



RIVERHEAD WATER DISTRICT

**** ADDENDUM NO. 1 ****
FEBRUARY 1, 2017

Project No.: RDWD 16-51
Project Name: Installation of Water Mains & Appurtenances
Old Orchard Subdivision
Bid Due Date: Thursday, February 9, 2017, 2:00 PM
Description: Specification Modifications

MODIFICATIONS:

- 1. The hydraulic control valve type and model has been modified. Remove specification *Section 402324 – Valves and Valve Accessories* in its entirety and replace with Section 402324 – *Valves and Valve Accessories, Issue date 2-1-2017.*

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This addendum forms a part of the contract documents and modifies the original bidding documents. A copy of this signed addendum must be included with the bid proposal.

Name: _____
(Please Print)

Signature: _____

Company: _____

Date: _____

SECTION 402324 - VALVES AND VALVE ACCESSORIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Hydraulic Control Valves

1.02 REFERENCES

- A. ASME/ANSI B16.1 - Cast Iron Pipe Flanges and Flanged Fittings
- B. ASME/ANSI B16.34 - 2004 Valves Flanged, Threaded and Welding End
- C. ASTM A126 - Grey Iron Castings for Valves, Flanges and Pipe Fittings
- D. ASTM A536 - Ductile Iron Castings
- E. AWWA C550 - Protective Epoxy Interior Coatings for Valves and Hydrants
- F. ANSI/NSF Standard 61, Drinking Water System Components
- G. AWWA C530 - Pilot Operated Control Valves

1.03 SUBMITTALS

- A. Submit product data under provisions of Section 013300.
- B. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- C. Submit the following:
 - 1. Technical descriptive data for the valves showing model number, size, capacity, weight, materials, accessories and other similar information. Catalog cuts are acceptable if they contain the necessary information.
 - 2. Storage, handling and installation instructions for the valves.
 - 3. Warranty Certificate prepared in accordance with paragraph 1.03 herein.
- D. Operations and Maintenance Manuals.

1.04 PROJECT RECORD DOCUMENTS

- A. Accurately record actual locations of valves, connections, and invert elevations.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with the local water utility company requirements.
- B. Valves: Manufacturer's name and pressure rating marked on valve body.
- C. All brass valves and fittings installed on a potable water supply line shall be made of "low-lead" materials and have a maximum lead content of 0.25 percent by weight. All low lead brass fittings shall be stamped or embossed with a mark indicating that the product is manufactured from low-lead alloys.
- D. Consideration will only be given to suppliers who can demonstrate that their valve complies with these specifications having had successful and documented experience of the size, quality,

performance and reliability to that specified, and who can successfully demonstrate this criteria to the Engineer.

- E. Each manufacturer shall have at least ten (10) years of experience in the design and manufacture of the specified valve.

1.06 WARRANTY

- A. The complete valve shall carry a three-year warranty from date of shipment from the factory. All startup services shall be performed by a factory authorized sales and service agent, who shall maintain a full-time control valve technician, with a fully stocked service van, able to accommodate any 24-hour emergency service requirement.
- B. The authorized factory sales and service agent shall be available to the owner for a separate service training session.
- C. The authorized factory sales and service agent shall dispatch a control valve technician to provide a one year annual inspection of the application by which the valve will be inspected and maintained to permit optimal performance.
- D. Provide a Warranty Certificate typed on company letterhead and signed by an authorized officer of the manufacturer.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Sections 016100 and 016500.
- B. Deliver and store valves in shipping containers with labeling in place.

1.08 FIELD SERVICES

- A. Provide the following field services:
 - 1. One (1) day totaling eight (8) hours for the pressure reducing - pressure sustaining valve manufacturer. During these visits, the representative shall check the installation, make all necessary adjustments, and otherwise place the specified valve into permanent operation. As part of startup activities, the representative shall check the terminal connections and the specific work of the Contractor. Before substantial completion, provide operation and maintenance instruction to the Owner. A complete review of the Operations and Maintenance Manual for the pressure reducing - pressure sustaining valve shall be presented at this time.

1.09 SERVICE CONDITIONS

- A. All components of the control instruments shall be designed for continuous duty.
- B. Provisions shall be made for adjustments or replacements of all parts.

PART 2 - PRODUCTS

2.01 HYDRAULIC CONTROL VALVES

- A. Pressure Reducing - Pressure Sustaining Valve
 - 1. The pressure reducing pressure sustaining control valve shall be the CLA-VAL model 92-01, hydraulically operated, pilot actuated automatic control valve, or approved equal. The control valve sizes shall be as indicated on the drawings.

2. The valve shall be designed to open to maintain a downstream pressure (setpoint) and to open on a rising inlet pressure (setpoint). The valve shall close to sustain an upstream pressure (setpoint).
3. The valve shall open gradually to prevent surges when the downstream pressure reaches its minimum pressure setpoint or when inlet pressure rises above its setpoint. The valve shall close quickly when the upstream pressure drops below its minimum pressure setpoint.
4. Each main valve shall consist of three (3) components: ATSM A536 ductile iron body with seat; ATSM A536 ductile iron cover and bearings; and nylon reinforced Buna-N diaphragm and assembly including stainless steel stem, nut, and spring.
5. Pilot and Accessories
 - a. Pilot tubes shall be copper with bronze fittings.
 - b. Pilot valve shall be ASTM B62 bronze.
 - c. Pressure Adjustment Range 15 – 75 psi and 20-125 psi.
6. Each valve shall have the following attributes and accessories:
 - a. Globe style
 - b. Epoxy coated.
 - c. Stainless Steel trim
 - d. 150 lb. flanged connections
 - e. Isolation ball valves
 - f. Pressure gauge upstream and downstream: 4 1/2" glycerin-filled, 316SS bourden tube, Ashcroft, type 1379 or equal, two (2) required per valve.
 - g. Valve position indicator

PART 3 - EXECUTION

3.01 GENERAL

- A. Install control valves and components in accordance with the written and/or verbal instructions provided by the manufacturer.
- B. All components shall be fully tested and verified for service by the manufacturer. Each manufacturer shall provide a MSR.

3.02 INSTALLATION

- A. All valves and valve accessories shall be installed by workers thoroughly experienced in such work and all valve work shall be properly supported and aligned and present a neat and workmanlike appearance. All other required temporary or permanent supports for the valves shall be included in this contract to the approval of the Engineer.
- B. Secure all floor stands to support members using stainless steel hardware. Field touchup floor stands after installation.
- C. Set valves in a plumb or level position, as applicable.
- D. Install check valves for proper direction of flow. Adjust cushion chamber check valve to prevent water hammer at service conditions.
- E. Assemble flanged joints by sequencing bolt tightening to make initial contact of flanges and gaskets as flat and parallel as possible. Use suitable lubricants on bolt threads. Tighten bolts gradually and uniformly with a torque wrench.
- F. All flanged valves shall be furnished and installed with a Style 128 flange adapter by Dresser Industries, Inc. or equal.

- G. Before each valve is installed, pipe lines should be flushed of all chips, scale, and foreign matter.
- H. Properly use dielectric fittings and gaskets with dissimilar metals to insure that galvanic and/or electrolytic action does not take place.

3.03 INSPECTION, HANDLING AND STORAGE

- A. Inspection - All valves and accessories are subject to inspection by the Engineer at the point of delivery for manufacturer, direction of opening, freedom of operation, tightness of pressure-containing bolt, cleanliness of valve ports and especially seating surfaces, handling damage, cracks and any other damage.
- B. Valves found to be either defective or damaged shall be rejected and immediately removed from the job site.
- C. Handling - All valves shall be loaded and unloaded by lifting with hoists or skidding under control with ropes in order to avoid shock or damage. Under no circumstances shall valves and boxes be dropped.
- D. Storage - Valves, joint accessories and other appurtenances, if stored, shall be kept safe from damage. The interior of the valve and the joint accessories shall be kept free from dirt or foreign matter at all times.
- E. Perform operating tests on valves as per the manufacturers recommendations as required to determine they are in satisfactory operating condition and do not leak. All valves upon completion of the work shall be checked to determine they are in an open position, unless otherwise indicated.

END OF SECTION