

INVITATION TO BID
FOR
DESIGN AND FABRICATION SERVICES
FOR
GANGWAYS

January 10, 2020

Key Dates:

Bids Due – January 31, 2020

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I. Introduction

Title: Design and Fabrication Services for Gangways

Issuing Agency, Address and Contact:

Department of Energy and Environmental Protection (DEEP)
Bureau of Outdoor Recreation
Boating Division
Navigation & Boating Infrastructure Unit
P.O. Box 280
333 Ferry Road
Old Lyme, Connecticut 06371
Attention: R. Michael Payton
Phone: (860) 447-4347 / Fax: (860) 434-3501

Two Gangways needed at each of the following 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
Niantic River State Boat Launch - 2nd Street, Waterford, CT

One Gangway needed at each of the following locations:

Thames River State Boat Launch - 1 State Pier Road, New London, CT
KE Streeter Boat State Launch - 58 Fairview Avenue, Groton, 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 gangways. The manufacturer shall possess no less than 10 years of experience and be regularly engaged in the design and fabrication of gangways in northeastern waters and states.

Background:

The gangways 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. Photos of the existing gangways are available upon request to the Issuing Agency contact noted in Section I.

II. Project Scope

Design:

Preliminary and Final submittals will be delivered for written approval by the DEEP Boating Division prior to fabrication. Final submittals shall be sealed and signed by a Professional Engineer registered in the State of Connecticut. In addition, the Manufacturer shall plan to participate in two conference calls with representatives from the DEEP Navigation & Boating Infrastructure Unit; 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 gangways as per the following specifications.

I. Description

A. This section includes the manufacturing of all materials, parts, hardware, and related supplies for the complete assembly of gangway as per the following specifications:

1. Submittals

To insure that all design load conditions and other manufacturing criteria are met, submittal on the following four items are required.

- a. Detail drawings and sectional drawings of sufficient scale for clarity of the gangway. All drawings shall be accurately drawn to scale and completely dimensioned. Drawings shall indicate the relevant sizes of all structural members, type of material, finish, thickness, gauge and other pertinent information for complete evaluation of the gangways;
- b. The manufacturer shall submit evidence that they have designed and manufactured gangway systems continuously for no less than ten (10) years.

Submittals required after receipt of materials:

c. Certificates

- (1). Safety Data Sheets (SDS)
- (2). Material Compliance Sheets

Two copies submitted within seven days after manufacturer receipt of applicable materials.

Submitted after installation:

- d. The gangway manufacturer shall warrant that the gangways be free from defects in materials and workmanship for a period of five (5) years from the date of delivery.

B. Design and Load Conditions

1. Vertical Load

The deck and structural components shall be designed to support the dead load of the gangway plus a distributed live load of 50 pounds per square foot of deck area.

2. Safety Rail

a. Safety rails shall be designed and constructed for a concentrated load of 200 pounds applied at any point and in any direction along the top railing member;

b. The safety rail shall also be designed and constructed for a uniform load of 50 pounds per foot applied horizontally at the required safety rail height and a simultaneous uniform load of 100 pounds per foot applied vertically downward at the top of the safety rail;

c. The loading conditions shall not be applied simultaneously.

3. Handrail
 - a. Handrails shall be designed and constructed for a concentrated load of 200 pounds applied at any point and in any direction;
 - b. Handrails shall also be designed and constructed for a uniform load of 50 pounds per foot applied in any direction;
 - c. The concentrated and uniform loading conditions shall not be applied simultaneously.
4. Allowable Deflection
Deflection shall be a maximum of $L/180$ where L is the length of the gangway.
5. The deck and structural components shall be designed with a minimum safety factor on working stress as specified in the Aluminum Association's Specifications for Aluminum Structures for bridge-type structures.

C. Applicable Standards and Publications

1. Uniform Building Code.
2. American Welding Society Standard Code for Arc and Gas Welding in Building Construction.
3. American Society for Testing Materials, as identified herein.
4. The Aluminum Association, Inc., Design Standards, as identified herein.
5. ASCE Report #50 Small Craft Harbors 1969 edition as modified herein or current edition.
6. Americans with Disabilities Act (ADA).

II. Materials

A. Gangway Components

All gangway components unless otherwise stated shall be fabricated from aluminum alloy 6061-T6 extrusions, rolled shapes and plates;

B. Deck

Metal for gangway deck shall be ribbed 6061-T6 Aluminum Alloy.

C. Gangway Rollers

Rollers shall be a minimum of two (2), 2" diameter, 10" long cylindrical ultra high molecular weight polyethylene located at the floating dock end of the gangway, and fastened with threaded thru-rods and nuts with nylon inserts.

D. Transition Plate

Plate shall be non-skid aluminum alloy 6016-T6 with non-skid tape surface, designed such that no live load deflection can occur under the above-mentioned loads. Plate hinge rod shall be 1/2" diameter, aluminum rod with UHMW rod cover.

- E. Gangway Safety Railing
Metal for railing shall be approximately 2" outside diameter SCH 40 pipe, 6061-T6 Aluminum Alloy.
- F. Gangway Handrail
Handrail shall be pipe or tubing, 1-1/2" to 1-3/4" outside diameter 6061-T6 Aluminum alloy.

III. Construction

A. General

- 1. Welding
 - a. All welded components shall be fabricated by Gas Metal Arc Welding and reinforced, as necessary;
 - b. All connections shall be welded on the inside and outside, and then ground smooth.
- 2. All pipes or tubes shall be capped.
- 3. All metal pieces shall be supplied full length. Splices are not acceptable.
- 4. All posts shall be reinforced with gusset plates if welded connections are required.

B. Decking

- 1. Gangway ramp surface shall be 12 feet long and 4 feet wide, width must allow for safety rail and handrail requirements as described in Sections E & F below;
- 2. Decking shall be slip resistant, aluminum alloy 6061-T6 extruded and have a slight ribbed surface;
- 3. Decking slats shall be secured perpendicular to the length of the gangway with not more than 3/8" between slats;
- 4. Each piece of decking shall be welded to all supporting members.

C. Gangway to Landward Connection

- 1. At the landward end of the gangway the gangway shall have two connections or "tabs". The inside spacing between the tabs shall be 48", the tabs shall be no less than 3/4" thick, extend 2 - 1/4" from the gangway, and have a clearance of no less than 2" on either side to allow for connection by bolts to each respective concrete platform tab. Each tab shall also have a single hole located - on center - 1" laterally from the gangway and 1 - 1/2" from the top of the gangway. Each hole shall have a minimum 3/4" wide flange, and a diameter which can snugly fit an inserted nylon bushing with a 3/4" diameter bolt for connection the corresponding two landward tabs.

D. Gangway to Courtesy Dock

- 1. Transition Plate
 - a. At the bottom end of the gangway a transition plate shall be provided;

- b. The transition plate shall have dimensions of 18" x 48", and a 5/16" thickness;
 - c. The transition plate shall have a one-piece non-skid tape surface;
 - d. The transition plate shall be fastened at the bottom end of the gangway using a piano hinge design, and the lower end of the transition plate shall be capable of sliding on a resting plate mounted on the deck surface of the courtesy dock;
 - e. The lower end of the transition plate shall have an aluminum rod welded full-length along the width of the plate with a UHMW polyethylene rod cover to facilitate smooth, uniform sliding.
2. Rollers
- a. Gangway shall roll at its lower end on top of the courtesy dock;
 - b. There shall be not less than two (2), 2" diameter x 10" long UHMW polyethylene rollers per gangway and attached using threaded thru-rods and nuts with nylon inserts.

E. Safety Rails

- 1. Provide aluminum pipe or tube safety rails on each side of the gangway, including; posts, top rail, intermediate rail, and any necessary diagonal supports.
- 2. Dimension Requirements
 - a. Clear span between safety rail, minimum 48";
 - b. Top rail shall be 42" above deck;
 - c. Safety rails shall each extend at least 12" beyond each end of the ramp surface;
 - d. Safety rails shall be turned downward or be continuous until they attach to another part of the railing;
- 3. Safety Rails shall be attached using bolts and nuts with nylon inserts.

F. Handrails

- 1. Inside of the safety rail shall be a handrail, constructed as required in section II, F above, and 2" from the side of the gangway.
- 2. Dimension Requirements
 - a. Handrail shall be 34" above deck;
 - b. Handrails shall be continuous and mounted 1-2" inside of the safety rail;
 - c. Handrails shall extend at least 12" beyond each end of the ramp surface;

- d. Ends of each handrail shall be turned downward or curved until they attach to another part of railing;
- e. All pipe or tube ends shall be capped.

3. Handrails shall be attached to safety rail using handrail brackets.

G. Edge Protection

On the inside of the vertical railing members there shall be a continuous strip of extruded aluminum to act as a toe curb.

- 1. The bottom of the toe curb shall be no more than 1" above the deck surface;
- 2. The top of this strip or toe curb shall be approximately 4" above the deck surface;
- 3. The toe curb shall be welded to supports and thick enough to resist deformation;
NOTE: The gangway will be picked up using four "J" hooks which will be attached to the toe curb and/or gangway frame.

IV. Execution

A. Delivery

- 1. All gangways shall be delivered to the DEEP Eastern District HQ located at 209 Hebron Avenue, Marlborough Connecticut 06447 no later than April 1, 2020.
- 2. The Manufacturer shall coordinate with the DEEP Navigation & Boating Infrastructure Unit 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**.

IV. Bid and Selection Process

All submissions to the ITB for Design and Fabrication Services for Gangways must be in the possession of the DEEP Navigation & Boating Infrastructure Unit no later than **2:00pm on January 31, 2020**. 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	January 10, 2020
Bids Due at 333 Ferry Road, Old Lyme, Connecticut	January 31, 2020 no later than 2:00 PM 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.