclogging of historic mosquito ditches to restore tidal flushing; excavation of new salt pannes to increase shorebird and waterfowl foraging habitat and placing excavated materials on the marsh surface for establishing suitable vegetative beds.

Pond or lake reestablishment or restoration.

Water impoundments.

Dam removals.

Integrated Marsh Management in tidal wetlands for combined wetland enhancement and mosquito control and reduction.

**GP 11. FISH & WILDLIFE HARVESTING ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)**

Activities in waters of the United States associated with fish and wildlife harvesting devices including pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, and clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open water fish concentrators (sea kites, etc.).

**Not authorized by GP 11 are:** (a) Artificial reefs, impoundment(s) or semi-impoundment(s) of water; (b) Permanent and temporary impacts >1/2 acre in tidal waters, >1000 SF in tidal Special Aquatic Sites (SAS) other than vegetated shallows, or >100 SF in tidal vegetated shallows; and (c) Shellfish dredging, either mechanical or hydraulic in SAS.

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN) Required**

Activities associated with fish and wildlife harvesting devices including pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging, small fish aggregating and attraction devices such as open water fish concentrators (sea kites, etc.).

No permanent impacts to SAS, including salt marshes and Submerged Aquatic Vegetation (SAV).

No structures, cages or traps located in SAS.

Work not eligible for SV

Devices located in tidal SAS, including salt marsh and SAV.

**GP 12. OIL SPILL & HAZARDOUS MATERIAL CLEANUP (Sections 10 and 404; tidal and non-tidal waters of the U.S.):** **a.** Activities conducted in response to a discharge or release of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) including containment, cleanup, and mitigation efforts, provided activities are done under either **(i)** The Spill Prevent, Control & Countermeasure Plan require by 40 CFR 112.3; **(ii)** The direction or oversight of the Federal on-site coordinator designated by 40 CFR 300; or **(iii)** Any approved existing State, regional or local contingency plan provided that the Regional Response Team concurs with the proposed response efforts or does not object to the response effort. **b.** Activities required for the cleanup of oil releases in waters of the U.S. from electrical equipment that are governed by EPA's polychlorinated biphenyl (PCB) spill response regulations at 40 CFR 761. **c.** Booms placed in tidal waters. **d.** Use of structures & fills for spill response training exercises. Special Aquatic Sites (SAS) must be restored in place to pre-impact elevations.

**Self-Verification (SV) Eligible**

1. Activities that are conducted in accordance with **a.** or **b.** above.
2. Booms placed in navigable waters for hazardous and toxic waste containment, absorption and prevention, provided they are removed upon completion of the cleanup.
3. Temporary impacts for spill response training exercises are  $\leq 5,000$  SF in non-tidal waters and  $\leq 1,000$  SF in tidal waters, and temporary structures in tidal waters with no impacts to SAS and in place for  $\leq 30$  days.

**Note:** For activities in non-tidal waters of the U.S., permittees have up to two weeks following commencement of these activities to submit the Self-verification form (Appendix E).

**Pre-Construction Notification (PCN) Required**

- Work not eligible for SV.
1. The activity is planned or scheduled, not an emergency response, and will cause turbidity or sediment resuspension in tidal waters or streams.
  2. Permanent structures or impacts for spill response training exercises.

**GP 13. CLEANUP OF HAZARDOUS & TOXIC WASTE (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Specific activities to effect the containment, stabilization or removal of hazardous or toxic waste materials, including court ordered remedial action plans or related settlements which are performed, ordered or sponsored by a government agency with established legal or regulatory authority\*. Special Aquatic Sites must be restored in place to pre-impact elevations.

**Not authorized under GP 13 are:** (a) the establishment of new disposal sites; or (b) the expansion of existing sites used for the disposal of hazardous or toxic waste.

**Self-Verification (SV) Eligible**

Permanent and temporary impacts are  $\leq 5,000$  SF in non-tidal waters and wetlands.

Booms placed in navigable waters for oil and hazardous substance containment, absorption and prevention, provided they are removed upon completion of the cleanup.

**Notes:** For activities in non-tidal waters of the U.S., permittees have up to two weeks following commencement of these activities to submit the Self-verification form (Appendix E).

**Pre-Construction Notification (PCN) Required**

Work not eligible for SV.

Permanent and temporary impacts are  $> 5,000$  SF in non-tidal waters and wetlands.

Work in navigable waters of the U.S. other than booms placed for hazardous and toxic waste containment, absorption and prevention.

*\*Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA, are not required to obtain permits under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.*

**GP 14. SCIENTIFIC MEASUREMENT DEVICES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Scientific devices for measuring and recording scientific data, such as staff gauges, tide and current gauges, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures. Also eligible are small temporary weirs and flumes constructed primarily to record water quantity and velocity provided the discharge is less than 25 cubic yards.

**Not authorized under GP 14 are:** (a) Permanent and temporary impacts >1 acre in non-tidal waters and wetlands; and (b) Permanent and temporary impacts >1/2 acre in tidal waters, >1000 SF in tidal Special Aquatic Sites (SAS) other than vegetated shallows, or >100 SF in tidal vegetated shallows.

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN) Required**

Permanent and temporary impacts are  $\leq 1,000$  SF in non-tidal waters and wetlands.

No impacts in non-tidal SAS, other than non-tidal wetlands.

No fill in tidal waters and/or wetlands.

No impacts in tidal Submerged Aquatic Vegetation.

Devices in tidal waters that do not restrict movement of aquatic organisms and will not adversely affect the course, condition or capacity of a waterway.

Work not eligible for SV.

**NOTE:** Upon completion of the use of the device to measure and record scientific data, the measuring device, and any other structures or fills associated with that device (e.g., foundations, anchors, buoys, lines, etc.), must be removed to the maximum extent practicable.

**GP 15. SURVEY ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)**

Survey activities such as soil borings, core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching\* and historic resources surveys.

**Not authorized under GP 15 are:** (a) Permanent and temporary fill >1 acre of non-tidal waters and/or wetlands, and (b) permanent and temporary impacts >1/2 acre in tidal waters; >1000 SF in tidal Special Aquatic Sites other than vegetated shallows or >100 SF in tidal vegetated shallows.

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN) Required**

Permanent and temporary impacts  $\leq$ 5,000 SF in non-tidal waters and wetlands.

No impacts, other than soil borings or core sampling, in tidal waters.

No permanent structures or drilling and discharge of excavated material from test wells for oil and gas exploration allowed.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.

*\* For the purposes of this GP, the term “exploratory trenching” means mechanical land clearing of the upper soil profile to expose bedrock or substrate, for the purpose of mapping or sampling the exposed material.*

Work not eligible for SV.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

**NOTE:** The area in which the exploratory trench is dug must be restored to its preconstruction elevation upon completion of the work and must not drain a water of the United States. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench.

**GP 16. AQUACULTURE PROJECTS & FISHERIES (Sections 10 and 404; navigable waters of the U.S.)** The installation of buoys, floats, racks, trays, nets, lines or other structures in navigable waters for the containment and cultivation of indigenous species of shellfish and seaweed/kelp. Also authorized are anchored upweller floats, small-scale shellfish hatchery seawater intake/discharge structures, and discharges of dredged or fill material associated with cultivation such as the placement of cultch or spattd-shell on bottom.

Depth of cultch or spattd-shell must comply with Special Conditions in Section 5, Part (h), items (1) through (7) of [CT DEEP, General Permit for Coastal Maintenance \(DEEP-OLISP-GP2015-02\)](#) and must not result in visible degradation of habitat for other aquatic resources. All structures must be permitted by State of Connecticut Navigation Safety/Boating Access Unit and marked in conformance with applicable State or U.S. Coast Guard Aids to Navigation. **NOTE: All facilities must be installed and operated in compliance with the attached Appendix C Aquaculture Conditions**

**Not authorized under GP 16 are impacts to Special Aquatic Sites, including Submerged Aquatic Vegetation.**

Self-Verification (SV) Eligible	Pre-Construction Notification (PCN) Required
<p>Placement of seed shellfish, spattd-shell or cultch for commercial shellfish aquaculture on leased grounds when performed in compliance with the conditions in Section 5 h. of the CT DEEP General Permit for Coastal Maintenance (DEEP-OLISP-GP-2015-02).</p> <p>The installation of temporary (&lt; six months) structures for research, educational or experimental aquaculture gear impacting <math>\leq 1,000</math> SF for indigenous species under the direct supervision of the Dept. of Agricultural, Bureau of Aquaculture provided there is no adverse effect to navigation.</p> <p>Suspended cages or bags located wholly below and within the footprint of an existing <u>authorized</u> fixed or floating structure in water depths <math>\leq 10</math> feet MLW; provided no loose lines and there is a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at mean low water.</p> <p>Shellfish upweller floats not to exceed 160 sf (anchored/berthed only, no piling installation), with a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at mean low water, cannot be located within the buffer of a Federal Navigation Project.</p>	<p>Work not eligible for SV.</p> <p>Vertical-drop longlines and suspended gear for the culture of shellfish or other marine organisms, such as kelp and seaweed.</p> <p>Cages, trays, racks, netting or other structures on the ocean bottom or floating on the water surface used to contain, cultivate or depurate shellfish.</p> <p>For additional information, please see “A Guide for Marine Aquaculture Permitting in Connecticut” for guidance and application materials found at:  <a href="http://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/CT/AquaculturePermitGuide.pdf">http://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/CT/AquaculturePermitGuide.pdf</a></p> <p>Intake and discharge structure with a diameter <math>\leq 3</math> inches, for the withdrawal and discharge of water to support small-scale shellfish land-based hatchery with negative impact on source or discharge waters.</p> <p>Activities that involve a change from authorized gear for bottom culture to floating or suspended gear.</p> <p>Boundaries of Submerged Aquatic Vegetation may be required to be located/surveyed in the field. See Corps website for guidance:  <a href="http://www.nae.usace.army.mil/Portals/74/docs/regulatory/JurisdictionalLimits/SubmergedAquaticVegetationSurveyGuidance(Updated7-12-2016).pdf">http://www.nae.usace.army.mil/Portals/74/docs/regulatory/JurisdictionalLimits/SubmergedAquaticVegetationSurveyGuidance(Updated7-12-2016).pdf</a></p>

**GP 17. NEW/EXPANDED DEVELOPMENTS & RECREATIONAL FACILITIES (Section 404; non-tidal waters of the U.S.)** Discharges of dredged or fill material for the construction or expansion of developments and/or recreational facilities. This GP authorizes attendant features that are necessary for the use such as parking lots, garages, and yards. Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation.

**Not authorized under GP 17 are:** (a) Permanent impacts that are >1 acre\* in non-tidal waters and wetlands; (b) Stormwater treatment or detention systems, or subsurface sewerage disposal systems in waters of the U.S.; and (c) New roadway and driveway crossings in non-tidal waters and/or wetlands. (See **GPs 18 & 19**)

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN) Required**

Permanent and temporary impacts  $\leq 5,000$  SF of non-tidal waters and/or wetlands provided no impacts to Special Aquatic Sites other than wetlands (e.g. riffle and pool stream habitat, shellfish beds).

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.

Work not eligible for SV.

*\*See Table 1 CT WQC in Section 1 for additional details on thresholds.*

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

**GP 18. LINEAR TRANSPORTATION PROJECTS – WETLAND CROSSINGS ONLY**

**(Section 404; non-tidal waters of the U.S.)** Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features.

**Not authorized under GP 18 are:** (a) Permanent and temporary impacts for any single and complete project that are >1 acre\* or (b) Stream, river, or brook crossing projects (see **GP 19**)

**Self-Verification (SV) Eligible**

**Pre-Construction Notification (PCN)  
Required**

Permanent and temporary impacts ≤5,000 SF of non-tidal wetland fill provided:

No work in non-tidal Special Aquatic Sites other than wetlands.

No slip lining or culvert relining that changes invert elevation.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.

Work not eligible for SV.

***\*See Table 1 CT WQC in Section 1 for additional details on thresholds.***

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

**GP 19. STREAM, RIVER & BROOK CROSSINGS (NOT INCLUDING WETLAND**

**CROSSINGS) (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features, provided that work is performed in accordance with Connecticut General Permit Stream Crossing Best Management Practices to the extent practicable - See Appendix G.

**Not authorized under GP 19 are:** (a) Permanent impacts for any single and complete projects that are >1 acre in non-tidal waters and wetlands\*, >1/2 acre in tidal waters of the U.S., >1000 SF in tidal Special Aquatic Sites (SAS) other than vegetated shallows or >100 SF in tidal vegetated shallows; (b) Temporary impacts >1 acre in tidal waters, >5000 SF in tidal SAS other than vegetated shallows, or >1000 SF in vegetated shallows; or (c) Wetland Crossings (see **GP 18**).

**Self-Verification (SV) Eligible**

No impacts to tidal waters and/or wetlands.

Permanent and temporary impacts  $\leq 5,000$  SF of non-tidal waters and wetlands provided for stream, river, brook crossings by means of a Bridge or Open-Bottom Structure that meets the following standards: 1. Spans at least 1.2 times the watercourse bank full width, 2. Allows for the continuous, uninterrupted flow of the 50-year frequency storm flows, and 3. No riprap is placed within or across the bed of the brook, and appurtenant stream bank stabilization does not exceed 50 feet along any upstream or downstream bank.

Permanent and temporary impacts  $\leq 5,000$  SF of non-tidal waters and wetlands provided for stream, river, brook crossings by means of a culvert provided the tributary watershed to the culvert does not exceed 1 sq. mile (640 acres)\*

No open trench excavation in flowing waters.

Unconfined, in-stream work, not including installation and removal of cofferdams, is limited to the low-flow period, June 1 through September 30 unless CT DEEP requires different resource-driven time of year restriction.

Work occurring behind a cofferdam may occur at any time.

No stream relocations; no dams or dikes; no new culvert crossings of perennial streams. No slip lining or culvert relining that changes invert elevation.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.

*\*See Table 1 CT WQC in Section 1 for additional details on thresholds.*

**Pre-Construction Notification (PCN) Required**

Work not eligible for SV.

*\*See Table 1 CT WQC in Section 1 for additional details on thresholds.*

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

**GP 20. ENERGY GENERATION & RENEWABLE ENERGY GENERATION FACILITIES****(Sections 10 and 404; tidal waters of the U.S.) & HYDROPOWER PROJECTS (Sections 10 and 404; tidal waters of the U.S.)**

Structures and work in navigable waters of the U.S. and discharges of dredged or fill material into tidal waters of the U.S. for the construction, expansion, modification or removal of: **(a)** Land-based renewable energy production facilities, including attendant features; **(b)** Water-based wind or hydrokinetic renewable energy generation pilot projects and their attendant features; and **(c)** Discharges of dredged or fill material associated with hydropower projects.

Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, and parking lots. For each single and complete project in **(b)** above, no more than 10 generation units (e.g., wind turbines or hydrokinetic devices) are authorized in navigable waters of the U.S.

**Self-Verification (SV) Eligible****Pre-Construction Notification (PCN) Required**

Not allowed under SV.

**For land-based facilities, impacts are:**

Permanent impacts  $\leq 1/2$  acre in tidal waters; or  $\leq 100$  SF in tidal vegetated shallows or  $\leq 1,000$  SF in other tidal Special Aquatic Sites (SAS).

Temporary impacts  $\leq 1$  acre in tidal waters;  $\leq 1,000$  SF in vegetated shallows and  $\leq 5,000$  SF in other tidal SAS.

**For water-based wind or hydrokinetic renewable energy generation pilot projects, and hydropower projects permanent and temporary impacts are:**

$\leq 1/2$  acre in tidal waters.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

**GP 21. TEMPORARY FILL NOT ASSOCIATED WITH ANY OTHER GP ACTIVITIES**

**(Section 404; non-tidal waters of the U.S.)** Temporary discharges, such as sandbag/earth cofferdams, access fills, etc., necessary for construction activities or dewatering of construction sites.

**Not authorized under GP 21:** Temporary impacts >1 acre in non-tidal waters and wetlands\*

Self-Verification (SV) Eligible	Pre-Construction Notification (PCN) Required
<p data-bbox="203 457 732 512">Temporary impacts ≤5,000 SF of temporary non-tidal waters and/or non-tidal wetland.</p> <p data-bbox="203 609 768 726"><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.</p>	<p data-bbox="797 457 1073 485">Work not eligible for SV.</p> <p data-bbox="797 516 1422 573"><i>*See Table 1 CT WQC in Section 1 for additional details on thresholds.</i></p> <p data-bbox="797 609 1440 697"><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.</p>



## APPENDIX B - GENERAL CONDITIONS

**1. Other Permits.** Permittees must obtain other Federal, State, or local authorizations required by law. Applicants are responsible for applying for and obtaining all required State or local approvals. Work that is not regulated by the State, but is subject to Corps jurisdiction, may be eligible for these General Permits (GPs).

### **2. Federal Jurisdiction.**

a. Applicability of the GPs shall be evaluated with reference to Federal jurisdictional limits. Applicants are responsible for ensuring that the limits depicted satisfy the Federal criteria defined at 33 CFR 328 “Waters of the United States.” and 33 CFR 329 “Navigable Waters of the United States”

**NOTE:** Waters of the U.S. include the subcategories “navigable waters of the United States.” and “wetlands.”

b. Pre-Construction Notification (PCN) Eligible projects require an application to the Corps which must include a delineation of wetlands, other special aquatic sites, and other waters such as lakes and ponds and perennial, intermittent, and ephemeral streams that are on the project site. Wetland delineations must be prepared in accordance with the current federal method required by the Corps. For Corps Wetland Delineation Manual, regional supplements and data sheets, and the National List of Plant Species that Occur in Wetlands, visit our website at <http://www.nae.usace.army.mil/Missions/Regulatory.aspx> and then click on “Jurisdiction and Wetlands”. The Natural Resources Conservation Service (NRCS) publishes the current hydric soil definition, criteria and lists which can be found at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>. For the Field Indicators for Identifying Hydric Soils in New England, visit: [www.neiwpcc.org/hydricsoils.asp](http://www.neiwpcc.org/hydricsoils.asp).

### **3. Mitigation (Avoidance, Minimization, and Compensatory Mitigation)**

a. Activities must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States (U.S.) to the maximum extent practicable at the project site (i.e., on site). Consideration of mitigation (avoiding, minimizing, rectifying, reducing, or compensating) is required to the extent necessary to ensure that the adverse effects to the aquatic environment are no more than minimal.

b. Applicants should consider riparian/forested buffers for stormwater management and low impact development (LID) best management practices (BMPs) to reduce impervious cover and manage stormwater to minimize impacts to the maximum extent practicable.

c. Compensatory mitigation<sup>1</sup> for effects to waters of the U.S., including direct, secondary and temporal<sup>2</sup>, will generally be required for projects with permanent impacts that exceed the SV area limits, and may be required for temporary impacts that exceed the SV area limits, to offset unavoidable impacts which remain after all appropriate and practicable avoidance and minimization has been achieved and to ensure that the adverse effects to the aquatic environment are no more than minimal. Proactive restoration projects or temporary impact work with no secondary effects may generally be excluded from this requirement.

The Corps **Connecticut In-Lieu Fee Program** allows Corps permittees, as compensation for their project impacts to aquatic resources of the United States in Connecticut pursuant to Section 404 of the Clean Water Act, to make monetary payment *in-lieu* of permittee-responsible mitigation. Information is provided at <http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx> >>Mitigation>>Connecticut In-Lieu Fee Program. Please note that this only applies to Corps required mitigation and additional Connecticut DEEP mitigation may be required.

**4. Discretionary Authority.** Notwithstanding compliance with the terms and conditions of this permit, the Corps retains discretionary authority to require an Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest [33 CFR 320.4(a)]. This authority is invoked on a case-by-case basis whenever the Corps determines that the potential consequences of the proposal warrant Individual Permit review based on the concerns stated above. This authority may be invoked for projects with

---

<sup>1</sup> Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR 332. See also the New England District Compensatory Mitigation Guidance at <http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx>

<sup>2</sup> Temporal loss: The time lag between the losses of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site(s) (33 CFR 332.2).

cumulative adverse environmental effects that are more than minimal, or if there is a special resource or concern associated with a particular project. Whenever the Corps notifies an applicant that an Individual Permit may be required, authorization under these GPs is voided and no work may be conducted until a Corps Individual Permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may be reviewed under these GPs.

**5. Single and Complete Projects.** The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. The GPs shall not be used for piecemeal work and shall be applied to single and complete projects.

a. For non-linear projects, a single and complete project must have independent utility. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed, even if the other phases were not built, can be considered as separate single and complete projects with independent utility.

b. Unless the Corps determines the activity has independent utility, all components of a single project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be treated together as constituting one single and complete project.

c. For linear projects such as power lines or pipelines with multiple crossings, a “single and complete project” is all crossings of a single water of the U.S. (i.e. single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately. If any crossing requires a PCN review or an individual permit review, then the entire linear project shall be reviewed as one project under PCN or the individual permit procedures.

**6. Corps Property and Federal Projects.**

a. In addition to any authorization under these GPs, proponents must contact the Corps Real Estate Division at (978) 318-8585 for work occurring on or potentially affecting Corps properties and/or Corps-controlled easements to initiate reviews and determine what real estate instruments are necessary to perform work. Permittees may not commence work on Corps properties and/or Corps-controlled easements until they have received any required Corps real estate documents evidencing site-specific permission to work.

b. Any proposed temporary or permanent modification or use of a Federal project (including but not limited to a levee, dike, floodwall, channel, anchorage, seawall, bulkhead, jetty, wharf, pier or other work built but not necessarily owned by the United States), or any use which would obstruct or impair the usefulness of the Federal project in any manner, and/or would involve changes to the authorized Federal project’s scope, purpose, and/or functioning, is not eligible for SV and will also require review and approval by the Corps pursuant to 33 USC 408. Where Section 408 is applicable, a decision on a Department of the Army general permit application will not be rendered prior to the decision on a Section 408 request.

**7. National Lands.** Activities that impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary or any area administered by the National Park Service, U. S. Fish and Wildlife Service (USFWS) or U.S. Forest Service are not eligible for SV.

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

As of July 15, 2016, affected rivers in Connecticut include: the West Branch of the Farmington River from Colebrook to Canton (designated river); the Eightmile River and tributaries in Salem, Lyme and East Haddam (designated river); and the Lower Farmington River from Canton to Windsor (study river – including its tributary Salmon Brook). Additional information can be found at: <http://www.rivers.gov/connecticut.php>

## **9. Historic Properties.**

a. No undertaking shall cause effects (defined at 33 CFR 325 Appendix C and 36 CFR 800) on properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places<sup>3</sup>, including previously unknown historic properties within the permit area, unless the Corps or another Federal action agency has satisfied the consultation requirements of Section 106 of the National Historic Preservation Act (NHPA). The State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO) and the National Register of Historic Places can assist with locating information on: i) previously identified historic properties; and ii) areas with potential for the presence of historic resources, which may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with the Corps and the SHPO and/or THPO(s).

b. For activities eligible for SV (inland projects), proponents must ensure and document that the activity will not cause effects as stated in 9(a).

c. Proponents must submit a PCN to the Corps as soon as possible if the authorized activity may cause effects as stated in 9(a) to ensure that the Corps is aware of any potential effects of the permitted activity on any historic property that the consultation requirements of Section 106 of NHPA are satisfied.

d. All PCN (inland projects): i) show notification to the SHPO and applicable THPO(s)<sup>4</sup> for their identification of historic properties, ii) state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties, and iii) include any available documentation from the SHPO or THPO(s) indicating that there are or are not historic properties affected. Starting consultation early in project planning can save proponents time and money.

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

## **10. Federal Threatened and Endangered Species.**

a. No activity is authorized which: a) is likely to directly or indirectly jeopardize the continued existence of any listed or proposed species or result in the destruction or adverse modification of designated or proposed critical habitat, as identified under the Federal Endangered Species Act (ESA); b) result in take of a listed species or adversely modifies designated critical habitat; or c) violates the ESA.

b. For listed species or critical habitat under U. S. Fish and Wildlife Service (USFWS) jurisdiction, a PCN is required when a proposed project may affect a listed species or designated critical habitat. To ensure compliance with the Endangered Species Act, project proponents must request an 'Official Species List' from the USFWS IPaC website <http://ecos.fws.gov/ipac> <http://ecos.fws.gov/ipac>>. This USFWS IPaC website will record the request and immediately email the list to you. Include the list with all applications. An activity is SV eligible if the Official Species List states the northern long-eared bat (NLEB) (*Myotis septentrionalis*) is present BUT the activity: i) will not remove trees  $\geq 3$  inches dbh; ii) is not within the "buffer" of a NLEB hibernacula or maternity roost tree; and iii) does not involve work on an existing dam, riprap or bridges.

---

<sup>3</sup> The majority of historic properties are not listed on the National Register of Historic Places and may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with the Corps and the SHPO and/or THPO(s).

<sup>4</sup> Appendix D, #3 Historic Resources, provides contact information and each tribe's "area of concern."

c. For listed species or habitat under NMFS jurisdiction, the Corps will coordinate with NMFS as appropriate for all work eligible for SV that may have an effect on listed species or habitat; therefore SV eligible project proponents are not required to check for listed species or habitat for their projects.

d. Federal applicants should follow their own procedures for complying with the requirements of the ESA. Work may be eligible for SV if another Federal agency has satisfied the requirements of Section 7 of the ESA. Upon request, permittees must provide the Corps with the appropriate documentation to demonstrate compliance with those requirements.

## **11. Pile Removal and Related Time of Year Restrictions**

a. Derelict, degraded or abandoned piles and sheet piles in navigable waters, except for those inside of existing work footprints for piers, must be completely removed or cut and/or driven to 3 feet below the substrate to prevent interference with navigation and in some cases to remove polluting materials. Existing creosote piles in the project area that are affected by project activities should be completely removed. In areas of fine-grained substrates, piles must be removed by the direct, vibratory or clamshell pull method<sup>5</sup> to minimize turbidity and sedimentation impacts. Removed piles shall be disposed of in an upland location landward of MHW or OHW and not in wetlands, tidal wetlands, their substrate or mudflats.

b. Piles should either be installed between November 1 and March 15 **OR** must use a soft start each day of pile driving, building up power slowly from a low energy start-up over a period of 20-40 minutes to provide adequate time for fish and marine mammals to leave the vicinity. The buildup of power should occur in uniform stages to provide a constant increase in output. Bubble curtains can be used to reduce sound pressure levels during vibratory or impact hammer pile driving.

## **12. Navigation.**

a. No activity may cause more than a minimal adverse effect on navigation.

b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S.

c. Any structure or work that extends closer to the horizontal limits of any Corps Federal Navigation Project than a distance of three times the project's authorized depth shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys. This is applicable to SV and PCN.

d. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.

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

f. An application to the Corps is required for all work in, over or under an FNP or its buffer zone unless otherwise indicated in Appendix A.

---

<sup>5</sup> **Direct Pull:** Each piling is wrapped with a choker cable or chain that is attached at the top to a crane. The crane then pulls the piling directly upward, removing the piling from the sediment. **Vibratory Pull:** The vibratory hammer is a large mechanical device (5-16 tons) that is suspended from a crane by a cable. The vibrating hammer loosens the piling while the crane pulls up. **Clamshell Pull:** This can remove intact, broken or damaged pilings. The clamshell bucket is a hinged steel apparatus that operates like a set of steel jaws. The bucket is lowered from a crane and the jaws grasp the piling stub as the crane pulls up. The size of the clamshell bucket is minimized to reduce turbidity during piling removal.

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

**14. Heavy Equipment in Wetlands.** Operating heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and such equipment shall not be stored, maintained or repaired in wetlands, to the maximum extent practicable. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (typically <3 psi), or it shall be placed on swamp/construction/timber mats (herein referred to as “construction mats”) that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Construction mats are to be placed in the wetland from the upland or from equipment positioned on swamp mats if working within a wetland. Dragging construction mats into position is prohibited. Other support structures that are capable of safely supporting equipment may be used with written Corps authorization. Similarly, the permittee may request written authorization from the Corps to waive use of mats during frozen or dry conditions. An adequate supply of spill containment equipment shall be maintained on site. Construction mats should be managed in accordance with the following construction mat best management practices:

- Mats should be in good condition to ensure proper installation, use and removal.
- Where feasible, mats should be carried and not dragged unless they are being used as a grading implement.
- Where feasible, place mats in a location that would minimize the amount needed for the wetlands crossing.
- Minimize impacts to wetland areas during installation, use, and removal.
- Install adequate erosion & sediment controls at approaches to mats to promote a smooth transition to, and minimize sediment tracking onto, swamp mats.
- In most cases, construction mats should be placed along the travel area so that the individual boards are resting perpendicular to the direction of traffic. No gaps should exist between mats. Place mats far enough on either side of the resource area to rest on firm ground.
- Provide standard construction mat BMP details to work crews.

**15. Temporary Fill.**

a. Temporary fill, construction mats and corduroy roads shall be **entirely** removed as soon as they are no longer needed to construct the authorized work. Temporary fill shall be placed in its original location or disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.

b. All temporary fill and disturbed soils shall be stabilized to prevent its eroding into waters of the U.S. where it is not authorized. Work shall include phased or staged development to ensure only areas under active development are exposed and to allow for stabilization practices as soon as practicable. Temporary fill must be placed in a manner that will prevent it from being eroded by expected high flows.

c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. washed stone, stone, etc.).

d. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Materials shall be placed in a location and manner that does not adversely impact surface or subsurface water flow into or out of the wetland. Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric or other appropriate material laid on the pre-construction wetland grade where practicable to minimize impacts and to facilitate restoration to the original grade. Construction mats are excluded from this requirement.

e. Construction debris and/or deteriorated materials shall not be located in waters of the U.S.

## **16. Restoration of Inland Wetland Areas.**

a. Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be stabilized with a wetland seed mix containing only plant species native to New England and shall not contain any species listed in the “Invasive and Other Unacceptable Plant Species” Appendix D in the “New England District Compensatory Mitigation Guidance” found at <http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Mitigation/CompensatoryMitigationGuidance.pdf>

b. The introduction or spread of invasive plant species in disturbed areas shall be controlled. If swamp or timber mats are to be used, they shall be thoroughly cleaned before re-use.

c. In areas of authorized temporary disturbance, if trees are cut they shall be cut at or above ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

d. Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

**17. Coastal Bank Stabilization.** Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. For example, vertical bulkheads should only be used in situations where reflected wave energy can be tolerated. This generally eliminates bodies of water where the reflected wave energy may interfere with or impact on harbors, marinas, or other developed shore areas. A revetment is sloped and is typically employed to absorb the direct impact of waves more effectively than a vertical seawall. It typically has a less adverse effect on the beach in front of it, abutting properties and wildlife. For more information on this topic, go to the Corps Coastal Engineering Manual (supersedes the Shore Protection Manual), located at <http://chl.erdc.usace.army.mil>. Select “Products/Services,” “Publications.” Part 5, Chapter 7-8, a (2) c.

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

## **19. Aquatic Life Movements & Management of Water Flows.**

a. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity’s primary purpose is to impound water. Unless otherwise stated, activities impounding water in a stream require a PCN to ensure impacts to aquatic life species are avoided and minimized. All permanent and temporary crossings of waterbodies (e.g., streams, wetlands) shall be:

i. Suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species; and

ii. Properly aligned and constructed to prevent bank erosion or streambed scour both adjacent to and inside the culvert. Permanent and temporary crossings of wetlands shall be suitably culverted, spanned or bridged in such a manner as to preserve hydraulic and ecological connectivity between the wetlands on either side of the road.

b. To avoid adverse impacts on aquatic organisms, the low flow channel/thalweg shall remain unobstructed during periods of low flow, except when it is necessary to perform the authorized work.

c. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or

manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

**20. Discharge of Pollutants.** All activities involving any discharge of pollutants into waters of the U.S. authorized under these GPs shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. 1251), and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this permit, the authorized work shall be modified to conform with these standards within 6 months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the District Engineer in consultation with the Regional Administrator of the EPA. Applicants may presume that state water quality standards are met with issuance of the Section 401 WQC (Applicable only to the Section 404 activity).

**21. Spawning, Breeding, and Migratory Areas**

a. Jurisdictional activities and impacts such as excavations, discharges of dredged or fill material, and/or suspended sediment producing activities in jurisdictional waters that provide value as fish migratory areas, fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided and minimized to the maximum extent practicable.

b. Jurisdictional activities in waters of the U.S. that provide value as breeding areas for migratory birds must be avoided to the maximum extent practicable. The permittee is responsible for obtaining any “take” permits required under the USFWS’s regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the USFWS to determine if such “take” permits are required for a particular activity.

**22. Storage of Seasonal Structures.** Coastal structures, such as pier sections and floats, that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location, located above mean high water (MHW) and **not** in tidal wetlands. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is seaward of MHW. This is intended to prevent structures from being stored on the marsh substrate and the substrate seaward of MHW.

**23. Environmental Functions and Values.** The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner that minimizes any adverse impacts on existing fish, wildlife, and the environmental functions to the extent practicable. The permittee will discourage the establishment or spread of plant species identified as non-native invasive species by any federal or state agency.

**24. Vernal Pools.**

a. Only vernal pools that meet the current definition of waters of the U.S. are regulated by the Corps.

b. Direct and indirect adverse effects to all vernal pools (VPs), including their envelopes and critical terrestrial habitats (VP Management Areas), shall be avoided and minimized to the maximum extent practicable. Site clearing, grading, and construction activities associated with a regulated activity in the VP Management Area may cause these adverse effects to the VP.

c. When any regulated activities occur within 750 feet of a vernal pool, the following management practices must be followed for all work within any VP Management Area (750’ of a VP’s edge) *in order to qualify for SV*:

i. No disturbance within the VP Depression or VP Envelope (area within 100 feet of the VP Depression’s edge)– does not apply to temporary impact associated with construction mats in previously disturbed areas of existing utility projects or linear transportation projects provided there is a Vegetation Management Plan that avoids, minimizes and mitigates impacts to aquatic resources.

ii. Maintain a minimum of 75% of the Critical Terrestrial Habitat (area within 100-750 feet of the VP Depression’s edge) as unfragmented forest with at least a partly-closed canopy of overstory trees to provide shade, deep litter and woody debris;

iii. Maintain or restore forest corridors connecting wetlands and significant vernal pools;

iv. Minimize forest floor disturbance;

- v. Maintain native understory vegetation and downed woody debris; and
- vi. Cape Cod style-curbing or no curbing options shall be used on new roads to facilitate amphibian passage.

d. A PCN is required for any regulated activity within 750' of a vernal pool when all work within the VP Management Area does not comply with the SV requirements in (c) above. Information on directional buffers in accordance with the VP Directional Buffer Guidance document may be provided in order to demonstrate minimal impact and avoid compensation requirements. Conservation of the un-impacted area within the VP Management Area will often be required.

## **25. Invasive Species.**

a. The introduction, spread, or the increased risk of invasion of invasive plant or animal species on the project site, into new or disturbed areas, or areas adjacent to the project site caused by the site work shall be avoided. Hence, swamp and timber mats shall be thoroughly cleaned before reuse.

b. Unless otherwise directed by the Corps, all applications for PCN inland projects proposing fill in Corps jurisdiction shall include an Invasive Species Control Plan. Additional information can be found at [www.hort.uconn.edu/cipwg/](http://www.hort.uconn.edu/cipwg/)

**26. Permit/Authorization Letter On-Site.** For PCN projects, the permittee shall ensure that a copy of these GPs and the accompanying authorization letter are at the work site (and the project office) whenever work is being performed, and that all personnel with operational control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of Corps jurisdiction at the site of the work authorized by these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means these GPs, including General Conditions and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire authorization letter, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

**27. Inspections.** The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is being or has been performed in accordance with the terms and conditions of this permit. The Corps may also require post-construction engineering drawings for completed work or post-dredging survey drawings for any dredging work.

**28. Maintenance.** The permittee shall maintain the activity authorized by these GPs in good condition and in conformance with the terms and conditions of this permit. This does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds in Appendix A – General Permit #7 as well as any conditions included in a written Corps authorization. Maintenance dredging includes only those areas and depths previously authorized and dredged. Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a) (2).

**29. Property Rights.** These GPs do not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations.

**30. Transfer of GP Verifications.** When the work authorized by these GPs are still in existence at the time the property is transferred, the terms and conditions, including any special conditions, will continue to be binding on the entity or individual who received the authorization, as well as the new owner(s) of the property. If the permittee sells the property associated with a General Permit authorization, the permittee may transfer the General Permit authorization to the new owner by submitting a letter to the Corps to validate the transfer. A

copy of the General Permit authorization letter must be attached to the letter, and the letter must include the following statement: "The terms and conditions of these General Permits, including any special conditions, will continue to be binding on the new owner(s) of the property". This letter should be signed by both the seller and new property owner(s).

**31. Modification, Suspension, and Revocation.** This permit and any individual authorizations issued thereof may either be modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7; and any such action shall not be the basis for any claim for damages against the United States.

**32. Special Conditions.** The Corps may impose other special conditions on a project authorized pursuant to this general permit that are determined necessary to minimize adverse environmental effects or based on any other factor of the public interest. These may be based on concerns from CT DEEP or a Federal resource agency. Failure to comply with all conditions of the authorization, including special conditions, will constitute a permit violation and may subject the permittee to criminal, civil, or administrative penalties and/or restoration.

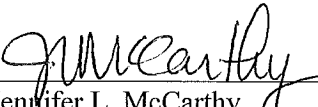
**33. False or Incomplete Information.** If the Corps makes a determination regarding the eligibility of a project under this permit, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the authorization will not be valid, and the U.S. government may institute appropriate legal proceedings.

**34. Abandonment.** If the permittee decides to abandon the activity authorized under this General Permit, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.

**35. Enforcement cases.** These GPs do not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps determines that the activity may proceed independently without compromising the enforcement action.

**36. Duration of Authorization.** These GPs expire five years from the date issued as listed at the top of the cover sheet. Activities authorized by these GPs that have either commenced (i.e., are under construction) or are under contract to commence in reliance upon this authorization will have an additional year from the expiration date to complete the work. The permittee must be able to document to the Corps' satisfaction that the project was under construction or under contract by the expiration date of these GPs. If work is not completed within the one year extended timeframe, the permittee must contact the Corps. The Corps may issue a new authorization provided the project meets the terms and conditions of the CT GPs in effect at the time.

Activities authorized under these GPs will remain authorized until the GP expires, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2(e)(2). Activities completed under the SV or PCN authorizations of these GPs will continue to be authorized after its expiration date.

  
Jennifer L. McCarthy  
Chief, Regulatory Division

19 Aug 16  
Date



## APPENDIX C

### GENERAL PERMIT 16 - STANDARD AQUACULTURE TERMS AND CONDITIONS

#### DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT

#### 2016 Connecticut General Permit

---

1. Aquaculture activities under this General Permit as identified within Appendix 2, Section F are subject to the current General Permit Conditions and Requirements of the Connecticut General Permit.
2. All gear, including buoys shall be marked and maintained in a manner that will make it identifiable to the specific aquaculture project/lease.
3. Before the authorized structures are installed the project proponent **must** contact the CT DEEP Boating Division, Navigation Safety/Boating Access Unit, P.O. Box 280, 333 Ferry Road, Old Lyme, CT 06371-0280 to either obtain a waiver as to the need to install gear-area boundary marker buoys or submit a permit application and receive authorization for Regulatory Markers ([Link to Regulatory Marker Permit](#)). If CT DEEP Boating regulation does not apply, the applicant shall contact the U.S. Coast Guard (USCG), First District; Aids to Navigation Branch at 408 Atlantic Avenue, Boston, MA 02110-3350 (800-848-3942) to coordinate the proper buoy markers. The permittee shall install and maintain lights, markings and other features as the CT DEEP/USCG requires. Note: Documentation of this coordination will be necessary for existing operations that seek reconfigurations and/or new approvals for structures from the Dept. of Army and for authorizations from the CT DA/BA.
4. Gear may not be located over or within beds of submerged aquatic vegetation (SAV) such as eelgrass or turtle grass, and coastal wetlands (salt marsh), nor shall such beds or vegetated marsh areas be damaged or removed. Routine lease activity including cage maintenance, washing etc. shall not occur within 25 feet of the edge of beds of SAV.
5. All gear shall be designed and deployed in such a manner as to limit, to the greatest extent practicable, negative impacts on avian resources such as, but not limited to, shore birds, wading birds or members of the waterfowl group. This is meant to include nesting, feeding or resting activities by migratory birds identified at 50 CFR 10.13.
6. Installation of structures, their mooring tackle and lines and any attendant vessels shall not create a hazard or interfere with existing navigation uses in the waterway, and structures shall be set back from the Federal Navigation Project (FNP) a distance of at least 200 feet. A list of Connecticut FNP projects can be obtained from the U.S Army Corps of Engineers website <http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/>

## **APPENDIX C**

### **GENERAL PERMIT 16 - STANDARD AQUACULTURE TERMS AND CONDITIONS**

#### **DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT**

#### **2016 Connecticut General Permit**

---

7. The right of the public to traverse or utilize the waters not physically occupied by authorized structures and/or moored vessels within the areal limits of the authorized gear perimeter shall not be impeded.
8. The placement of cultch shall comply with all of the Special Conditions in Section 5, part (h), items (1) through (7) of the Connecticut DEEP, General Permit for Coastal Maintenance (DEEP-OLISP-GP2015-02) as listed below:
  - Such placement of cultch shall only be conducted by a licensed shellfish operator in beds or areas designated for shellfishing under section 26-194 or section 26-242 of the General Statutes.
  - Such placement of cultch shall be conducted only in appropriate locations for colonization by oysters, based upon factors of salinity, water quality, water circulation patterns and substrate composition.
  - Such placement of cultch shall not be conducted in areas of tidal wetlands or submerged aquatic vegetation beds.
  - (Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains all required authorizations from the Department of Agriculture Bureau of Aquaculture and Laboratory and the local shellfish commission, as applicable.
  - Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains permission in writing from the owner or lessee of such shellfish bed or area.
  - Such placement of cultch shall be conducted in such a manner that it does not exceed a layer of cultch on the seafloor greater than 12" in depth.
  - Such placement of cultch shall be conducted such that the placement does not exceed 1,500 bushels per acre of seafloor.

## APPENDIX C

### GENERAL PERMIT 16 - STANDARD AQUACULTURE TERMS AND CONDITIONS

#### DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT

#### 2016 Connecticut General Permit

---

9. The permittee shall be responsible to remove all gear and associated equipment within any leased or designated shellfish area in the event that the operator surrenders or loses the right to its use. <sup>1</sup>
10. The subject aquaculture activity shall not discernibly interfere with natural sedimentation and erosion processes.
11. Suspended cages or nets for the rearing or grow out of shellfish are permitted as Self Verification, provided they are located wholly below and within the footprint of an existing, authorized fixed or floating structure and provided there is a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at MLW. The structures that the gear will be adhered to must be in conformance with the structures permit for that "site."
12. Aquaculture projects authorized herein shall not interfere with public shore access at or below mean high water or interfere with the access to any riparian or littoral property.
13. The following conditions may be required as Special Conditions of an authorization to protect Federally-listed, protected sea turtles:
  - a. All gear, including buoys shall be marked and maintained in a manner that will make it identifiable to the specific aquaculture project/lease.
  - b. The length of the buoy line shall not exceed 23.1 feet (10% of the maximum water depth at MHHW at the lease site)
  - c. The gear sites shall be visited by an attendant surface vessel at least once a week, site conditions permitting.

---

<sup>1</sup> In some situations, a performance bond may be required.

## **APPENDIX C**

### **GENERAL PERMIT 16 - STANDARD AQUACULTURE TERMS AND CONDITIONS**

#### **DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT**

#### **2016 Connecticut General Permit**

---

- d. If any listed species of sea turtle is observed to be entangled or otherwise interacting with the facility structure, the permittee (or onboard staff) shall immediately contact the Mystic Aquarium & Institute for Exploration, Marine Mammal and Sea Turtle Stranding Program Hotline at 860-572-5955 x107 and notify the NOAA Fisheries 24-hour Hotline at (866) 755-6622. The permittee should also contact the NOAA Fisheries Protected Resources Division, Sea Turtle Stranding & Disentanglement Coordinator at (978) 282-8470 or [NERStranding.staff@noaa.gov](mailto:NERStranding.staff@noaa.gov).
- e. The permittee shall keep the enclosed Sea Turtle Handling and Resuscitation Requirements in a visible location on the attendant vessels at all times. If a sea turtle is entangled in the authorized aquaculture gear and comatose or inactive (but not dead), resuscitation should be attempted by following these procedures.

## APPENDIX D

### CONTACTS FOR CONNECTICUT GENERAL PERMIT:

#### **1. FEDERAL**

##### ***U.S. Army Corps of Engineers***

New England District, Regulatory Division  
696 Virginia Road  
Concord, Massachusetts 01742-2751  
(800) 343-4789 or (978) 318-8335  
(978) 318-8303 - fax

##### ***National Park Service***

North Atlantic Region  
15 State Street  
Boston, Massachusetts 02109  
(617) 223-5203  
(Wild & Scenic Rivers)

##### ***Federal Endangered Species (F&WS):***

U.S. Fish and Wildlife Service  
70 Commercial Street, Suite 300  
Concord, New Hampshire 03301-5087  
(603) 223-2541

##### ***Federal Endangered Species & EFH (NMFS)***

National Marine Fisheries Service  
55 Great Republic Drive  
Gloucester, MA 01930  
Phone: (978) 281-9102  
(978) 281-9301 - fax

##### ***U.S. Environmental Protection Agency, Region I***

5 Post Office Square, Suite 100  
Boston, Massachusetts 02109  
(617) 918-2000

##### ***Department of Agriculture***

Bureau of Aquaculture  
P. O. Box 97  
190 Rogers Avenue  
Milford, Connecticut 06460  
(203) 874-0696

#### **2. STATE OF CONNECTICUT**

##### ***Department of Energy & Environmental Protection***

##### **(Coastal Projects)**

Office of Long Island Sound Programs  
79 Elm Street  
Hartford, Connecticut 06106-5127  
(860) 424-3034

##### **(Aquaculture Projects)**

Connecticut Department of Agriculture  
Bureau of Aquaculture & Laboratory  
PO Box 97  
Milford, CT 06460  
(203) 874-0696

##### **(Inland Projects)**

Inland Water Resources Division  
79 Elm Street  
Hartford, Connecticut 06106-5127  
(860) 424-3019

##### **(State Endangered Species)**

Bureau of Natural Resources  
Wildlife Division  
Natural Diversity Data  
Base  
79 Elm Street  
Hartford, Connecticut 06106-5127  
(860) 424-3011

##### **(Mashantucket Pequot Tribal Nation)**

Department of Natural Resources Protection &  
Regulatory Affairs  
550 Trolley Line Boulevard  
P. O. Box 3202  
Mashantucket, Connecticut 06338-3202

### **3. HISTORIC RESOURCES**

#### ***Tribal Historic Preservation Officers***

Mashantucket Pequot Tribal Nation  
Marissa Turnbull, THPO  
550 Trolley Line Boulevard  
P. O. Box 3202  
Mashantucket, Connecticut 06338-3202  
Phone (860) 396-6887  
Fax (860) 396-6914

Mohegan Tribe of Indians of Connecticut  
James Quinn, Tribal Historic Preservation Officer  
13 Crow Hill Rd.  
Uncasville, CT 06382

Phone (860) 862-6393  
Fax (860) 862-6395

Mohegan Tribe of Indians of Connecticut  
Compliance and Regulations Department  
13 Crow Hill Road  
Uncasville, CT 06382

#### ***Archaeological Information***

State Historic Preservation Office  
Department of Economic and Community Development  
Catherine Labadia, Deputy State Historic Preservation Officer  
One Constitution Plaza, 2<sup>nd</sup> Floor  
Hartford, Connecticut 06103-6103  
(860) 256-2800 (main)  
(860) 256-2764 (direct)

### **4. ORGANIZATIONAL WEBSITES**

U. S. Army Corps of Engineers – New England District

[www.nae.usace.army.mil/missions/regulatory.aspx](http://www.nae.usace.army.mil/missions/regulatory.aspx)

U. S. Army Corps of Engineers Headquarters [www.usace.army.mil](http://www.usace.army.mil) (click “Services for the Public”)

U.S. Environmental Protection Agency [www.epa.gov/owow/wetlands/](http://www.epa.gov/owow/wetlands/)

National Marine Fisheries Service [www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)

U.S. Fish and Wildlife Service [www.fws.gov](http://www.fws.gov)

National Park Service [www.nps.gov/rivers/index.html/](http://www.nps.gov/rivers/index.html/)

Federal Emergency Management Agency [www.fema.gov](http://www.fema.gov)

Connecticut Dept. of Energy & Environmental Protection <http://www.ct.gov/deep/site/default.asp>

Connecticut Dept. of Agriculture, Bureau of Aquaculture & Laboratory  
<http://www.ct.gov/doag/cwp/view.asp?a=3768&q=451508&doagNav=>

U.S. Environmental Protection Agency, Region 1 – Low Impact Development-practices and state-specific resources, including CT DEP Stormwater Quality Manual [www.epa.gov/ne/topics/water/lid.html](http://www.epa.gov/ne/topics/water/lid.html)

U.S. Environmental Protection Agency – Green Infrastructure website [www.epa.gov/greeninfrastructure](http://www.epa.gov/greeninfrastructure)



US Army Corps  
of Engineers®  
New England District

## Appendix E: Self-Verification Notification Form

This form is required for all **non-tidal projects in Connecticut**, but **not** required if work is done within boundaries of Mashantucket Pequot or Mohegan Tribal Lands. **Before** work commences, complete **all** fields (write “none” if applicable); attach project plans (not required for projects involving the installation of construction mats only); and any state or local approval(s); and send to:

Permits & Enforcement Branch B  
U.S. Army Corps of Engineers  
696 Virginia Road  
Concord, MA 01742-2751  
or [cenae-r@usace.army.mil](mailto:cenae-r@usace.army.mil)

and

CT DEEP  
Inland Water Resources Division  
79 Elm Street  
Hartford, CT 06106-5127

\*\*\*\*\*

State or local Permit Number: \_\_\_\_\_

Date of State or local Permit: \_\_\_\_\_

State/local Project Manager: \_\_\_\_\_

Permittee: \_\_\_\_\_

Address, City, State & Zip: \_\_\_\_\_

Phone(s) and Email: \_\_\_\_\_

Contractor: \_\_\_\_\_

Address, City, State & Zip: \_\_\_\_\_

Phone(s) and Email: \_\_\_\_\_

Consultant/Engineer/Designer: \_\_\_\_\_

Address, City, State & Zip: \_\_\_\_\_

Phone(s) and Email: \_\_\_\_\_

Wetland/Soil Scientist Consultant: \_\_\_\_\_

Address, City, State & Zip: \_\_\_\_\_

Phone(s) and Email: \_\_\_\_\_

Project Location (provide detailed description & locus map): \_\_\_\_\_

Address, City, State & Zip: \_\_\_\_\_

Latitude/Longitude Coordinates: \_\_\_\_\_

Waterway Name: \_\_\_\_\_

Project Purpose (include all aspects of the project including those not within Corps jurisdiction):

Work Description: \_\_\_\_\_

**Work will be done under the following GP(s) (check all that have associated impacts):**

**\_\_\_\_\_ GP. 2 - Repair or maintenance of authorized or grandfathered structures/fills**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 5 - Boat ramps/marine railways**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 6 - Utility line activities (include calculations for each single & complete crossing  
– attach additional sheet if necessary)**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 9 - Shoreline and bank stabilization projects**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 10 - Aquatic habitat restoration, establishment and enhancement activities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 11 - Fish & wildlife harvesting, enhancement and attraction devices and activities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 12 - Oil Spill and Hazardous material cleanup**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 13 - Cleanup of hazardous and toxic waste**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 14 - Scientific measurements devices**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 15 - Survey activities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 17 - New/expanded developments & recreational facilities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

**\_\_\_\_\_ GP. 18 - Linear transportation projects- wetland crossings only (include calculations for each single & complete crossing - attach additional sheet if necessary)**

Area of total wetland impacts: temporary \_\_\_\_\_SF permanent \_\_\_\_\_SF

Area of total waterway impacts: temporary \_\_\_\_\_SF permanent \_\_\_\_\_SF

**\_\_\_\_\_ GP. 19 - Stream, river & brook crossings – not including wetland crossings (include calculations for each single & complete crossing – attach additional sheet if necessary)**

Area of total wetland impacts: temporary \_\_\_\_\_SF permanent \_\_\_\_\_SF

Area of total waterway impacts: temporary \_\_\_\_\_SF permanent \_\_\_\_\_SF

**\_\_\_\_\_ GP. 21 - Temporary fill not associated with any other GP activities**

Area of total wetland impacts: temporary \_\_\_\_\_SF permanent \_\_\_\_\_SF

Area of total waterway impacts: temporary \_\_\_\_\_SF permanent \_\_\_\_\_SF

**Does your project include any secondary effects?** Yes \_\_\_\_\_ No \_\_\_\_\_

(Secondary effects include, but are not limited to non-tidal waters or wetlands drained, flooded, fragmented, or mechanically cleared resulting from a single and complete project. See Appendix F - Definitions.) If YES, describe here: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Proposed Work Dates:** Start: \_\_\_\_\_ Finish: \_\_\_\_\_

**Your name/signature below, as permittee, confirms that your project meets the self-verification criteria and that you accept and agree to comply with the applicable terms and conditions in the Connecticut General Permits.**

\_\_\_\_\_  
**Signature of Permittee**

\_\_\_\_\_  
**Date**



## APPENDIX F - DEFINITIONS

**Artificial Reef:** A structure which is constructed or placed in waters for the purpose of enhancing fishery resources and commercial and recreational fishing opportunities.

**Boating facilities:** These provide, rent or sell mooring space, such as marinas, boat/yacht clubs, boat yards, dockominiums, town facilities, dockominiums, etc. Not classified as boating facilities are piers shared between two abutting properties or town mooring fields that charge an equitable user fee based on the actual costs incurred.

**Construction mats:** Construction, swamp and timber mats (herein referred to as “construction mats”) are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together.

**Compensatory mitigation:** The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

**Currently serviceable:** Useable as is or with some minor maintenance, but not so degraded as to essentially require reconstruction.

**Direct effects:** Effects that are caused by the activity and occur at the same time and place.

**Dredged material & discharge of dredged material:** These are defined at 33 CFR 323.2(c) and (d). The term dredged material means material that is excavated or dredged from waters of the United States.

**Discharge:** The term “discharge” means any discharge of dredged or fill material into waters of the United States.

**Enhancement:** The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or 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.

**Ephemeral stream:** An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

**Establishment (creation):** The manipulation of the physical, chemical or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

**Expansions:** Work that increases the footprint of fill, depth of basin or drainage feature, structures or floats, or slip capacity.

**Fill material & discharge of fill material:** These are defined at 33 CFR 323.2(e) and (f). The term fill material is defined as material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a water of the U.S.

**Federal navigation projects (FNPs):** These areas are maintained by the Corps; authorized, constructed and maintained on the premise that they will be accessible and available to all on equal terms; and are comprised of Corps Federal anchorages, Federal channels and Federal turning basins. Information, including the limits, is provided at <http://www.nae.usace.army.mil/Missions/Navigation.aspx>

**FNP Buffer Zone:** The buffer zone of a Corps FNP is equal to three times the authorized depth of the FNP. For additional information see <http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/>

**Historic Property:** Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

**Intermittent stream:** An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

**Indirect effects:** Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

**Individual Permit:** A Department of the Army authorization that is issued following a case-by-case evaluation of a specific structure or work in accordance with the procedures of 33 CFR 322, or a specific project involving the proposed discharge(s) in accordance with the procedures of 33 CFR 323, and in accordance with the procedures of 33 CFR 325 and a determination that the proposed discharge is in the public interest pursuant to 33 CFR 320.

**Living Shoreline:** A term used to describe a combination of mostly naturally derived materials including plants, shell and rock or manufactured rock-like surfaces that are used along a shoreline exhibiting erosion to dissipate wave energy and to collect naturally deposited sediment.

**Maintenance:** Maintenance does not include any modification that changes the character, scope, or size of the original fill design.

**Navigable waters of the United States:** Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The Connecticut River has been determined to be a Navigable water of the United States. Refer to Title 33 CFR Part 329.

**Ordinary High Water Mark (OHW):** A line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas. See 33 CFR 328.3(e).

**Perennial stream:** A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

**Practicable:** Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

**Preservation:** 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:** 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.

**Rehabilitation:** 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:** 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: reestablishment and rehabilitation.

**Secondary effects:** These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final Section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are a) aquatic areas drained, flooded, fragmented, or mechanically cleared, b) fluctuating water levels in an impoundment and downstream associated with the operation of a dam, c) septic tank leaching and surface runoff from residential or commercial developments on fill, and d) leachate and runoff from a sanitary landfill located in waters of the U.S. See 40 CFR 230.11(h).

**Shellfish dredging:** Shellfish dredging typically consists of a net on a frame towed behind a boat to capture shellfish and leave the sediment behind. Dredges may skim the surface, utilize hydraulic jets, toothed rakes or suction apparatus.

**Special aquatic sites:** These include inland and saltmarsh wetlands, mud flats, vegetated shallows (submerged aquatic vegetation), sanctuaries and refuges, coral reefs, and riffle and pool complexes. These are defined at 40 CFR 230.3 and listed in 40 CFR 230 Subpart E.

**Stream bed:** The substrate of the stream channel between the OHW marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the streambed, but outside of the OHW marks, are not considered part of the streambed.

**Stream channelization:** The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

**Structure:** An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

**Temporary impacts:** Temporary impacts include waters of the U.S. that are temporarily filled, flooded, excavated, drained or mechanically cleared because of the regulated activity.

**Tide gates:** Structures such as duckbills, flap gates, manual and self-regulating tide gates, etc. that regulate or prevent upstream tidal flows.

**Utility Line:** Any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, data, and telegraph messages, and radio and television communication. The term utility line does not include activities that drain a water of the U.S., such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area.

**Vegetated shallows:** Permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as eelgrass and widgeon grass (*Ruppia maritima*) in marine systems (doesn't include salt marsh) as well as a number of freshwater species in rivers and lakes. Note: These areas are also commonly referred to as submerged aquatic vegetation (SAV).

**Vernal pools (VPs):** Vernal pools (VPs): For the purposes of these GPs, VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In most years, VPs support one or more of the following obligate indicator species: wood frog, spotted salamander, blue-spotted salamander, marbled salamander, Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish. VP areas are:

- Depression (includes the VP depression up to the spring or fall high water mark, and includes any vegetation growing within the depression),
- Envelope (area within 0-100 feet of the VP depression's edge), and
- Critical terrestrial habitat (area within 100-750 feet of the VP depression's edge).

The envelope and critical terrestrial habitat protect the water quality of the breeding site (e.g., providing shade, leaf litter, and coarse woody material) and support the non-larval life-cycle stages of amphibian species. Note: The Corps may determine that a waterbody should not be designated as a VP based on available evidence.

**Weir:** A barrier across a river designed to alter the flow characteristics. In most cases, weirs take the form of a barrier, smaller than most conventional dams, across a river that causes water to pool behind the structure (not unlike a dam) and allows water to flow over the top. Weirs are commonly used to alter the flow regime of the river, prevent flooding, measure discharge and help render a river navigable.

**Waters of the United States.:** Waters of the United States are defined in Title 33 CFR Part 328. These waters include more than navigable waters of the U.S. and are the waters where permits are required for the discharge of dredged or fill material pursuant to Section 404 of the Clean Water Act. Waters of the U.S. include jurisdictional wetlands.



Design and construction guidance may be found in the U.S. Forest Service stream simulation manual, “Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings”<sup>1</sup>. Section 5.3.3 Headcutting Potential and 6.2 Design of the Stream-Simulation Channel Bed are particularly relevant. Sections 7.5.2.3 Construction Methods and 8.2.11 Stream-Simulation Bed Material Placement both show important steps in the project construction. Chapter 6.1 is relevant for proper alignment and construction to prevent bank erosion or streambed scour.

#### Permanent Crossings in Tidal Streams

These are relevant for new and replacement crossings and culvert extensions.

1. Match the velocity, depth, cross-sectional area, and substrate of the existing stream outside the crossing, if it exists, and size crossings such that they do not restrict tidal flow over the full natural tide range seaward of the crossing. The Corps will typically require a low lying property analysis to ensure flooding is not a concern.
2. Construct crossings in dry conditions.

#### Permanent Crossings in Non-Tidal Streams

These are relevant for new and replacement crossings and culvert extensions.

1. Span<sup>2</sup> streams or size culverts or pipe arches such that they are wider than bankfull width (BFW). Spans are strongly preferred as they avoid or minimize disruption to the streambed, and avoid entire streambed reconstruction and maintenance inside the culvert or pipe arch (see 4, 5 & 7 below), which may be difficult in smaller structures. The span width of bridges, box culverts and arches at bankfull elevation should be  $\geq 1.2$  times BFW where practicable. In many cases bankfull width is not necessarily interchangeable with the elevation of ordinary high water.<sup>3</sup>
2. Embed culverts or pipe arches below the grade of the streambed. This is not required when ledge/bedrock and/or utilities prevents embedment, in which case spans are preferred. The following depths are recommended to prevent streambed washout, and ensure compliance and long-term success:
  - a.  $\geq 1$ -2 feet for box culverts and pipe arches<sup>4</sup>, or
  - b.  $\geq 1$ -2 feet and at least 25% for round pipe culverts.
3. Match the culvert gradient (slope) with the stream channel profile.
4. Construct crossings carrying normal flows with a natural bottom substrate within the structure matching the characteristics of the substrate in the natural stream channel and the banks

---

<sup>1</sup> [www.nae.usace.army.mil/missions/regulatory.aspx](http://www.nae.usace.army.mil/missions/regulatory.aspx) >> “Stream and River Continuity.”

<sup>2</sup> For the purposes of this GP, spans are bridges, three-sided box culverts, open-bottom culverts or arches that span the stream. The use of bridge piers or similar supports does not prevent a structure from being considered as a span.

<sup>3</sup> BFW corresponds with “bankfull stage” and this should be field delineated in accordance with the U.S. Forest Service documents: a) [U.S. Forest Service stream simulation manual](#)<sup>1</sup>; b) [“Stream Channel Reference Sites: An Illustrated Guide to Field Technique”](#) (Harrelson, et al. 1994); and c) [“A Guide to Identification of Bankfull Stage in the Northeastern United States”](#).

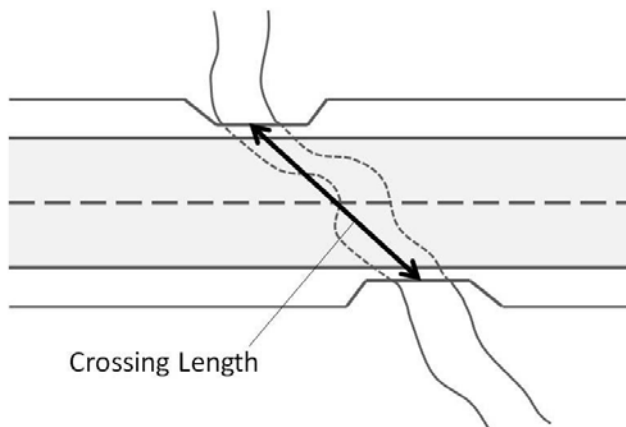
<sup>4</sup> For 2(a) and 2(b), deeper embedment depths may be needed if there are elements of the constructed stream bed that are greater than 15 inches in diameter.

(mobility, slope, stability, confinement, grain and rock size) at the time of construction and over time as the structure has had the opportunity to pass substantial high flow events.

5. Construct crossings with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows at the time of construction and over time. In order to provide appropriate water depths and velocities at a variety of flows and especially low flows, it is usually necessary to reconstruct the streambed (sometimes including a low flow channel), or replicate or preserve the natural channel within the structure. Otherwise, the width of the structure needed to accommodate higher flows will create conditions that are too shallow at low flows. The grain and rock size, and arrangement of streambed materials within the structure should be in accordance with (4) above. Flows could go subsurface within the structure if only large material is used without smaller material filling the voids.

6. *Openness > 0.82 feet (0.25 meters)*

Openness is the cross-sectional area of a structure opening divided by its crossing length when measured in consistent units (e.g. feet). For a box culvert, openness = (height x width)/ length.



For crossing structures with multiple cells or barrels, openness is calculated separately for each cell or barrel. At least one cell or barrel must meet the appropriate openness standard. The embedded portion of a culvert is not included in the calculation of cross-sectional area for determining openness.<sup>5</sup>

Openness > 0.82 feet is recommended to make the structure more likely to pass small, riverine wildlife such as turtles, mink, muskrat and otter that may tend to

avoid structures that appear too constricted. This openness standard is too small to accommodate large wildlife such as deer, bear, and moose. Structures that meet this openness standard are much more likely than traditional culverts to pass flood flows and woody debris that would otherwise obstruct water passage. It is likely that most structures that meet all the other general standards will also meet this openness standard. However, for some very long structures it may be impractical or impossible to meet this standard.

7. Construct banks on each side of the stream inside the span that match the horizontal profile of the existing stream and banks outside the span. To prevent failure, all constructed banks should have a height to width ratio of no greater than 1:1.5 (vertical:horizontal) unless the stream is naturally incised. Tie the banks into the up and downstream banks and configure them to be stable during expected high flows. Use materials that match the up and downstream banks (avoid the use of angular riprap and armored slopes, except where necessary for structural reasons, in which case they should be top-dressed with natural stream bed material). Construct a wildlife shelf on at least one of the banks. The constructed banks (with a wildlife shelf) will allow for terrestrial passage for wildlife and prevent flow from being focused to one side and

<sup>5</sup> An Openness Ratio Spreadsheet shows how to calculate the open area for embedded pipe culverts to meet the 0.82 standard for openness. See [www.nae.usace.army.mil/missions/regulatory.aspx](http://www.nae.usace.army.mil/missions/regulatory.aspx) >> Stream and River Continuity.

scouring the bed, especially against the structure's sidewall which may undermine the footings in the case of spans.

#### Temporary Crossings in Non-Tidal Streams

Temporary crossings shall consist of spans, culverts, construction mats or fords designed and constructed as follows:

1. All temporary crossings:
  - a. Impacts to the streambed or banks require restoration to their original condition (see U.S. Forest Service stream simulation manual referenced on page 1 of this document for stream simulation restoration methods). Use geotextile fabric or other appropriate bedding for stream beds and approaches where practicable to ensure restoration to the original grade.
  - b. Avoid excavating the stream or embedding crossings.
2. Culverts:
  - a. Install energy dissipating devices downstream if necessary to prevent scour.
3. Stream fords: Equipment may ford streams when: it is not feasible to construct a span or culvert (e.g., streams having no or low banks, emergency situations); the natural stream bed and banks consist of ledge, rock or sand that prevents disturbance and turbidity; and there is a stable, gradual approach.
4. Spans: Anchor spans where practicable so they do not wash out during high water.
5. Construction mats: Build construction mat stream crossings in accordance with the Construction Mat BMPs, specifically the Wetland/Stream Channel Crossing section. See [www.nae.usace.army.mil/missions/regulatory.aspx](http://www.nae.usace.army.mil/missions/regulatory.aspx) >> [State General Permits](#) >> Connecticut General Permit Documents.

June 14, 2011

Mr. Larry Bonin  
Town of Old Saybrook  
302 Main Street  
Old Saybrook, Connecticut 06475

Sent via e-mail: [larrybonin@gmail.com](mailto:larrybonin@gmail.com)

Re: Results of Subsurface Investigation Program  
Repairs to Old Saybrook Town Dock, Old Saybrook, CT

Dear Larry:

This letter summarizes the results of recent test boring and test pit excavations completed to determine subsurface conditions and existing stone wall geometries at the Old Saybrook Town Dock in Old Saybrook, Connecticut. The site is located on the west bank of the Connecticut River (Between the Bridges) and east of the intersection of Ferry and Clark Roads. Our work was completed in accordance with our fully executed contract agreement dated May 16, 2011.

#### PURPOSE AND SCOPE

We understand that in the 1800s, the existing dock served as a ferry landing for boats crossing the Connecticut River. Today, it is used by local fishermen as docking facilities and storage of traps for their fishing efforts. The dock is in disrepair and at this time, the town desires to make repairs to the dock that would extend its life an additional 10 years.

The scope of GNCB work included:

1. Plan, arrange for, and monitor an subsurface exploration program consisting of three test borings (B-1, B-2, and B-3A) and two test pits (TP-1 and TP-2). The purpose of the program is to determine subsurface conditions and to determine the geometry of the existing stone walls and backfill placed below the existing pavement.
2. Make engineering analysis to determine areas of needed dock repairs, and develop a conceptual plan for repair.

Principals  
Kenneth Gible, P.E.  
James F. Norden, P.E.  
Charles C. Brown, P.E.  
  
Geotechnical Associate  
David L. Freed, P.E.  
  
Structural Associate  
Richard A. Cantola, P.E.

130 Elm Street  
P.O. Box 802  
Old Saybrook, CT 06475  
Tel 860.388.1224  
Fax 860.388.4613  
[lastname@gncbengineers.com](mailto:lastname@gncbengineers.com)  
[gncbengineers.com](http://gncbengineers.com)



3. Prepare this engineering report that summarizes the field work and our recommendations.

### SUBSURFACE EXPLORATIONS

GNCB recommended a program of three test borings (B-1, B-2, and B-3A) and two machine excavated test pits (TP-1 and TP-2) to obtain information about the existing dock area. The explorations were completed on May 23, 2011 at the approximate locations shown on the attached Drawing 1, "Subsurface Exploration Plan." GNCB arranged for the test boring and test pit contractors, located the explorations in the field by taping from existing site features, monitored the explorations on a full-time basis, documented field conditions, and determined approximate ground surface elevations at the explorations by interpolating elevations shown on the base plan. The exploration programs and results of the explorations are discussed below:

Test Borings: General Borings, Inc. of Prospect, Connecticut drilled the test borings with a standard truck mounted drill rig. Drill holes were advanced with 4 in. diameter hollow stem augers; standard split spoon samples (ASTM D1586) were obtained typically at 5 ft. intervals, except near continuous samples were obtained within the upper 10 ft. Table I summarizes the pertinent information obtained from the test borings; test boring logs, prepared by the contractor and reviewed by GNCB, are attached.

Test borings B-1 and B-3A ranged from 45 to 50 ft. deep and terminated within granular soils below the upper man-placed fill and organic soils. Test boring B-2 was only drilled to 15 ft. and terminated after penetrating about 5 ft. into the organic soils below the surface man-placed fill.

Test Pits: Machnik Bros., Inc. of Lyme, Connecticut excavated the test pits with a small rubber-tired backhoe. The pits were excavated along the backside of the existing stone walls, at the time of low tide. Due to the inflow of groundwater, even at the time the test pits were excavated at low tide, the pits were terminated at a depth about 5 ft. The test pits were backfilled with the excavated soil; the soil was placed in layers and each layer compacted with a vibratory compactor; the surface was covered with a 6 in. thick layer of off-site processed stone. Wall geometry conditions were similar at both locations, and are depicted on the attached Sketch SKS1.

### SITE AND SUBSURFACE CONDITIONS

Site Conditions: The existing town dock measures approximately 25 ft. wide (west end) to 60 ft. wide (east end) and is approximately 250 ft. long. Nine 25 ft. long floating piers extend perpendicular, and equally spaced, from the south side of the dock; a fixed pier also extends from the west side into the Connecticut River. The dock surface is paved, and is typically at a grade

ranging from about El. 5.5 to El. 5 (Elevations are in feet and referenced to Mean Low Water - MLW), except the southwest corner of the dock is from 1 to 2 ft. lower (about El. 3.5). Mud line around the dock is typically at about El. 0, adjacent to the dock and drops gradually to about El. -2.5 at the south end of the floating docks.

Visibly, the sides of the dock consist of a stone wall comprised of cut stone pieces that are typically from 6 to 12 in. square. The stones are either cemented together or chinked to make a tight surface. In some areas, the outside face of the stone walls are near vertical and straight, with the most severely deflected an approximately 40 ft. section along the north side and east end, which has a severe outward bow. Areas of the south side are showing significant outward bowing at this time. The stone walls are generally in tact, except at the northeast corner and other localized areas where numerous stone blocks have fallen out of place, however remain in the vicinity of the wall.

Due to past wall outward movements, some timber piles were driven to try to arrest this movement. They are not spaced close enough together to be effective, and several are severely deflected.

Wall Geometries and Backfill: Both of the test pits revealed similar conditions behind the visible front portion of the wall; these conditions are shown on Sketch SKS1. The walls consist of the following:

- A front one foot thick +/- coarse of cut mortared/chinked stone work that is typically 6 to 12 in. size pieces.
- A loose zone, about 2 ft. thick, of smaller 4 to 6 in. size stone that appear to be randomly placed, not well bonded or "chinked" into the face stone.
- Beyond the front and back stone layers, soil behind the wall and below the existing pavement is a well-graded sand and gravel.
- The stone wall appears to be set on a layer (uncertain as to its thickness) of sand and gravel with some boulders. This mixed granular layer with boulders, appears to be located just below the wall.

Subsurface Conditions: The test borings revealed three strata of subsurface conditions consisting of a man-placed fill underlain by slightly organic silt, and further underlain by a granular deposit. These conditions are described below, progressing downward from ground surface:

<u>Range in Thickness (ft.)</u>	<u>Description</u>
13 to 14	Medium dense to loose gray and brown coarse to fine SAND, little gravel and little to trace silt with

	some pieces of wood and boulders (MAN-PLACED FILL)
28 to 31.5	Stiff dark gray slightly organic SILT, trace fine sand, and occasional peat fibers (ORGANIC SOIL)
At least 11	Medium dense to loose gray fine SAND to coarse to fine SAND (GRANULAR DEPOSIT).

The man-placed fill, which extends to about El. -10, appears to be in tact soil and did not contain noticeable voids. However, some of the wood pieces appeared to be large and may represent some former buried wood docks. The organic soil below the man-placed fill is essentially free of peat fibers and in general is a dense or stiff layer. The top of the naturally-deposited sand was encountered between about El. -37.4 (at B-1) and El. -39.6 (at B-3A).

Water Levels: Water levels at the site are tidal. Reported high tide is at El. 4.8 and mean low water is at El. 0.0. Within the southwest corner of the dock, the tidal water at high tide inundates about 1 to 1.5 foot depth above ground surface. The two test pit excavations, which were excavated during a low tide, encountered water at a depth about 5 ft.

## DISCUSSION

In our opinion, the dock can be structurally repaired to extend its life an additional 10 years, provided dredging is not completed in front of the stone walls to lower the mudline. We observed the following needed structural repairs; cosmetic repairs, such as replacing the existing floating docks and repaving of the dock surface, is not discussed in this report:

1. Rebuild stone walls that have collapsed.
2. Rechalk stone walls that have visible open spaces.
3. Provide additional lateral support for walls that extend 5 ft. or greater above the mudline and appear to be in distress, and provide means to prevent falling out of existing stones.
4. Raise grade at the southwest corner of the dock to prevent routine flooding during high tide.

We suggest that the work to be completed for repair item no. 3 consist of:

- Driving new piles adjacent to, and as close as practical, to the water side of the stone walls. The piles should be about 15 to 20 ft. long, such that the top of the piles are even with the top of stone wall. The piles should be spaced about 5 ft. apart. We anticipate that treated

timber piles will be sufficient for the design, however a stiffer pile, such as steel, may be needed, depending on the wall loads.

- Placing a heavy duty steel mesh between the newly installed piles and existing stone walls.
- Install horizontal timbers, spaced about 2 ft. apart, between the piles, so that the steel mesh is pinned against the stone wall surface.

With regard to repair item 4, the placement of new fill to raise the grade will result in some additional ground surface settlement, due to the area placement of fill over an organic soil. However, we believe for the 1 to 1.5 ft. planned grade raise required for the southwest area, the settlement will be less than 2 in. and will occur over a 5 to 10 year period. We believe this settlement will be acceptable.

The above conceptual repairs need to be formalized by a final design. Since the above repairs do not need to be completed in all areas, the final design process will identify the limits that each repair needs to be completed. In addition, we recommend that final design include a pile test program of 4 to 5 piles driven outside the existing stone walls. Since test borings were not completed outside the stone walls, the test pile program will enable confirmation that the man-placed fill conditions encountered by the recent test borings are present outside the limits of the dock, and will provide the necessary lateral support needed in the design. During final design, contract drawings will be prepared for contractor bidding and repair work.

### RECOMMENDATIONS

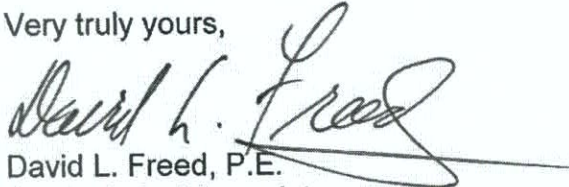
In summary, we recommend the following:

1. The dock life can be extended an additional 10 years by completing structural repairs.
2. Structural repairs include rebuilding and rethinking of collapsed or partially collapsed walls, providing additional lateral support to some walls and a means for preventing stones to fall out of place, and raising the ground surface at grades that currently exist below high tide level.
3. Undertake a project final design for the repairs and prepare construction documents (drawings and specifications) for the repair efforts. The final design must include a test pile program to confirm conditions outside the dock stone walls are similar to the inside conditions, and to determine length of piles required.
4. Complete permit applications to regulatory agencies.

FURTHER CONSIDERATIONS

This report addresses the initial intent of the Town to provide a short term, 10 year, repair to the dock facilities. We remind you that our recommendations are based on the assumption that no dredging may be completed around or within proximity of the existing stone walls. The Town, however, may want to consider a long-term solution to upgrade the dock facility, which would also permit some future dredging. While the long-term solution would require a greater amount of current funding, the Town could justify the added cost by receiving a much improved facility.

Very truly yours,

  
David L. Freed, P.E.  
Geotechnical Associate

Enclosures:

Table I – Summary of Test Borings  
Drawing 1 – Subsurface Exploration Plan  
Sketch SKS1 – Typical Existing Pier Edge Detail  
Representative Photographs (3 pages)

**TABLE I**  
**SUMMARY OF TEST BORINGS**  
**OLD SAYBROOK TOWN DOCK**  
**OLD SAYBROOK, CONNECTICUT**

TEST BORING NO.	TOTAL DEPTH (FT.)	APPROX, ELEV. GROUND SURFACE (FT.)	THICKNESS SOIL (FT.)			ELEV. OF TOP OF NATURAL SAND (FT.)
			MAN PLACED FILL	SILT ORGANIC	SAND	
B-1	52.0	3.6	13.0	28.0	11.0	-37.4
B-2	16.0	4.6	14.0	2.0	---	----
B-3A	57.0	5.4	13.5	31.5	12.0	-39.6

**NOTES:**

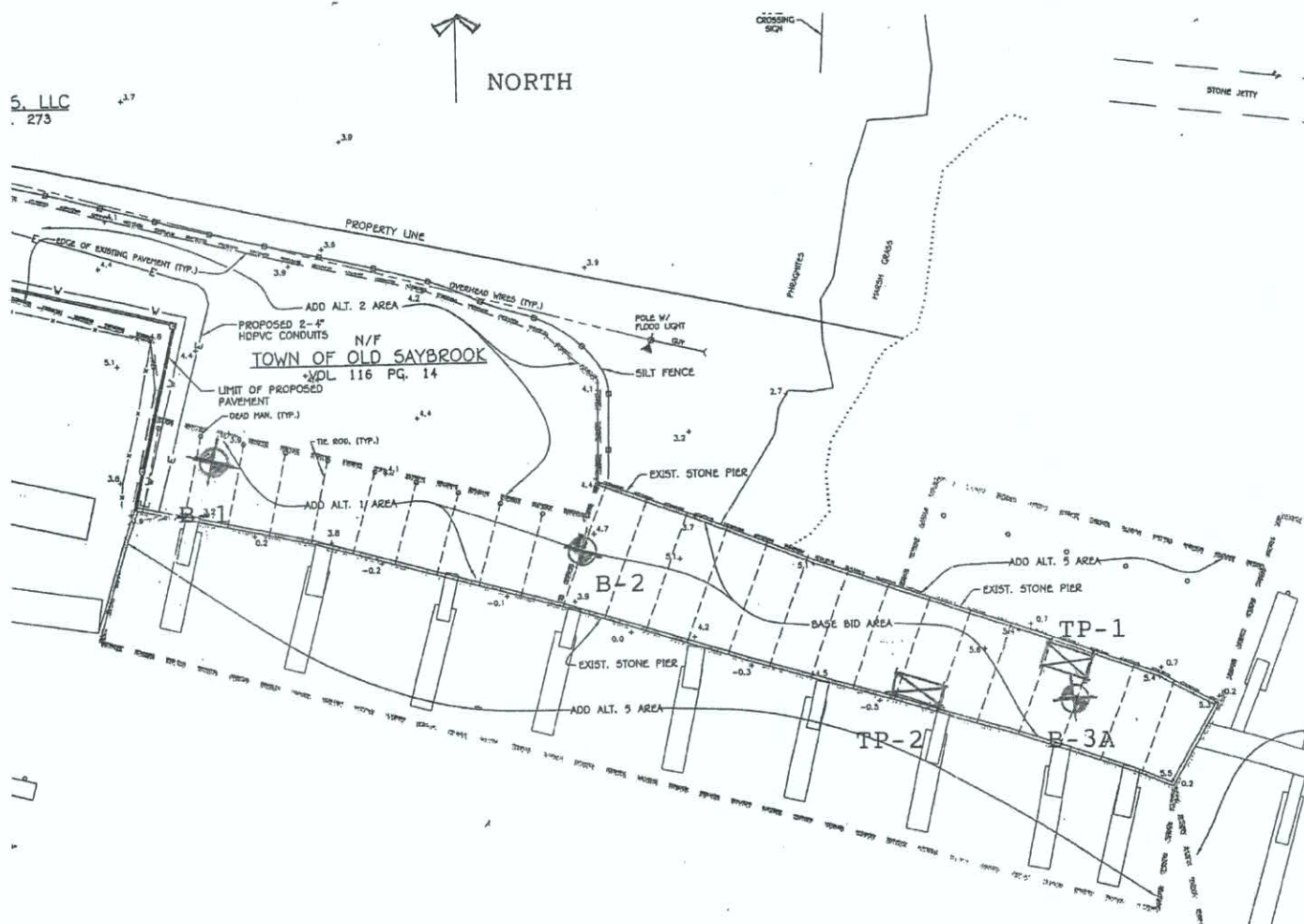
1. Refer to Drawing 1 for the locations of test borings.
2. Elevations are in feet and refer to Mean Low Water Datum (MLW)



**Consulting Engineers, P.C.**  
130 Elm Street Post Office Box 802  
OLD SAYBROOK, CONNECTICUT 06475  
Telephone (860) 388-1224  
www.gncbengineers.com

PROJECT NAME: OLD SAYBROOK TOWN DOCK  
PROJECT NO: P: 11047 SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_  
BY: \_\_\_\_\_ DATE JUNE 2011  
SCALE: 1"=40 FT

DRAWING 1  
**SUBSURFACE EXPLORATION PLAN**



**LEGEND:**



TEST BORINGS DRILLED  
BY: GENERAL BORINGS, INC.  
ON MAY 23, 2011



TEST PITS EXCAVATED  
BY: MACHNIK BROS., INC.  
ON MAY 23, 2011



EXISTING GROUND SURFACE  
ELEVATION SHOWN ON  
BASE PLAN

**NOTES:**

1. BASE PLAN PREPARED FROM PLAN PREPARED BY ANGUS McDONALD GARY SHARPE & ASSOCIATES, INC. ENTITLED: OVERALL PLAN PREPARED FOR TOWN OF OLD SAYBROOK FERRY ROAD OLD SAYBROOK, CT DATED: DEC. 4, 2008
2. ELEVATIONS ARE IN FEET, AND REFER TO MEAN LOW WATER DATUM

[illegible]

CLIENT: GNCB Consulting Engineers, Inc. FOREMAN/DRILLER: Erik DelPriore INSPECTOR: Roxanne Brown Surface Elevation: 3.6 Date Started: 5/23/11 Date Finished: 5/23/11 Groundwater Observations		<b>General Borings, Inc.</b> P. O. BOX 7135 PROSPECT, CT 06712 PROJECT NAME: Old Saybrook Town Dock LOCATION: Old Saybrook, CT GBI JOB NO. 30-11 TYPE: S Auger    Casing: HA    Sampler: S. S.    Core Bar:    Hole No. B-1 H Auger    HA    S. S. Size I. D. 4-1/4"    1-3/8" Hammer    140 LBS.    Bit Fall    30"										SHEET 2 OF 2 SOIL ENGINEER DESIGN ENGINEER				
D	E	P	T	H	Casing blows per foot	DEPTH IN FEET FROM - TO	NO.	PEN. IN	REC. IN	TYPE	BLOW'S PER 6 INCHES ON SAMPLER 0-6   6-12   12-18   18-24				STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
						40.0-42.0	13	24	20	SS	1	1	1	1	41.0'	13) Upper-Same as S-12 Lower-Very soft, Gray-brown fine SAND.
45						45.0-47.0	14	24	20	SS	2	2	3	3	SAND	14) Loose-Gray fine SAND, little silt, trace peat fibers.
50						50.0-52.0	15	24	22	SS	3	4	5	5		15) Loose-Same as S-14
55																52.0' EOB
60																
65																
70																
75																
80																
From Ground Surface to						Feet Used		in. Casing Then		in. Casing For		Feet				
Feet in Earth 52						Feet in Rock 0		No. of Samples 15		Hole No. B-1						
SAMPLE TYPE CODING: SS = DRIVEN						C = CORE		A = AUGER		U = UNDISTURBED PISTON						
PROPORTIONS USED: TRACE = 1-10%						LITTLE = 10-20%		SOME = 20-35%		AND = 35-50%						

CLIENT: GNCB Consulting Engineers, Inc. FOREMAN/DRILLER: Erik DelPriore		<b>General Borings, Inc.</b> P. O. BOX 7135 PROSPECT, CT 06712				SHEET    1        OF    1						
INSPECTOR:    Roxanne Brown Surface Elevation:    4.2 Date Started:    5/23/11 Date Finished:    5/23/11		PROJECT NAME:    Old Saybrook Town Dock LOCATION:    Old Saybrook, CT GBI JOB NO.    30-11				SOIL ENGINEER  DESIGN ENGINEER						
Groundwater Observations AT    1.5    AFTER    0.0    HRS AT        AFTER        HRS		TYPE S Auger H Auger		Casing HA 4-1/4"		Sampler S . S. 1-3/8"						
Hammer Fall		Size I. D. 140 LBS. 30"		Core Bar Bit		Hole No.    B-2 Line & Station Offset    L    R N Coordinate E. Coordinate						
DEPTH	Casing blows per foot	SAMPLE					BLOWS PER 6 INCHES ON SAMPLER				STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
		DEPTH IN FEET FROM - TO	NO.	PEN. IN	REC. IN	TYPE	0-6	6-12	12-18	18-24		
5		1.0-3.0	1	24	14	SS	10	7	8	10	FILL	3" Blacktop  1) Medium-Brown-gray fine-coarse SAND, some fine-medium gravel, little silt. Cobbles Boulders 2) Medium-Same as S-1 3) Very loose-Same as S-1 4) Very dense-Same as S-1
		3.0-5.0	2	24	17	SS	6	11	15	13		
		5.0-7.0	3	24	3	SS	2	2	3	5		
		7.0-7.8	4	10	8	SS	27	100/4				
10		10.0-10.3	5	3	2	SS	50/3				WOOD	5) Very dense-WOOD. Fill.
15		14.0-16.0	6	24	14	SS	2	2	2	2	ORG. SILT	6) Soft-Brown-gray organic SILT, with peat fibers, odor.
20											EOB	END OF BORING 16.0'  Note 1: Encountered HSA refusal at 9.0' Offset boring 5.0' South, advanced augers at new location and obtained S-5 at 10.0' Note 2: Augered through boulders from 12.5' to 14.0'
25											EOB	END OF BORING 16.0'
30											EOB	END OF BORING 16.0'
35											EOB	END OF BORING 16.0'
40											EOB	END OF BORING 16.0'
From Ground Surface to		Feet Used		in. Casing Then		in. Casing For		Feet				
Feet in Earth    16		Feet in Rock    0										
SAMPLE TYPE CODING:		SS = DRIVEN		C = CORE		A = AUGER		U = UNDISTURBED PISTON				
PROPORTIONS USED:		TRACE = 1-10%		LITTLE = 10-20%		SOME = 20-35%		AND = 35-50%				

CLIENT: GNCB Consulting Engineers, Inc. FOREMAN/DRILLER: Erik DelPriore INSPECTOR: Roxanne Brown Surface Elevation: 5.4 Date Started: 5/23/11 Date Finished: 5/23/11 Groundwater Observations		<b>General Borings, Inc.</b> P. O. BOX 7135 PROSPECT, CT 06712 PROJECT NAME: Old Saybrook Town Dock LOCATION: Old Saybrook, CT GBI JOB NO. 30-11 TYPE: S Auger    Casing: HA    Sampler: S. S.    Core Bar: 140 LBS. Bit: 30" Size I. D. 4-1/4"    1-3/8"										SHEET 1 OF 2  SOIL ENGINEER  DESIGN ENGINEER	
												Hole No. B-3A	
												Line & Station	
AT AFTER HRS		Hammer										Offset L R	
AT AFTER HRS		Fall										N Coordinate	
												E. Coordinate	

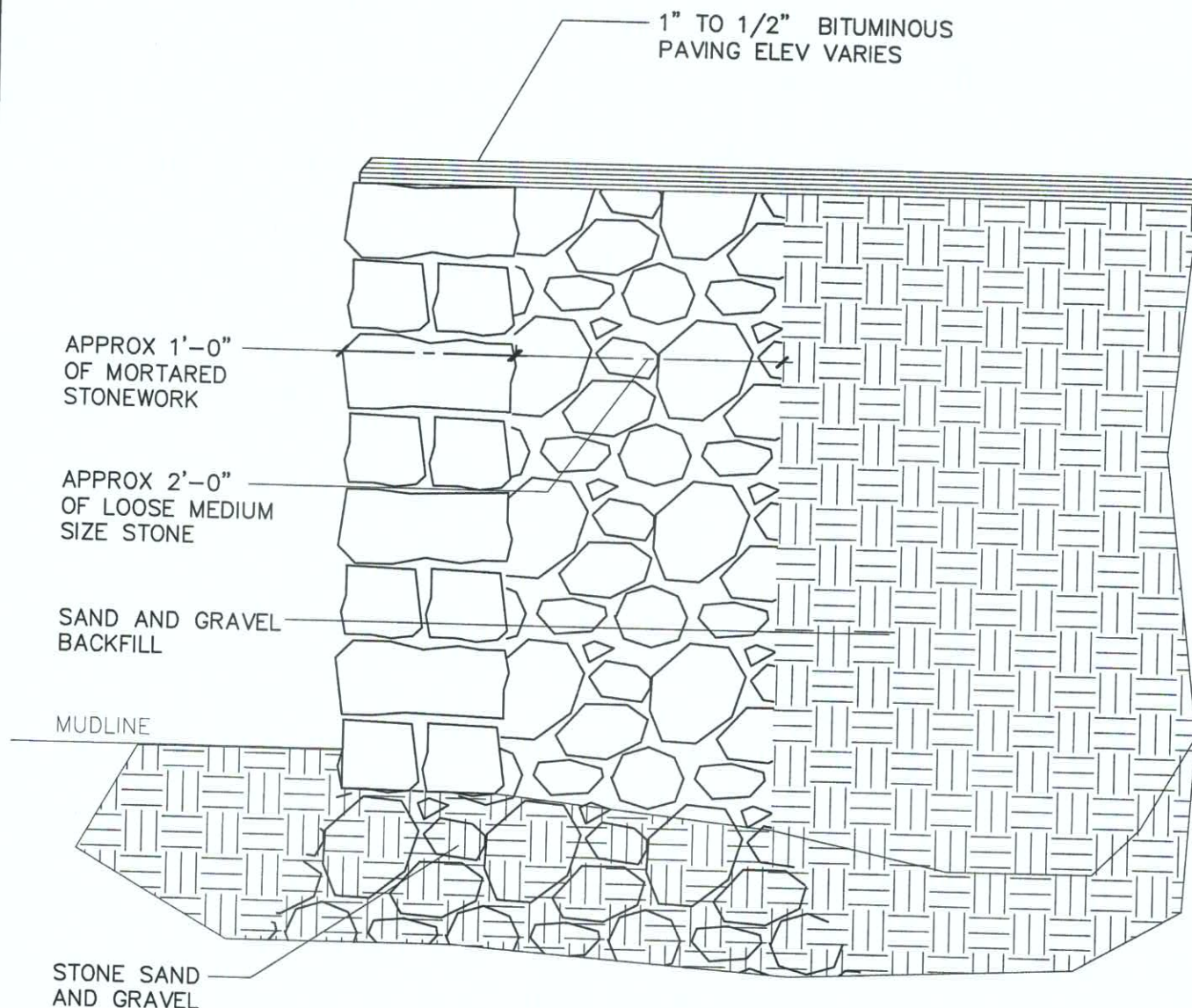
  

DEPTH	Casing blows per foot	SAMPLE					BLOWS PER 6 INCHES ON SAMPLER				STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
		DEPTH IN FEET FROM - TO	NO.	PEN. IN	REC. IN	TYPE						
							0-6	6-12	12-18	18-24		
5		1.0-3.0	1	24	9	SS	8	8	16	17	FILL	3" Blacktop, 3" Gravel 1) Medium-Gray-brown-black coarse-fine SAND, BOULDERS, GRAVEL, little silt. 2) Very dense-Same as S-1 3) Very dense-Same as S-1, wood. 4) Very dense-Same as S-3, fill, wood fragments 10.0'-13.5' Augered through wood. Wood - Fill.
		3.0-3.7	2	8	5	SS	28	50/2				
		5.0-7.0	3	24	4	SS	23	27	31	50		
		7.0-7.3	4	4	4	SS	100/4					
10											13.5'	5) No recovery. 6) Very stiff-Gray-brown SILT and fine SAND, little fine gravel.. 7) Medium-Gray-brown fine SAND and SILT. 8) Medium-Gray-brown SILT, trace fine sand, trace peat fibers. 9) Medium-Gray-brown SILT, trace fine sand.
15		15.0-17.0	5	24	0	SS	17	14	13	12	ORGANIC SILT	
20		20.0-22.0	6	24	16	SS	9	9	8	11		
25		25.0-27.0	7	24	20	SS	4	4	3	6		
30		30.0-32.0	8	24	20	SS	3	2	3	3		
35		35.0-37.0	9	24	21	SS	2	2	1	3		
40												

From Ground Surface to		Feet Used		in. Casing Then		in. Casing For		Feet	
Feet in Earth		Feet in Rock							
SAMPLE TYPE CODING: SS = DRIVEN		C = CORE		No. of Samples		Hole No. B-3A			
PROPORTIONS USED: TRACE = 1-10%		LITTLE = 10-20%		A = AUGER		U = UNDISTURBED PISTON			
				SOME = 20-35%		AND = 35-50%			

CLIENT: GNCB Consulting Engineers, Inc. FOREMAN/DRILLER: Erik DelPriore INSPECTOR: Roxanne Brown Surface Elevation: 5.4 Date Started: 5/23/11 Date Finished: 5/23/11 Groundwater Observations AT AFTER HRS AT AFTER HRS		<b>General Borings, Inc.</b> P. O. BOX 7135 PROSPECT, CT 06712 PROJECT NAME: Old Saybrook Town Dock LOCATION: Old Saybrook, CT GBI JOB NO. 30-11 TYPE: S Auger, Casing, Sampler, Core Bar Size I. D. 4-1/4" Hammer 140 LBS. Fall 30" Bit										SHEET 2 OF 2 SOIL ENGINEER DESIGN ENGINEER Hole No. B-3A Line & Station Offset L R N Coordinate E. Coordinate	
D E P T H	Casing blows per foot	SAMPLE						BLOWS PER 6 INCHES ON SAMPLER				STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
		DEPTH IN FEET FROM - TO	NO.	PEN. IN	REC. IN	TYPE	0-6	6-12	12-18	18-24			
45		40.0-42.0	10	24	18	SS	2	1	3	3	45.0'	SAND	10) Medium-Same as S-9
		45.0-47.0	11	24	24	SS	1	2	3	5			11) Loose-Gray fine-medium SAND, trace silt, trace coarse sand.
50		50.0-52.0	12	24	20	SS	10	13	15	17	57.0'	EOB	12) Medium-Gray fine-coarse SAND, trace silt, trace fine gravel.
		55.0-57.0	13	24	24	SS	14	13	17	19			13) Medium-Same as S-12
55											60		END OF BORING 57.0'
60											65		
65											70		
70											75		
75											80		
80													
		From Ground Surface to		Feet Used		in. Casing Then		in. Casing For					
		Feet in Earth 57		Feet in Rock 0									
SAMPLE TYPE CODING:		SS = DRIVEN		C = CORE		No. of Samples 13		Hole No. B-3A					
PROPORTIONS USED:		TRACE = 1-10%		LITTLE = 10-20%		SOME = 20-35%		AND = 35-50%					



## TYPICAL EXISTING PIER EDGE DETAIL

SCALE: 1"=1'-0"



Gibble Norden Champion Brown  
Consulting Engineers PC

130 ELM STREET  
POST OFFICE BOX 802  
OLD SAYBROOK  
CONNECTICUT 06475  
PHONE: 860 388 1224  
FAX: 860 388 4613  
GNCBENGINEERS.COM

OLD SAYBROOK TOWN DOCK  
FERRY ROAD OLD SAYBROOK CT

TYPICAL EXISTING PIER EDGE DETAIL

DRAWING REF:

SCALE: AS SHOWN

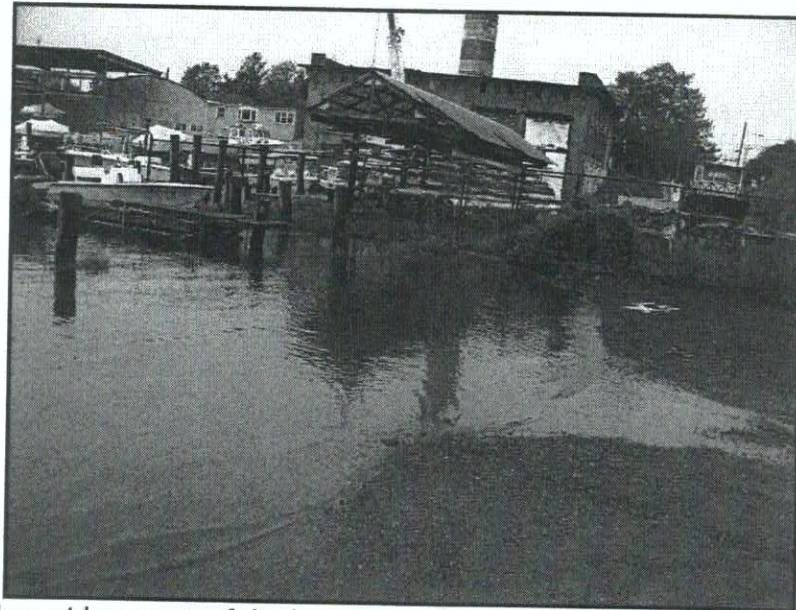
DATE: 06JUN11

SHEET

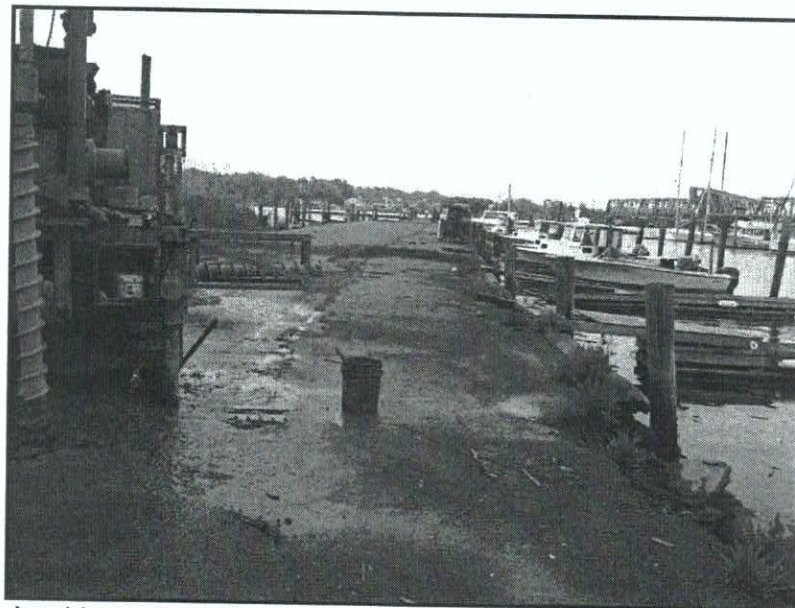
DRW: CCB

CHK:

**SKS1**



Southwest low area of dock (photo taken at high tide – 16 May 2011)



Looking east from TB-1 location (photo taken 23 May 11)

Representative Photographs  
Old Saybrook Town Dock  
Old Saybrook, Connecticut



TP-1 Start of excavation.



TP-1 Completed excavation.

Representative Photographs  
Old Saybrook Town Dock  
Old Saybrook, Connecticut



TP-1 Completed excavation.



TP-2 Completed excavation.

Representative Photographs  
Old Saybrook Town Dock  
Old Saybrook, Connecticut