

SECTION 331613.13 – POTABLE WATER STORAGE TANKS

Scope:

For the Contract Sum stipulated in the bid sheet, contractor will design, furnish, fabricate, deliver, and erect on foundation provided by the Contractor at the job site, Whitfield County, Georgia, one (1) 1,000,000 gallon capacity water storage reservoir 80' in diameter, with knuckle cone roof in compliance with AWWA Standard D-100-96 (or Current Edition). For bidding purposes, foundation of the tank should be based on an assumed soil bearing of 3,500 psf (See Exhibit "C" if soil bearing is less than 3,500 psf).

Submittals:

Contractor shall submit to Owner within thirty days of site selection:

- A. Soil investigation by a Georgia registered professional geotechnical engineer (only where required by the Owner) confirming the bearing capacity of soils at the selected site.
- B. Contractor shall submit detailed shop drawings stamped by a Georgia registered professional engineer to Owner for his review.
- C. Name and qualifications of proposed water storage tank subcontractor for review and approval by Owner. Tank subcontractor must have a minimum of five years experience constructing welded steel potable water storage tanks.

Products:

The following items and accessories shall be included with each tank in the scope of work to be performed by the Contractor:

- A. Two (2) 24" diameter shell manholes
- B. One (1) 24" x 24" roof hatch
- C. One (1) outside ladder with OSHA approved safety device
- D. One (1) inside ladder with OSHA approved safety device
- E. One (1) 24" roof vent and hatch (with screening)
- F. One (1) 12" diameter inside overflow piped to drain with concrete splash pad installed at end of overflow pipe. Overflow pipe to have flap valve installed at end.
- G. Two (2) 12" diameter inlet/outlet connection in tank bottom (90 degree bend, MJ connection, with thrust blocking)
- H. One (1) Tideflex Mixing System as provided by Charles Finch Valve Company
- I. One (1) level indicator
- J. One (1) tap in vault on tank bottom with pressure transducer creating a 5 to 20 mA signal for remote tank level monitoring
- K. Foundation based on an assumed soil bearing of 3,500 psf (See Exhibit "C" if soil bearing is less than 3,500 psf)
- L. One (1) vault in foundation ring wall
- M. One (1) 12" altitude valve to prevent tank overflow installed in a 6'-0" dia. reinforced concrete manhole
- N. Tank painting in accordance with AWWA Standard D102 – 97 (or current edition)
 - (1) Inside: Polyamide Epoxy - TNEMEC, Induron Coatings, Inc. or equal
 - a. Surface Preparation: Surface preparation and painting of interior surfaces shall be done in the field. All surfaces shall be prepared in accordance with

SSPC-SP 10 Near White Blast Cleaning. Prepared surfaces shall be painted within eight hours of surface preparation.

- . Interior Primer: Induron PE-54 Epoxy Primer, TNEMEC (20-1255) or equal applied at a rate to achieve 3.0 to 5.0 dry mils. Color: Tan.
- . Weld Seam Treatment: All weld seams, sharp edges, ladders, and other difficult to reach areas shall receive one coat of Induron PE-54 Epoxy, TNEMEC (20 – who 2) or equal applied at a rate to achieve 2.0 to 4.0 dry mils. Color: Gray.
- . Interior Intermediate: Induron PE-54 Epoxy, TNEMEC (20 – AA90) or equal applied at a rate to achieve 4.0 to 6.0 dry mils. Color: Gray.
- . Finish: Induron PE-54 Epoxy, TNEMEC (20 – who 2) or equal applied at a rate to achieve 4.0 to 6.0 dry mils. Color: White.

(0) Outside: Aliphatic Polyurethane – TNEMEC, Induron Coatings, or equal

- . Surface Preparation: In the shop or field, all surfaces shall be prepared in accordance with SSPC-SP 6 Commercial Blast Cleaning.
- . Primer: Induron Armorguard P-14 Epoxy Primer, TNEMEC (20 – 1255) or equal applied at a rate to achieve 3.0 to 5.0 dry mils. Color: Tan.
- . Intermediate: Induron Armorguard Epoxy, TNEMEC (Series 66) or equal applied at a rate to achieve 3.0 to 5.0 dry mils. Color: As selected.
- . Base Coat: Induron Indurethane 5500 SG, TNEMEC (Series 74) or equal applied at a rate to achieve 1.5 to 2.5 dry mils. Color: As selected.
- . Clear Coat: Induron Inderethane 5000 Clear Coat, TNEMEC (Series 76) or equal applied at a rate to achieve 1.0 – 2.0 dry mils.

Implementation:

- . Contractor work also includes site improvement work, rock excavation, dewatering, 8' fence around site with a 16' double gate at the access road, all piping, valves and fittings, electrical; and all other items not listed above to provide for a working potable water storage tank.
- . Contractor shall install access road to tank site including a 12' wide access road with all required grade work 8 inches of aggregate base with sufficient fines to provide for a smooth compacted traveling surface. Road work may require some drainage tile installation. All Contractors shall provide an allowance of \$10,000 for storm drain work as shown on the bid sheet. If additional drainage tile work is required, this will be paid for via a change order. If less than \$10,000 is required, Owner will receive a credit.
- . Tank design, erection, testing, and inspection will be in accordance with AWWA Standard D100—97 (basic) for a specific gravity of 1.0, 100 MPH wind load and Zone 2 seismic.
- . The fabricated materials will be delivered to the job site by truck. Contractor will provide transportation and unloading. Contractor will utilize one (1) move-in of men and equipment for continuous erection to a preplanned schedule using Contractor's normal working hours without undue delays.
- . The tank shell will be tested under hydrostatic load in accordance with AWWA D100-96 (or current edition). The tank bottom will be left broom clean by the Contractor.
- . The water storage tank will be disinfected in accordance with AWWA Standard for Disinfection of Water-Storage Facilities, AWWA C652-02 (or Current Edition).

END OF SECTION