

EMERSON BAY & HATTIE ELSTON RAMPS
COURTESY DOCKS
DICKINSON COUNTY, IOWA
PROJECT NUMBER: 20-01-30-16

April 7, 2020

This Addendum is issued to modify, explain or correct the original Drawings and Specifications, and is hereby made a part of the Contract Documents. Please attach this Addendum to the Project Manual in your possession. Insert the number and issue date of this Addendum in the blank space provided on the Proposal Form.

Plans:

- A. Sheet D.01 has been superseded by the attached sheet D.01
- B. Sheet D.02 has been superseded by the attached sheet D.02

Specifications:

- A. Section 02489 has been superseded with the attached Section 02489

Site Note:

- A. The water depth at the end of dock for Emerson Bay is approximately 7 feet.
- B. The water depth at the end of dock for Hattie Elston is approximately 8 feet.

PART 1 - GENERAL

1.01 SUMMARY:

- A. Section Includes: The provision, erection and installation of ADA compliant, commercial quality, removable, floating boat docks, as shown on the Drawings and as specified, the extents of which is also shown herein.
 - 1. Manufacturer's standard components may be used providing components, accessories, and complete structure conforms to design appearance shown and to specified requirements.
- B. Related Sections: Drawings and General Provisions of the Contract.
- C. Codes and Standards: ANSI A117.1 - Specifications for making buildings and facilities accessible to, and usable by, physically handicapped people.

1.02 DESIGN REQUIREMENTS:

- A. Structural Design: Docks shall be so designed as to prevent any torsional displacement of the dock surface.
 - 1. Vertical Load: The design of the assembled structural frame shall address the combination of dead and live loads, to be no less than 40 psf. and maintain a freeboard of approximately twenty-four inches.
 - a. Dead Load consisting of the entire weight of all components, including but not necessarily limited to the docks, add-on section and access ramps.
 - b. Live Load consisting of no less than 30 pounds per square-foot.
 - c. Combined dead and live loads shall not be less than 55 psf for docks. At that combined load of 55 psf, maintain a freeboard of approximately 18" to 24".
 - 2. Horizontal Load: Uniform wind load from any direction, 15 psf assuming 100 percent boat occupancy or maximum well dimension, whichever is greatest. Profile height of boats to be as recommended by Manual 50 ASCE Journal of the Waterways and Harbors Division, Page 106, dated 1969 or latest subsequent edition or replacement publication.
 - 3. Bridges and Ramps: Design for a dead load of 50 psf.
 - 4. Handrails: Provide handrails capable of withstanding a horizontal thrust of 50 pounds per lineal foot loading applied at the top of the railing in accordance with Section 3.1.2 of the American Building Code.

1.03 SUBMITTALS:

- A. Provide the submittal required below for verification that the material intended to be used to construct the system is in accordance with the requirements. Do not purchase, fabricate or install any material, components or system until approval of the submittal review is received.
 - 1. If a Manufacturer's standard system, intended to be provided by the bidding contractor, does not meet the requirements and this manufacturer does not provide a higher quality system, promptly provide submittals for approval of another system from another manufacturer which will be acceptable to the DNR. This will be at no additional cost to the DNR.

- B. Product Data: Prior to procurement, submit full information on all materials proposed for use in the work of this section for review.
 - 1. Purchase or install no material until approved.
 - 2. Submit manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - 3. Provide manufacturer's site-specific anchoring recommendations which, when approved, will become part of the installation procedures.

- C. Shop Drawings: Furnish erection drawings showing the complete structure including docks and ramps, support stand, mounts/brackets, handrails and installation details of all components to clearly indicate proper assembly of components, with supporting engineering calculations.
 - 1. Drawings and calculations shall be stamped and certified by a structural engineer registered in the state of Iowa.
 - 2. Drawings must be scaled drawings showing all pertinent dimensions and material information for each view, section and detail to the satisfaction of the reviewing authority.
 - 3. Promptly resubmit corrected drawings for submitted drawings that have been rejected.

- C. Quality Control Submittals:
 - 1. Design Data: Submit design data.
 - a. Where materials or fabrications are indicated to comply with certain requirements for design loadings, include structural computation, material properties and other information needed for structural analysis.

1.04 QUALITY ASSURANCE:

- A. Qualification of Workers: Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the requirements and the methods needed for proper performance of the work of this section.
- B. Regulatory Requirements: Comply with all pertinent codes and regulations of governmental agencies having jurisdiction as well as all requirements listed or included herein.
- C. Fabrication Criteria: Provide structural frame as produced by a manufacturer who is regularly engaged in fabrication and erection of systems of the type indicated.

1.05 DELIVERY, STORAGE, AND HANDLING:

- A. Deliver each dock and ramp complete so that it can be immediately connected to any other dock or ramp ordered and placed in the water for use.

1.06 WARRANTY:

- A. The manufacturer shall guarantee the docks to be free from defects in material and workmanship under normal use and service for a period of two years from the date of delivery to the Department. Within this period, the manufacturer will furnish without cost to the Department any part, assembly or portion thereof found to be defective.
- B. The manufacturer will not be held liable for any material or installed parts which have been subject to misuse, alteration or accident after delivery has been made to the Department.

PART 2 - PRODUCTS

2.01 MANUFACTURERS:

- A. Subject to compliance with requirements, manufacturers of dock systems, which may be incorporated in the work, include but are not limited to, the following:
 - 1. Maricorp U.S., 27882 State Hwy 39 – Suite 1, Shell Knob, MO 65747. Tel # 877-858-3625
 - 2. Shoremaster, PO Box 358, Fergus Fall, MN 56537. Tel # 800-328-8945
 - 3. VW Docks, 2704 16th St., Spirit Lake, IA 51360. Tel # 800-893-6257
 - 4. Or equal subject to compliance as above.

2.02 MATERIALS:

- A. Structural: Provide substructure in accordance with AISC requirements for A-36 structural steel shapes and A-526 carbon steel shapes. Provide lighter gauge member as follows:
 - 1. Provide steel hot-dipped galvanized light gauge members in accordance with ASTM A-123 meeting the specifications of AISI for structural shapes.

- B. Decking: Provide decking able to withstand prolonged exposure to sunlight, frequent wetting and drying, severe abrasion by scuffing, not peel off or crack, and with nonskid and easily cleaned surfaces. Decking joints shall run perpendicular to the long axis of the dock and shall expose no gap wider than one-half inch.
1. Wood: Provide wood deck and bumper rails consisting of 2 x 6 and/or 2 x 8 planks of pine or Douglas fir, Grade No. 1 or better treated with pentachlorophenol at .6 pounds/cubic foot minimum or with CCA (chromated copper arsenate) AWWA, standard LP-22 water-borne preservatives.
 2. Metal: Provide metal decks consisting of galvanized steel, 18-gauge minimum thickness or mill aluminum extruded planks, aluminum series 5000 or 6000. Galvanizing shall be 1.25 oz. per square foot commercial grade.
 3. Concrete decking: Provide 24" x 24" x 1.5" reinforced concrete pavers with broomed finish that are held in place by an acceptable caulk or adhesive.
 4. Other: Provide bids for use of the material specified above only. The approval of other decking material may be considered for substitution upon receipt of submittals. Do not assume that any specific material not listed will be approved until it has been approved.
- C. Connections:
1. Connections shall not protrude above face of dock.
 2. Connections shall be a combination of bolts and welds. Bolted connections shall be in accordance with standard A.I.S.C. specifications. Welds shall be executed in accordance with the provisions of the American Welding Society Specifications.
 3. Provide connections so that add-on sections of docks can be added to the floating dock using piano hinge pins (one-inch minimum) through horizontal heavy-duty (full width and depth) connection sleeves (hinges), welded or bolted to the substructure.
- D. Bridge, Ramps and handrails: Provide bridges and ramps of the size shown on the drawing and as specified herein, designed for a dead load plus live load of 50 pounds per square foot.
1. Provide handrails for all ramps or bridges over four feet in length. The top rail shall be 42 inches above the walkway and an intermediate rail shall be placed 21 inches above the walkway.
 2. Connect the bridge to the dock by pin connection, or other approved device and the shore end shall have an approved suitable metal skid.
- E. Flotation: The environmentally safe float drums, 0.150" thick, high density polyethylene seamless shell, injected with polystyrene, shall be of a design approved by the US Army Corps of Engineers.
- F. Rub Rail: Provide 2 x 12-inch treated lumber rub rail, bolted or clamped to the dock. Fasten cast vinyl strips or bumpers to the wood rub rails with stainless steel or zinc plated screws to prevent boats from coming in contact with the wood or metal.

1. Provide vinyl strips or bumpers of a design so that, when screwed to the wood rub rails, the screw heads will not scrape boats.
 2. Place rub rails on both sides and end of the dock (end sections) and extend the full length. Also provide corner bumper protection.
 3. Also provide bumper protection to support stands and mount/brackets on the outside of the dock structure, if dock and add-on sections have those.
- H. Dock Cleats: Provide cleats molded from aluminum or steel, but not fabricated from rod and plate. Cleats shall be ten inches long and placed at a maximum eight foot spacing on both sides of dock. All cleats shall be bolted to the structural frame.
- I. Anchoring: Accomplish with a helical earth anchor dead man system, spud [poles, or stand off type system. Provide Spud poles of 6" O.D. Schedule 40 hot dipped galvanized.
1. Follow manufacturer's approved site-specific anchoring recommendations.
 2. To accommodate driven-in place pilings, or spud poles, collars shall be built internal to the frame so that spud poles will not come in contact with boats.

PART 3 - EXECUTION

3.01 INSTALLATION:

- A. Each dock and ramp shall be delivered complete so that it can be immediately connected to any other dock or ramp ordered and placed in the water for use.
- B. The installation shall be conducted in accordance with the manufacturer's approved instructions

END OF SECTION 02489