

Waterworks District 9, Ward 4 Meeting Minutes  
Regular Board Meeting  
Monday, December 11, 2023  
5:30 pm – Conference Room

The Board of Directors met in a regular meeting on Monday, December 11, 2023, in the conference room located at 4015 Sherry St, Sulphur, LA., with President Kent Chamblee presiding with the following members present: Richard Boenig, Steve Belshe, Kent Chamblee, Theresa Bell and Ray Taylor.

The Invocation was led by Ray Taylor followed by the Pledge of Allegiance.

Audience: Lee Lancon – Lancon Engineers, Inc.

**Lee Lancon – Lancon Engineers, Inc. Engineering Report**

- **Becky’s Catering** – Lee asked for an update. Kelly let him know we are still waiting for a response from her attorney.
- **Preparation for Bidding Documents for Phase 2** (see engineers report)
  - Lee is still working to finalize the bidding documents. He is hoping to have them ready for review and approval at January’s board meeting.
- **2023 Water Line Upgrade Project (ARP Funds)**
  - Per Theresa Bell, scope went back to P&N – should hear back mid-week this week.
- **Flashing on Filters** (see engineers report)
  - Lee showed the board pictures of flashing currently on filters. Flashing is starting to rust and affect the tank wall.
  - Jay asked if there was something other than flashing that could be used. Lee is to find out what else there may be. Ray Taylor suggested putting an awning over filters.
  - Lee suggests pulling this work from scope on tank repairs. The board agrees.
- **Supports under Filters**
  - Lee showed the board pics of damage to concrete supports. After some discussion, the board agreed the cracking was not substantial and decided to take pics again in a year or two for comparison.
- **Burton Shipyard Easements**
  - Lee received a response from Bob Kleinschmidt that there are no issues with canceling the document titled “Agreement Right-Of-Way Easement Agreements.”

## Waterworks District 9, Ward 4 Meeting for 12/11/23

- Lee is hoping to have the other easement to cancel ready for January's meeting.
- There was a motion by Theresa Bell and seconded by Richard Boenig for Kent Chamblee to sign document canceling easement. Motion carried.

### **Update on Intra Governmental Service Agreement between Waterworks #9 and Fire Protection District #2, Ward 4**

Kelly spoke with Micah at the Fire Department. She stated they did not do anything with it this month and is hoping to have it back on their agenda for January's meeting. Theresa Bell stated she will plan to visit the fire department again.

### **Kelly Riley – Reports**

- **Minutes** – Minutes were reviewed. There was a motion by Ray Taylor and seconded by Richard Boenig to approve the minutes as presented. Motion carried.
- **Payables** – Payables were reviewed and discussed. There was a motion by Ray Taylor and seconded by Steve Belshe to approve payables as presented. Motion carried.
- **Profit & Loss** – Reviewed and discussed. Ray Taylor questioned the dollar amount of credit card fees and the account analysis fees.
  - Kelly is in the process of trying to lower card fees paid by the district.
  - The board discussed rebidding the checking account in search of lower monthly fees.
- **LAMP Funds** – Reviewed and discussed.
- **Employee Health Insurance** – Kelly let the board know the parish voted to raise the employer contribution for health insurance from \$1075.00 per employee to \$1250.00 per employee. After some discussion, there was a motion by Theresa Bell and seconded by Ray Taylor to raise the amount paid by the district for employee premiums from \$1075.00 to \$1250.00. Motion carried.
- **Bridgefield (Workers Comp. Ins. Renewal)** – Renewal amount \$ 12,627.16. Kelly is to check on the Premium Basis numbers. They are the same as last year. There was a motion by Ray Taylor and seconded by Richard Boenig to pay premium if the amount does not exceed amount submitted.
- **Policy Manuel** – In progress.

## Waterworks District 9, Ward 4 Meeting for 12/11/23

### Jay Picard – Reports/Updates

- **Purchase Order Policy** – Kelly and Jay will get together to write policy to present at January’s meeting for the board’s approval.
- **Tie in Well #3 to Emergency Generator** – Jay is still trying to get an electrician to get scope for work.
  - Jay received a quote from Devall to have a generator on standby.
    - \$3,800.00 to have it on standby at their yard.
    - \$5,000.00 when the generator is on site.
  - The board decided not to have Devall keep a generator on standby.
  - After some discussion, the board agreed to have United Rentals pick up the generator that is currently on site.
  - Should the tie in not be complete by June 2024, the board will discuss whether to put a generator (300KW for well #3) on standby.
- **Office Security** – Jay will have security company come out and give quote to update the whole security system.

The was a motion to adjourn by Ray Taylor and seconded by Richard Boenig.  
Motion carried.

Water Works District No. 9, Ward 4

Engineer's Report for December 11, 2023, Board Meeting

Report issued: December 11, 2023

**LEI Project No. 19-007 Water Storage Tanks Rehabilitation**

1. Construction is now complete, and the following is a general summary of construction work completed since last report:
  - 1.1. EWST #1 Volunteer Road
    - 1.1.1. All work completed.
  - 1.2. EWST #2 Mosswood Drive
    - 1.2.1. All work completed.
  - 1.3. Project Status
    - 1.3.1. Once the damage issues have been resolved a reconciliation change order will be prepared and fully executed and final payment will be recommended by LEI.
    - 1.3.2. Get an update on Becky's damages.

**LEI Project No. 19-007 Water Storage Tanks Rehabilitation (Phase 2)**

1. Preparation of Bidding Documents for Phase 2
  - 1.1. The preliminary project scope is attached for Boards review and consideration. The additional scope of work items included are highlighted and are briefly summarized as follows:
    - 1.1.1. Added a chime seal system for both tanks
    - 1.1.2. Will perform thickness checks of both tanks floor at chime corrosion areas to verify if a section of floor needs to be removed and replaced.
    - 1.1.3. Furnish and install davit arm or hinge on primary shell manway, Tank 1.
    - 1.1.4. Repair liquid level indicator for both tanks
    - 1.1.5. Furnish and install new OSHA compliant handrail from roof ladder to roof hatch and roof vent with nonskid roof surface along the path.
    - 1.1.6. Remove and replace roof stiffener ring and 3 sections of roof stiffeners on Tank 1. Also inspect and re-weld existing roof stiffeners as required.
    - 1.1.7. Blast and paint the interior and exterior of both tanks. Provide complete containment and climate control for tank interior.
    - 1.1.8. Remove and replace tank 2 roof with a self-supporting roof system.
    - 1.1.9. Furnish and install 4 tie-off cleats positioned around the roof vent for both roofs.
    - 1.1.10. Furnish and install vertical and horizontal chime plates on the interior of tank 2.

- 1.1.11. Remove and replace the internal overflow pipe on tank 2.
- 1.1.12. Remove the existing external sampling tap and box and repair tank wall tank 2.
- 1.1.13. Remove and replace existing bolts, washers and nuts on 1-20" flange fitting, 1-8" flange fitting, 2-8" MJ fittings, and 3 all thread bolts using SS hardware on header piping to pressure relief valve.
- 1.1.14. Remove and replace corroded 8" ductile iron pipe to pressure relief valve.
- 1.1.15. Fully contain abrasive blasting and painting of header and yard piping, protect all surfaces of existing structures from damage.
- 1.2. Continuing to work on finalizing the project scope and project manual and plan to submit it for the Boards review by the end of December.
- 1.3. Discuss issues with filters and building wall penetrations. Recommend owner solicit quotes to remove existing flashing to allow inspection of filter wall and coating system at wall penetrations and replace flashing with temporary flashing that will be removed and replaced by painting contractor and then remove and replace building insulation and sheeting on the entire wall and permanently flash the filter wall penetration.

**LEI Project No. 22-003, 2023 Water Line Upgrade Project (ARP Funds)**

1. Updated the Engineering Service Agreement and submitted a final copy to the Board for their review and comment. Discuss the agreement with the Board the Board meeting.

# TECHNICAL PROVISIONS

## SECTION 1

### GENERAL REQUIREMENTS OF THE SPECIFICATIONS

#### 1.1 SCOPE OF WORK

This project consists of the rehabilitation of two (2) 750,000 gallon ground steel potable water storage tanks (57' diameter x 40' height), blasting/painting of ductile iron header piping, yard piping and appurtenances (pipe, fittings, specials, valves, and pipe supports) (10"-20" diameter), and cleaning/painting of six (6) horizontal potable water pressure filters (8' diameter x 22' ± length). See Special Provisions, Exhibit 3 for the project location and site maps.

The approximate quantity of header and yard piping is 12' of 10", 86' of 12", 4' of 14", 65' of 16", and 75' of 20". Bidder/Contractor should field verify estimated quantities.

The intent of this Contract is to provide for construction and completion, in every detail, of the Work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the Work in accordance with the plans, specifications, and terms of the Contract.

The project generally consists of, but is not limited to, the following items of work:

#### GROUND WATER STORAGE TANK NO. 1 (SHERRY STREET – SOUTH)

<u>REF. NO.</u>	<u>DESCRIPTION</u>
GWST1-1	Furnish and Install " <i>Warning, Tampering With This Facility is a Federal Offense</i> " sign (4 each) and " <i>No Trespassing</i> " sign (4 each). See Supplementary Conditions, Exhibit C Page 2, Exhibit E Page 4 and 5, and Technical Provisions, Section 2 - Special Specifications, Paragraph 2.
GWST1-2	Seal around the base of the tank (tank chime) to foundation. See Supplementary Conditions, Exhibit E Page 11, and Technical Provisions, Section 2 - Special Specifications, Paragraph 3.
GWST1-4	Perform thickness checks of the tank interior floor along the tank wall opposite the failed chime noted in Supplementary Conditions, Exhibit E, Page 11. The floor area shall measure 20' along the wall by 2' wide.

Thickness checks shall be taken on a 3" by 3" grid. Provide a sketch of thickness check locations and values to Engineer.

- GWST1-5 Electrically ground the tank for lightning protection. Four (4) ground rods required (12 o'clock, 3 o'clock, 6 o'clock, and 9 o'clock). See Supplementary Conditions, Exhibit D Page 5, and Technical Provisions, Section 2 - Special Specifications, Paragraph 7.
- GWST1-6 Furnish and Install a "*Confined Space Entry*" sign on primary and secondary shell manway. See Supplementary Conditions, Exhibit C Page 7 and 8, and Technical Provisions, Section 2 - Special Specifications, Paragraph 2.
- GWST1-7 Furnish and Install new galvanized steel bolts, washers, and nuts on primary and secondary shell manway (match existing bolt diameter). See Supplementary Conditions, Exhibit C Page 7 and 8, and Technical Provisions, Section 2 - Special Specifications, Paragraph 8.
- GWST1-? Furnish and Install new davit arm or hinge on the primary shell manway. See Supplementary Conditions, Exhibit C Page 7 and Technical Provisions, Section 2 - Special Specifications, Paragraph ?.
- GWST1-8 Furnish and Install a new flapper valve and new screen on the overflow pipe elbow. See Supplementary Conditions, Exhibit C Page 9, and Technical Provisions, Section 2 – Special Specifications, Paragraph ?.
- GWST1-9 Furnish and Install anti-skid rung covers on exterior shell access ladder using SAFEGUARD Hi-Traction rung covers, Sikaflex 252 adhesive, and Sikaflex 221 sealant to seal edges or approved equal. See Supplementary Conditions, Exhibit C Page 10, and Technical Provisions, Section 2 - Special Specifications, Paragraph 4.
- GWST1-10 Furnish and Install a "*Fall Protection Required*" sign at base of exterior shell access ladder. See Supplementary Conditions, Exhibit C Page 10, and Technical Provisions, Section 2 - Special Specifications, Paragraph 2.
- GWST1-11 Furnish and Install a swing gate at the exterior shell access standoff platform. See Supplementary Conditions, Exhibit C Page 11, and Technical Provisions, Section 2 - Special Specifications, Paragraph 10.
- GWST1-12 Remove and replace existing liquid level indicator system, complete and in-place. See Supplementary Conditions, Exhibit C Page 12, and Technical Provisions, Section 2 – Special Specifications, Paragraph ?
- GWST1-? Furnish and Install four (4) Fall Protection Tie-off Cleats positioned around the tank vent. See Technical Provisions, Section 6 – Miscellaneous Details, Detail No. ?
- GWST1-13 Furnish and Install a new OSHA compliant welded steel handrail from the roof ladder platform to the roof vent including a non-skid roof surface. See Technical Provisions, Section 2 – Special Specifications, Paragraph ? and Section 6 – Miscellaneous Details, Detail No. ?

- GWST1-? Remove and replace existing roof stiffener ring and three (3) sections of roof angle stiffeners. See Supplementary Conditions, Exhibit E Page 22, and Technical Provisions, Section 2 – Special Provisions, Paragraph ?
- GWST1-? Re-weld the roof stiffener-to-shell connections (inspection work only). See Technical Provisions, Section 2 – Special Specifications, Paragraph 6.
- GWST1-? Re-weld the roof stiffener-to-shell connections (re-weld work only). See Technical Provisions, Section 2 – Special Specifications, Paragraph 6.
- GWST1-14 Furnish and Install a “*Confined Space Entry*” sign on roof hatch. See Supplementary Conditions, Exhibit C Page 14, and Technical Provisions, Section 2 - Special Specifications, Paragraph 2.
- GWST1-15 Install lock on primary roof hatch. WWD#9 to provide lock. See Supplementary Conditions, Exhibit C Page 14.
- GWST1-16 Abrasive blast and paint the tank exterior surface including containment/disposal, replacing logos, and replacing level indicator markings. Contractor shall protect all existing structures from damage due to abrasive blasting and painting construction.

Exterior Surface Preparation – Provide containment and disposal of abrasive blasting debris as per Subsection 3.01 of Section 5 of the Technical Provisions of the Specifications. Remove all visible oil, grease, soil, dirt and other soluble contaminants in accordance with SSPC-SP1. Weld slag, weld splatter, rough edges, and sharp edges of weld seams shall be ground smooth. All surfaces shall be abrasive blasted in accordance with SSPC-SP10 Near White Metal Blast and to achieve a minimum 1.5-2.0 mil angular surface profile. The prepared surface shall be coated immediately after completion of that day’s surface preparation and before any rust bloom.

Exterior Coating System:

1. 1<sup>st</sup> Coat, Tnemec Series 90G-1K97 Tneme-Zinc (2.5-3.5 dry mils).
2. Stripe Coat, Tnemec Series 21 Epoxoline (Welded Seams).
3. 2<sup>rd</sup> Coat, Tnemec Series 73 Endura-Shield (2.0-3.0 dry mils).
4. 3<sup>th</sup> Coat, Tnemec Series 700 Hydroflon (2.5-3.0 dry mils).

See Technical Provisions, Section 5 - Painting Steel Water Tanks.

- GWST1-17 Abrasive blast and paint the tank interior surface including containment/disposal and providing both temperature and humidity control equipment. Contractor shall protect all existing structures from damage due to abrasive blasting and painting construction.

Interior Surface Preparation - Provide containment and disposal of abrasive blasting debris as per Subsection 3.01 of Section 5 of the Technical Provisions of the Specifications. Abrasive blast the interior



surface in accordance with SSPC-SP10 Near White Metal Blast Cleaning and to achieve a 1.5 to 2.0 mil angular surface profile. The prepared surface shall be coated immediately after completion of that day's surface preparation and before any rust bloom.

Interior Coating System:

1. 1<sup>st</sup> Coat, Tnemec Series 91/94 H<sub>2</sub>O Hydro-Zinc (2.5-3.5 dry mils).
2. Stripe Coat, Tnemec Series 21 Epoxoline (Welded Seams).
3. 2<sup>nd</sup> Coat, Tnemec Series 21 Epoxoline (4.0-6.0 dry mils).
4. 3<sup>rd</sup> Coat Tnemec Series 21 Epoxoline (4.0-6.0 dry mils).

Contractor shall provide the necessary equipment to control both the temperature and humidity of the tank interior during the surface preparation, installation and drying of the tank interior coating system.

See Technical Provisions, Section 5 - Painting Steel Water Tanks.

**GROUND WATER STORAGE TANK NO. 2  
(SHERRY STREET – NORTH)**

<u>REF. NO.</u>	<u>DESCRIPTION</u>
GWST2-2	Seal around the base of the tank (tank chime) to foundation. See Supplementary Conditions, Exhibit D Page 4, Exhibit E Page 46, and Technical Provisions, Section 2 - Special Specifications, Paragraph 3.
GWST2-4	Perform thickness checks of the tank interior floor along the tank wall opposite the failed chime noted in Supplementary Conditions, Exhibit E, Page 46. The floor area shall measure 20' along the wall by 2' wide. Thickness checks shall be taken on a 3" by 3" grid. Provide a sketch of thickness check locations and values to Engineer.
GWST2-5	Electrically ground the tank for lightning protection. Four (4) ground rods required (12 o'clock, 3 o'clock, 6 o'clock, and 9 o'clock). See Supplementary Conditions, Exhibit D, Page 5 and Technical Provisions, Section 2 - Special Specifications, Paragraph 7.
GWST2-6	Furnish and Install a " <i>Confined Space Entry</i> " sign on primary and secondary shell manway. See Supplementary Conditions, Exhibit D, Page 7 and 8 and Technical Provisions, Section 2 - Special Specifications, Paragraph 2.
GWST2-7	Furnish and Install new galvanized steel bolts, washers, and nuts on primary and secondary shell manway (match existing bolt diameter). See

- Supplementary Conditions, Exhibit D, Page 7 and 8 and Technical Provisions, Section 2 - Special Specifications, Paragraph 8.
- GWST2-8 Furnish and Install a new flapper valve and new screen on the overflow pipe elbow. See Supplementary Conditions, Exhibit D Page 9, Exhibit E Page 48, and Technical Provisions, Section 2 – Special Specifications, Paragraph ?.
- GWST2-9 Furnish and Install anti-skid rung covers on exterior shell access ladder using SAFEGUARD Hi-Traction rung covers, Sikaflex 252 adhesive, and Sikaflex 221 sealant to seal edges or approved equal. See Supplementary Conditions, Exhibit D, Page 10 and Technical Provisions, Section 2 - Special Specifications, Paragraph 4.
- GWST2-10 Furnish and Install a "*Fall Protection Required*" sign at base of exterior shell access ladder. See Supplementary Conditions, Exhibit D, Page 10 and Technical Provisions, Section 2 - Special Specifications, Paragraph 2.
- GWST2-? Remove and replace existing liquid level indicator system, complete and in-place. See Supplementary Conditions, Exhibit D, Page 12 and Technical Provisions, Section 2 – Special Specifications, Paragraph ?
- GWST2-? Furnish and Install an OSHA compliant 42" high handrail system along the circumference of the tank roof extending 8 feet each side of the upper access ladder platform, complete with intermediate rail, toe board and a swing gate at the junction of the shell-to-roof access ladder and tank roof. See Supplementary Conditions, Exhibit D, Page 13 and Technical Provisions, Section 2 - Special Specifications, Paragraph 9.
- GWST2-? Remove and replace existing tank roof including a new center vent and a new 24-inch square roof hatch leaving the knuckle sections in-place. See Supplemental Conditions, Exhibit E Page 52 and Technical Provisions, Section 2 – Special Specifications, Paragraph ?.
- GWST2-? Furnish and Install four (4) Fall Protection Tie-off Cleats positioned around the tank vent. See Technical Provisions, Section 6 – Miscellaneous Details, Detail No. ?
- GWST2-? Furnish and Install a new OSHA compliant welded steel handrail from the roof ladder platform to the roof vent including a non-skid roof surface. See Technical Provisions, Section 2 – Special Specifications, Paragraph ? and Section 6 – Miscellaneous Details, Detail No. ?
- GWST2-? Furnish and install a new 3/8-inch x 12-inch vertical chime plate and a new 1/4-inch x 12-inch horizontal chime plate on the entire interior circumference of the tank. See Technical Provisions, Section 6 – Miscellaneous Details, Detail No. ?.
- GWST2-? Remove and replace internal overflow pipe. See Supplementary Conditions, Exhibit E, Page 36 and Technical Provisions, Section 6 – Miscellaneous Details, Detail No. ?

- GWST2-? Remove existing external sampling tap and box and repair tank wall. See Supplementary Conditions, Exhibit ?, Page ? and Technical Provisions, Section 6 – Miscellaneous Details, Detail No. ?
- GWST2-14 Furnish and Install a “*Confined Space Entry*” sign on roof hatch. See Supplementary Conditions, Exhibit D, Page 14 and Technical Provisions, Section 2 - Special Specifications, Paragraph 2.
- GWST2-15 Install lock on primary roof hatch. WWD#9 to provide lock. See Supplementary Conditions, Exhibit D, Page 14.
- GWST2-16 Abrasive blast and paint the tank exterior surface including containment/disposal, replacing logos, and replacing level indicator markings. Contractor shall protect all existing structures from damage due to abrasive blasting and painting construction.

Exterior Surface Preparation – Provide containment and disposal of abrasive blasting debris as per Subsection 3.01 of Section 5 of the Technical Provisions of the Specifications. Remove all visible oil, grease, soil, dirt and other soluble contaminants in accordance with SSPC-SP1. Weld slag, weld splatter, rough edges, and sharp edges of weld seams shall be ground smooth. All surfaces shall be abrasive blasted in accordance with SSPC-SP10 Near White Metal Blast and to achieve a minimum 1.5-2.0 mil angular surface profile. The prepared surface shall be coated immediately after completion of that day’s surface preparation and before any rust bloom.

Exterior Coating System:

1. 1<sup>st</sup> Coat, Tnemec Series 90G-1K97 Tneme-Zinc (2.5-3.5 dry mils).
2. Stripe Coat, Tnemec Series 21 Epoxoline (Welded Seams).
3. 2<sup>nd</sup> Coat, Tnemec Series 73 Endura-Shield (2.0-3.0 dry mils).
4. 3<sup>th</sup> Coat, Tnemec Series 700 Hydroflon (2.5-3.0 dry mils).

See Technical Provisions, Section 5 - Painting Steel Water Tanks.

- GWST2-16 Abrasive blast and paint the tank interior surface including containment/disposal and providing both temperature and humidity control equipment. Contractor shall protect all existing structures from damage due to abrasive blasting and painting construction.

Interior Surface Preparation - Provide containment and disposal of abrasive blasting debris as per Subsection 3.01 of Section 5 of the Technical Provisions of the Specifications. Abrasive blast the interior surface in accordance with SSPC-SP10 Near White Metal Blast Cleaning and to achieve a 1.5 to 2.0 mil angular surface profile. The

prepared surface shall be coated immediately after completion of that day's surface preparation and before any rust bloom.

**Interior Coating System:**

1. 1<sup>st</sup> Coat, Tnemec Series 91/94 H<sub>2</sub>O Hydro-Zinc (2.5-3.5 dry mils).
2. Stripe Coat, Tnemec Series 21 Epoxoline (Welded Seams).
3. 2<sup>nd</sup> Coat, Tnemec Series 21 Epoxoline (4.0-6.0 dry mils).
4. 3<sup>rd</sup> Coat Tnemec Series 21 Epoxoline (4.0-6.0 dry mils).

Contractor shall provide the necessary equipment to control both the temperature and humidity of the tank interior during the surface preparation, installation and drying of the tank interior coating system.

See Technical Provisions, Section 5 - Painting Steel Water Tanks.

**YARD AND HEADER PIPING AND APPURTENANCES  
(10"-20" DIAMETER PIPE)**

<u>REF. NO.</u>	<u>DESCRIPTION</u>
YHP-?	Remove and replace existing bolts, washers, and nuts on the following fittings: 1-20" flange fitting, 1-8" flange fittings, and 2-8" mechanical joint fitting using all A316 stainless steel hardware. See Supplementary Conditions, Exhibit ?, Page ? and Technical Provisions, Section 2 – Special Specifications, Paragraph ?
YHP-?	Remove and replace three (3) existing all thread bolts, washers, and nuts (3/4" x 14") using all A316 stainless steel hardware. See Supplementary Conditions, Exhibit ?, Page ? and Technical Provisions, Section 2 – Special Specifications, Paragraph ?.
YHP-?	Remove and replace 1 -8" x ?' ductile iron pipe (pressure class 350)(cement lines)(above ground) with flanged ends (includes gaskets and bolts). See Supplementary Conditions, Exhibit ?, Page ? and Technical Provisions, Section 2 – Special Specifications, Paragraph ?.
YHP-?	Abrasive blast and paint all existing above ground yard and header piping and appurtenances (pipe, fittings, specials, valves, and pipe supports) located between the filter building and the ground storage water tanks and located on the north end of the filter building including containment/disposal. Provide containment and disposal of abrasive blasting debris as per Subsection 3.01 of Section 5 of the Technical Provisions of the Specifications. Contractor shall protect all existing structures from damage due to abrasive blasting and painting construction. Abrasive blast and paint all pipe to a depth 6" below the ground surface.

Surface Preparation (Ductile Iron) - Abrasive blast all surfaces with a fine abrasive and at a 45 degree angle to remove all existing coatings, oxides and all other soluble surface contaminants. The surface shall contain a minimum angular profile of 1.5 mils. (Reference NACE RP0287 or ASTM D4417, METHOD C.) The prepared surface shall be coated immediately after completion of that day's surface preparation and before any rust bloom.

Surface Preparation (Carbon Steel) – Abrasive blast all surfaces in accordance with SSPC-SP6 Commercial Blast Cleaning. The prepared surface shall be coated immediately after completion of that day's surface preparation and before any rust bloom.

Coating System (Ductile Iron Pipe, Fittings, and Other Ductile Iron Surfaces):

1. 1st Coat Tnemec Series 161 Polyamide Epoxy, 4.0-6.0 dry mils.
2. 2nd Coat Tnemec Series 66 or Series 21 Epoxoline, 4.0-6.0 dry mils.
3. 3rd Coat Tnemec Series 1094 Endura-Shield II High-Build Polyurethane, 2.0-4.0 dry mils.

Coating System (Carbon Steel Surfaces):

1. 1st Coat Tnemec Series 90G-1K97 Polyurethane, Zinc Rich Primer, 2.5-3.5 dry mils.
2. 2nd Coat Tnemec Series 66 or Series 21 Epoxoline, 4.0-6.0 dry mils.
3. 3rd Coat Tnemec Series 1094 Endura-Shield II High-Build Polyurethane, 2.0-4.0 dry mils.

See Technical Provisions, Section 4 - Painting and Coating Systems.

## **STEEL HORIZONTAL PRESSURE WATER FILTERS (6 – Filters 8' Diameter X 22' ± Length)**

### **REF. NO.**

HPF-1

### **DESCRIPTION**

Clean and paint the exterior surface of six (6) steel horizontal pressure water filters.

Surface preparation - High pressure water blast with a minimum 3500 psi and rotary nozzle or as required to remove all soluble surface contaminants. Spot power tool clean to bare metal all failed areas in accordance with SSPC-SP11 and feather-edge. All loose and delaminated existing surface coat shall be removed by power tool

sanding and the underlying coating power tool sanded to degloss. Contractor shall remove the temporary flashing at the filter building wall penetrations to access failed areas and replace the temporary flashing when work is complete. Contractor shall protect the existing tank coating on the inside of the building and erect temporary curtains to keep the removed coating and other debris confined to the existing wall area. The line where the new coating connects to the existing coating on the inside of the building shall be kept as close to the wall as possible and shall be straight and uniform around the entire circumference of the filter. Debris from surface preparation accumulated on the inside of the building shall be cleaned up and removed daily. All existing surfaces exhibiting a gloss after surface preparation shall be de-glossed by power tool sanding or other approved methods. The prepared surface shall be coated immediately after completion of that day's surface preparation and before any rust bloom.

Coating System:

1. Spot prime (1<sup>st</sup> coat) failed areas using Tnemec Series 135 Chembuild, 4.0-6.0 dry mils.
1. Spot prime (2<sup>nd</sup> coat) failed areas using Tnemec Series 135 Chembuild, 4.0-6.0 dry mils.
2. 1st Coat (Entire Filter) - Tnemec Series 66 Polyamide Epoxy, 2.0-3.0 dry mils.
3. 2nd Coat (Entire Filter) - Tnemec Series 1094 Endura-Shield II High-Build Polyurethane, 2.5-3.0 dry mils.

See Supplementary Conditions, Exhibit ?, Page ? and Technical Provisions, Section 4 - Painting and Coating Systems.