

INVITATION TO BID
FOR
DESIGN AND FABRICATION SERVICES
FOR
STATE BOAT LAUNCH DOCK SYSTEMS

December 4, 2018

Key Dates:

Bids Due – January 4, 2019

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I. Introduction

Title: Design and Fabrication Services for State Boat Launch Dock Systems

Issuing Agency, Address and Contact:

Department of Energy and Environmental Protection (DEEP)
Bureau of Central Services
Engineering & Field Support Services Division
Engineering Unit
163 Great Hill Road
Portland, Connecticut 06480
Attention: David Cooley, Supervising Civil Engineer
Phone: (860) 424-4120 / Fax: (860) 344-2560

Floating Dock Locations:

Salmon River State Boat Launch, 117 E Haddam Moodus Road, East Haddam, CT
Haddam Meadows State Boat Launch, 2 Island Dock Road, Haddam, CT

Purpose:

The purpose of this Invitation to Bid (ITB) is to solicit a bid for design and fabrication services from a manufacturer with experience in the design and fabrication of floating dock systems. The manufacturer shall possess no less than 10 years of experience and be regularly engaged in the design, fabrication and installation of floating dock systems in northeastern waters and states.

Background:

The floating docks at the above mentioned State Boat Launch facilities are old, worn and in need of replacement using the latest Department standards as described herein.

Please see **Section II – Project Scope** for more specific information.

Attachments:

DEEP Fabrication Details For Standard 20' x8' Floating Dock (2 sheets)
Site Location Schematics (2 sheets)

II. Project Scope

Design:

Preliminary and Final submittals will be delivered for written approval by the DEEP Engineering Unit prior to fabrication. Final submittals shall be sealed and signed by a Professional Engineer registered in the State of Connecticut; additionally the Final submittals shall be supplied in electronic format using AutoCAD (compatible with the DEEP Engineering Unit standards). In addition, the Manufacturer shall plan to participate in two conference calls with representatives from the DEEP; one upon completion of a review of the project submittals and a second, as necessary, following alterations and corrections and prior to finalizing submittal acceptance and approval by DEEP representatives.

The following includes all materials, parts, hardware and related supplies for the complete fabrication and assembly of floating dock systems as per the following specifications.

PART 1 – GENERAL

1.1 SUMMARY

A. Number of docks, dimensions and delivery locations:

1. Design Four sizes and configurations of floating docks:

- a. Two (2) – 8 feet wide by 20 feet long
- b. Two (2) – 8 feet wide by 16 feet long
- c. Two (2) – 6 feet wide by 20 feet long
- d. Two (2) – 6 feet wide by 16 feet long

2. The docks shall be arranged and located as indicated below and attached to this ITB:

- a. Salmon River State Boat Launch in East Haddam – one (1) 8' x 16' landward plus one (1) 8' x 20' dock on the Upstream side and one (1) 6' x 16' landward plus one (1) 6' x 20' dock on the Downstream side.
- b. Haddam Meadows State Boat Launch in Haddam – one (1) 6' x 16' landward plus one (1) 6' x 20' dock on the Upstream side and one (1) 8' x 16' landward plus one (1) 8' x 20' dock on the Downstream side.
- c. In all cases, the location for the installation of pile guides shall be incorporated into the design based on the general location of the piles as illustrated on the site location schematics attached to this ITB.
- d. In all cases, bumpers shall be placed only on the ramp side of each dock section, in accordance with the layout.

1.2 PERFORMANCE REQUIREMENTS

A. Floating Dock Design Criteria

1. Design to resist a 400 pound concentrated vertical load at any point, and maintain a maximum cross slope of 2 percent from horizontal.
2. Wind Load: Uniform horizontal load from any direction equal to 25 psf.
3. Floatation/Freeboard:
 - a. Dead Load: 15 inches plus or minus 1 inch freeboard.
 - 1) Provide level float under dead load condition.
 - 2) Including the weight of the gangways on the most landward floating dock unit, as applicable.
 - b. Uniform Live Load (30 psf): 8 inches freeboard minimum.
4. Storm Conditions: Withstand storm conditions of up to 1.5 foot waves on a periodic but not continual basis.

B. System

1. Design floatation unit connections to provide a rigid system which will prevent units from racking or twisting in torsion, and deflecting without adjacent units deflecting.

C. Floatation Units

1. Design to maintain required buoyancy and freeboard even if structurally damaged.

1.3 SUBMITTALS

A. Shop Drawings:

1. Layout, sectional and detail drawings of sufficient scale for clarity of the following items.
 - a. Floating dock sections (landward, middle, waterward, as applicable)
 - b. Dead load and design load freeboard.
 - c. Floatation system.
 - d. Indicate relevant sizes of structural members, types of materials, finish, thickness, gage, anticipated location of hardware (especially external pile guides) and other pertinent information for complete evaluation of the system.

- B. Delegated-Design Submittal: For floating dock system indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer licensed in the State of Connecticut, responsible for their preparation.

- C. Qualification Data: For qualified floating dock manufacturer.

D. Certificates

1. Certificate of timber treatment
2. Material Safety Data Sheets (MSDS)
3. Material Compliance Sheets

E. Warranty

1. Manufacturers standard **five (5) year warranty** from date of successful installation stating system free from defects in materials and workmanship.
2. Minimum **ten (10) year warranty** from the manufacturer of the floatation units utilized in the fabrication of the docks.

1.4 QUALITY ASSURANCE

- A. Qualified Dock Manufacturer: Continuously engaged in design, production and manufacture of floating docks for a minimum of ten (10) years.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials in accordance with manufacturer's instructions.
- B. Dock manufacturer shall warranty the docks to be free from defects in materials and workmanship for a minimum period of five (5) years from the date of successful installation.
- C. Delivery
 - 1. All docks shall be delivered on site to their respective launches, and ready for installation no later than April 30, 2019.
 - 2. The dock manufacturer shall coordinate with the DEEP Engineering & Field Support Services staff prior to delivery.

PART 2 - PRODUCTS

2.1 FLOATING DOCKS

- A. Wood Framing: Southern Yellow Pine, grade #1 or better exterior
 - 1. Pressure Treatment: 0.60 pounds per cubic foot, minimum, CCA treatment.
- B. Wood Polymer Composite Deck: 100 percent reclaimed plastic and wood waste.
 - 1. Color: Gray
 - 2. Decking shall be installed recessed within structural framing. Spacing shall be as specified and sufficient to allow for expansion and contraction.
 - 3. Properties:
 - a. Tensile strength: 850 PSI, tested to ASTM D198
 - b. Shear strength: 600PSI, tested to ASTM D143
 - c. Modulus of rapture: 1500psi, tested to ASTM D4761
 - d. Modulus of elasticity: 175000psi, tested to ASTM D4761
 - e. Max. deflection: L/360
 - f. No decay, tested to ASTM D1413
 - g. Max. water absorption: 1.7% ASTM D1037
- C. Floatation Units. Maintenance free, fire-resistant construction
 - 1. Shell: ASTM D1248, high strength, high density, pre-molded polyethylene.
 - a. Minimum Wall Thicknesses

- 1) Top section: 0.100 inches.
 - 2) Bottom section (water contact surface): 0.250 inches.
 - b. Stress Cracking: ASTM D1693, 800 hours F50.
 - c. Color: Black.
2. Foam: Factory pre-formed expanded polystyrene.
 - a. Minimum Foam Density: 1.0 lbs per cubic foot prior to thermo-foaming process in accordance with Fed. Spec. HHI-524C, Type III foam.
 3. Spacing: Floatation units shall be placed to provide sufficient clearance for the installation of dock hardware in the field while minimizing spacing to mitigate the collection of debris after installation.
- D. Grounding Skids: Each floating dock unit shall be provided with two grounding skids running the length of the dock and floatation units. Grounding skids shall be constructed from treated wood framing material and secured using specified steel connectors.
- E. Steel Connectors, Brackets and Miscellaneous Components: ASTM A36, HDG.
- F. Bolts, Nuts and Washers: ASTM A325.
 1. Finish: HDG, ASTM A123 and/or ASTM A153. Minimum 2 ounces per square foot.
- G. Thru-Rods: ASTM A36 HDG.
- H. External Pile Guides (Heavy Duty)
 1. Hoops shall be HDG, 2" diameter, Schedule 40.
 - a. Twelve (12) external pile guides and required hardware shall be provided. Installed in the field by others.
 - b. Sufficient clearance and access shall be incorporated into the design and fabrication of the floating dock units in order to install the pile guides in the field.
 2. Roller Assembly
 - a. Roller shall be 6" long, ultra high molecular weight (UHMW) polyethylene with HDG fastening bracket
 - b. Fastening bracket shall be 3/8" HDG steel plate
 - c. Roller attachment shall be 3/4" diameter galvanized threaded rod with nut and nylon insert.
 3. Mounting plate with hoop fastening pipes
 - a. Mounting plate shall be HDG; 1/2" steel
 - b. Hoop fastening pipes shall be HDG, 1-1/2" diameter Schedule 80.

I. Dock Bumpers

1. Dock Bumper shall be non-marring white PVC compound; 3-3/4 inches minimum width and meet or exceed the following:
 - a. Durometer hardness A (+/-3), A-90
 - b. Instantaneous D-2240
 - c. 15 sec delay D-2240
 - d. Specific Gravity (+/-0.02), 1.40 D-792
 - e. Brittle Point Temp -26 C D-746
 - f. Unaged Dumbell: 30 mill
 - g. Tensile strength min. PSI 2250 D-638
 - h. 100% modulus, min PSI 1500 D-638
 - i. Elongation, min. % 300 D-638
 - j. Compression set % D-395
2. Anchor system: Dock bumper shall be manufactured with a recessed track both sides to accommodate a one-piece, stainless steel strip for fastening purposes. Stainless steel strip 5/8" wide and 1/8" thick shall be predrilled every 2" with a 1/4" hole. Dock bumper shall be fastened to dock using the stainless steel strips and stainless steel panhead square drive screws, 2".
3. Dock bumpers shall be installed vertically on ramp sides with 2-foot spacing. The length of the dock bumpers shall extend to cover the full height of the dock framing and be provided with two (2) 45 degree bevel cuts at each end.

J. Cleats

1. Materials: Malleable cast iron conforming to ASTM A47.
2. Length: 10 inches, minimum.
3. Quantity: Two (2) per dock unit and installed on the ramp side of the units.
4. Fasten with two (2) 3/8-inch diam. through bolts with recessed heads to prevent theft.

K. Lifting Hooks

1. Materials: Install two (2) 3/4" diameter HDG drop forged rings with shoulder in landward ends of landward dock, to aid in the installation and removal of the dock.

PART 3 - EXECUTION

Locations for the installation of pile guides shall be carefully planned as the piles at each site location are existing and the dock units will be replacements and installed by others. The Manufacturer shall provide enough flexibility in pile guide location as necessary to

ensure mating of piles and guides, and to ensure proper function under all anticipated water level conditions.

3.1 DELIVERY

1. All docks shall be delivered on site to their respective launches, and ready for installation no later than April 30, 2019 for installation.
2. The Manufacturer shall coordinate with the DEEP Engineering & Field Support Services Division upon completion to arrange for delivery and inspection.

III. Bid Requirements

Project Approach:

The Manufacturer shall clearly outline the firm's understanding of the project including planning, design, and other stages as required.

Experience and References:

The Manufacturer shall demonstrate experience with projects similar in scope and adhering to all the quality assurance and qualification requirements of this ITB. Include specific references with contact information.

Time and Cost:

Provide detailed cost and time breakdown based on **Section II Project Scope**. Provide a timeline/schedule for the work items in the **Section II Project Scope**. Include three (3) weeks review time for each submittal.

IV. Bid and Selection Process

All submissions to the ITB for Design and Fabrication Services for State Boat Launch Dock Systems must be in the possession of the DEEP Engineering Unit no later than **2:00pm on January 4, 2018**. Bidders must submit two (2) copies of their bid submittal.

No submissions will be accepted after this date and time.

Method of Evaluation:

An evaluation panel composed of DEEP representatives will review the bid submittals. The criteria requested under **Section III Bid Requirements** will be used to evaluate the submittals.

Interviews, if required, will be held on a mutually agreed upon date. Candidates must be represented in interviews by managers and senior staff that will be responsible for the project, if applicable.

Upon selection of a Manufacturer, a Purchase Order and Project Agreement outlining roles and responsibilities and financial terms and other conditions shall be negotiated between the selected Manufacturer and the DEEP.

The following represents the timeline for the ITB and the final selection of the Manufacturer for this work:

ITB and Selection Timeline:

ITB Formally Announced	December 4, 2018
Bids Due at 163 Great Hill Road, Portland, Connecticut	January 4, 2019 no later than 2:00PM local time

V. General Conditions

All bidders shall be willing to adhere to the following conditions and shall positively state this in the bid:

1. All bids in response to this Invitation to Bid are to be the property of the DEEP. All materials associated with this procurement process are subject to the terms of state laws defining freedom of information and privacy and all rules, regulations and interpretations resulting from those laws.
2. Any product, whether acceptable or unacceptable, developed under a contract awarded as a result of the ITB is to be the sole property of the DEEP.
3. Timing and sequence of events resulting from this ITB will ultimately be determined by the DEEP.
4. The bidder agrees that the bid will remain valid for a period of 90 days after the closing date for the submission and may be extended beyond that time by mutual agreement.
5. The DEEP may amend or cancel this ITB, prior to the due date and time, if the DEEP deems it to be necessary, appropriate or otherwise in the best interests of the DEEP. Failure to acknowledge receipt of amendments, in accordance with the instructions contained in the amendments, may result in a firm's bid not being considered.
6. The bidder must certify that the personnel identified in its response to this ITB will be the persons actually assigned to the project. Any additions, deletions or changes in personnel from the bid during the course of the project must be approved by the DEEP, with the exception of personnel who have terminated employment. Replacements for personnel who have terminated employment are subject to approval by the DEEP. At its discretion, DEEP may require the removal and replacement of any of the bidder's personnel who do not perform adequately, regardless of whether they were previously approved by the DEEP.
7. Any costs and expenses incurred by bidders in preparing or submitting bids are the sole responsibility of the bidder.
8. A bidder, if requested, must be prepared to present evidence of experience, ability, service facilities, and financial standing necessary to satisfactorily meet the requirements set forth or implied in the bid.
9. No additions or changes to the original bid will be allowed after submittal. While changes are not permitted, clarification of bids may be required by the DEEP at the bidder's sole cost and expense.
10. In some cases, bidders may have to give presentations or further explanation to the ITB screening committee.

11. The bidder represents and warrants that the bid is not made in connection with any other bidder and is in all respects fair and without collusion or fraud. The bidder further represents and warrants that they did not participate in any part of the ITB development process, had no knowledge of the specific contents of the ITB prior to its issuance, and that no agent, representative or employee of the DEEP participated directly in the bidder's submittal preparation.
12. All Responses to the ITB must conform to instruction. Failure to answer all questions or to follow the requested format may be considered appropriate cause for rejection of the response.
13. The DEEP shall assume no liability for payment of services under the terms of the contract until the successful bidder is notified that the contract has been accepted and approved by the DEEP. The contract may be amended only by means of a written instrument signed by the DEEP and the bidder.