



**TOWN OF**  
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**INVITATION FOR BIDS**

**FORGE ROAD TANK AND SAUNDERSTOWN WATER TANK  
MIXING PROJECT  
DEPARTMENT OF WATER SUPPLY**

**ADDENDUM #2**

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**PLEASE REVIEW THE FOLLOWING CHANGES CAREFULLY:**

- All relative dates for this Invitation for Bids remain the same.
- See responses to questions received below:
  - Question 1. What is the anticipated start date for this project?
  - Response 1. It is expected that the project be completed and tanks back in service no later than May 26, 2023.
  - Question 2. Please confirm a bid bond is not required for this project.
  - Response 2. A Bid Bond is NOT required for this project.

*Posted: November 23, 2022*

- Question 3. Will the tanks be drained for the installation of the mixer? If so, is there a limit on how long they can be out of service?
- Response 3. Equipment shall be installed while water remains in each tank. The tanks shall be isolated and taken out of service during and subsequent to the installation of equipment until acceptable test results are received. See specifications Section 01010, Part 3, paragraph 3.1 B.
- Question 4. Will we need to touch up any coatings that are damaged during this work? If so, please provide the paint spec for the same.
- Response 4. If coatings are damaged during the mixing system installation, they shall be repaired at the contractors expense in accordance with the attached specifications Section 05565 – Cleaning and Painting Steel Water Storage Tanks.
- Question 5. Please confirm that the owner will be completing the validation testing for this project.
- Response 5. The Contractor shall be responsible for performance validation testing per Specifications Section 11228, Part 2, paragraph 2.1 Performance.

**END OF ADDENDUM #2**

## SECTION 05565

### CLEANING AND PAINTING STEEL WATER STORAGE TANKS

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Repair, grind, clean, paint, test and disinfect the steel water storage tanks of the types and sizes and in the locations as specified, including welding, grinding, scraping, and all testing. The work can generally be described as follows:
  - 1. All Interior Tank Surfaces and Appurtenances in Non-Water Contact Damaged during the Installation of the Mixing System - All interior surfaces not in contact with water shall be spot cleaned and power tooled to an SSPC-SP11 bare metal surface. Cleaned areas shall be primed prior to recoating the entire surface with two coats of new paint (primer, intermediate coat, and final coat) as described herein.
  - 2. All Exterior Tank Surfaces and Appurtenances Damaged during the Installation of the Mixing System - All exterior surfaces not in contact with water shall be spot cleaned and power tooled to an SSPC-SP11 bare metal surface. Cleaned areas shall be primed prior to recoating the surface with four coats of new paint (1 primer, 1 intermediate epoxy coat, 1 intermediate urethane coat, and 1 final coat) as described herein.

##### 1.2 RELATED SECTIONS

- A. Section 11228 – Potable Water Tank Submersible Mixing System

##### 1.3 REFERENCES

- A. 29 CFR 1926.62 - OSHA; The Interim Final Rule for Lead Exposure in Construction.
- B. 40 CFR Part 50 Appendix G - OSHA, National Ambient Air Quality Standard for Lead.
- C. 40 CFR Part 261 - USEPA Identification and Listing of Hazardous Waste.
- D. 40 CFR Part 262 - USEPA Standards Applicable to Generators of Hazardous Waste.
- E. 40 CFR Part 263 - USEPA Standards Applicable to Transporters of Hazardous Waste.
- F. 40 CFR Part 268 - USEPA Land Disposal Restrictions.
- G. USDOT 49 CFR Parts 173, 178 and 179.
- H. ANSI/ASC Z9.4 - Exhaust Systems – Abrasive Blasting Operations – Ventilation and Safe Practice.
- I. I. AWWA C652-92 - Disinfection of Water Storage Facilities.
- J. J. AWWA D102-97 - Coating Steel Water Storage Tanks.
- K. NSF Standard 61 Drinking Water System Components - Health Effects.
- L. OSHA 3142 – Lead in Construction.

- M. SSPC Guide 6 - Guide for Containing Debris Generated during Paint Removal Operations.
- N. SSPC Guide 7 - Guide for Disposal of Lead-Contaminated Surface Preparation Debris.
- O. SSPC SP6/NACE No. 4 - Commercial Blast Cleaning.
- P. SSPC SP10/NACE No. 2 - Near-White Blast Cleaning.
- Q. SSPC Publication 94-20 - Industrial Lead Paint Removal Handbook, Vol I and II.
- R. SSPC PA1 - Shop, Field & Maintenance Painting.
- S. SSPC PA2 - Measurement of Dry Paint Thickness with Magnetic Gauges.

#### 1.4 SUBMITTALS

- A. Submit Certification of Compliance from paint manufacturer stating that paint systems furnished for the project are suitable for the intended application and that the interior coatings are in compliance with NSF Standard 61.
- B. The application methods and product information for the interior and exterior paint systems including:
  - 1. Mixing instructions
  - 2. Thinning
  - 3. Percent solids
  - 4. Surface preparation requirements
  - 5. Spreading rate
  - 6. Weight
  - 7. Curing time at 50°F, 60°F, 70°F and 80°F, and 50 percent relative humidity
  - 8. Pot life
  - 9. Safety precautions
  - 10. Color chart for the exterior paint system.
- C. Submit Exterior and Interior Coatings ASTM Performance Data and other information as specified.
- D. USEPA Form 8700-22 must be completed and returned to the Owner for record keeping.

#### 1.5 WORKMANSHIP AND MATERIALS

- A. All work and material shall be the best of its kind and shall conform to AWWA D102 "Coating Steel Water Storage Tanks" and ANSI A159.1, Section II, Surface Preparation Specifications" as approved by the Steel Structures Painting Council.

#### 1.6 QUALITY ASSURANCE

- A. All materials furnished and all work accomplished shall be of a quality and character required by the Specifications and by good practice.
- B. The Contractor shall have five (5) years previous experience in the removal of coatings from and repainting of steel water tanks of similar design and have successfully coated 10 water storage tanks of similar size and complexity in the New England Region in the last 5 years.

1.7 ENVIRONMENTAL CONDITIONS

- A. Apply coating materials under conditions as follows:
  - 1. Air temperature shall not be below 35 degrees F (2 degrees C) or above 110 degrees F (43 degrees C).
  - 2. Refer to specific product information sheets for minimum surface temperature requirements. Surface temperatures shall be at least 5 degrees F (15 degrees C) above dew point and in a rising mode. Application of the coating system shall be in strict accordance with the manufacturers recommendations and instructions.
  - 3. Relative humidity shall be no higher than 85% or as established by the coatings printed product data sheet.
  - 4. For exterior spray application, wind velocity shall be less than 15 mph (25 kph).
  - 5. Atmosphere shall be relatively free of airborne dust.
- B. No painting shall take place if the relative ambient humidity exceeds 85%.

1.8 WARRANTY

- A. The contractor agrees to make good, without cost to the Owner, any defects in the work or parts of the work furnished or built by him, and any damages due to faulty workmanship, on his part or due to faulty imperfect materials or equipment furnished by him, which may appear within one year from the Date of Substantial Completion of the work agreed to under this Contract. The Date of Substantial Completion shall be as determined under the provision of the Payment Clause.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All materials to be incorporated into the tank for the installation of the mixing systems and recoating shall be new, and previously unused.

2.2 COATINGS

- A. Materials
  - 1. All materials for the inside and outside paint systems shall be supplied by a single manufacturer and delivered to the site in factory-sealed containers which show the manufacturer's name and the contents of the containers.
  - 2. The exterior color of the water storage tank shall match the existing color.
  - 3. Prior to the application of any paint system specified in this section, the Contractor shall provide the Owner an affidavit from the paint manufacturer or supplier stating that the interior and exterior paint systems are in fact as specified herein.
  - 4. Paint supplier shall send a representative to the pre-construction meeting. Selected contractor MUST fully review all appropriate coating manufacturer written specification pages regarding ALL surface preparation, application, thicknesses, curing times, safety precaution and all other recommendation pertaining to the intended substrate to be painted. Contractor must fully review

and understand these requirements PRIOR to commencing with any aspect of the work.

B. Paint Systems:

1. The interior paint system for non-water contact areas (above shell wall) shall be designed for high moisture environments that meets all the requirements conforming to Tnemec, Sherwin Williams, or equivalent.

TNEMEC

Primer:	Series 94 H2O Hydro-Zinc	2.5-4.0 mils DFT
Intermediate Coat:	Full coat of Series V140 PotaPox Plus to all surfaces (white)	6.0-8.0 mils DFT
Finish Coat:	Full finish coat of V140 PotaPox Plus to all surfaces (white)	6.0-8.0 mils DFT

SHERWIN-WILLIAMS

Primer:	Corothane I Galvapac 1K Zinc Primer	3.0-4.0 mils DFT
Stripe Coat:	Macropoxy 646 Potable Water at all weld seams	2.5-3.5 mils DFT
Finish:	Full finish coat of SherPlate PW (white)	25-35 mils

(OR APPROVED EQUAL)

2. All exterior surfaces (full exterior blast –fluoropolymer top coat meeting AWWA D-102 OSC #4 and meeting AAMA 2604 performance requirements), including all appurtenances such as platforms, columns, standpipes, vent pipes, frames, foundations, hatches, and ladders, shall be coated with a four (4) coat system consisting of an organic zinc rich primer, epoxy intermediate coat, and finish coat as follows

TNEMEC

Primer:	Series 94 H2O Hydro-Zinc	2.5-4.0 mils DFT
Second Coat:	Full coat of V140 PotaPox Plus	3.0-4.0 mils DFT
Third Coat:	Full coat of Series 1095 Endura-Shield	2.5-3.0 mils DFT
Fourth Coat:	Full finish coat of Series V701 HydroFlon (Color selection by Owner)	2.0-3.0 mils DFT

SHERWIN-WILLIAMS

Primer:	Corothane I Galvapac 1K Zinc Primer	2.5-4.0 mils DFT
Second Coat:	Full coat of Macropoxy 646 Fast Cure Epoxy	3.0-4.0 mils DFT
Third Coat:	Full coat of Acrolon 218 HS Polyurethane	3.0-6.0 mils DFT
Fourth Coat:	Full finish coat of Fluorokem HS-100 Urethane	2.0-3.0 mils DFT

(Color selection by Owner)

(OR APPROVED EQUAL)

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. The Contractor shall make provisions to ensure that no overspray damages adjacent properties.
- B. All work involving the removal of paint shall be in compliance with all state and federal regulations including OSHA regulations 29 CFR 1926.62.

#### 3.2 CLEANING AND PAINTING

- A. General:
  - 1. This section of the specification covers surface preparation and workmanship required for the completion of the exterior and interior surfaces of the water storage tank.
  - 2. All painting shall be done strictly in accordance with the paint manufacturer's instructions.
- B. Application:
  - 1. The prime coat shall be applied to the welds by brush (striping).
  - 2. All materials shall be mixed, thinned, and applied in strict accordance with the manufacturer's printed instructions.
  - 3. The paint systems shall be applied only to clean, dry surfaces in favorable temperatures and weather conditions, in strict accordance with the manufacturer's printed instructions.
  - 4. Sufficient time shall be allowed for each coat to thoroughly dry before the next coat is applied. Adequate ventilation shall be provided for the tank interior during the drying process.
  - 5. A minimum of seven days curing following the application of the final coat on the interior tank surface shall be allowed before disinfecting the tank.
  - 6. Safety precautions as required by paint manufacturer and OSHA shall be followed.
- C. Testing: During application of the inside and outside paint systems and at the completion of the painting, the Contractor shall conduct testing consisting of wet film thickness testing for each 100 square feet of surface painted and dry film thickness as per SSPC-PA2 (one test per 100 square feet). A test report shall be prepared and submitted to the Engineer when painting is complete.

#### 3.3 VOC TESTING

- A. Is interior painting is required, the Contractor shall collect a water sample representative of the volume within tank and have a certified laboratory perform an EPA Method 524.2 VOC test. Owner to receive test results on laboratory letterhead

before tank is placed online. If tests are below the laboratory detection limit and/or background source limit the facilities may be placed into operation. If tests are above the laboratory detection limit, appropriate measures shall be taken to clean, flush, and/or drain the tank and refill and re-analyze for VOC's until below the detection limit.

END OF SECTION