SECTION 09 97 72 (REVISION 1)

COATING AND LINING

PART 1 - GENERAL

1.01 SUMMARY

A. The work shall include the surface preparation and the application of the coating of all surfaces as described herein and as shown on the Drawings. If there are conflicts between the Specifications and instructions from coating manufacturer, the more stringent document will be used to enforce the work. Interpretation and decision by City Representative will be final.

B. The new steel surfaces, including the exterior and interior of the **New Welded Steel Main, Appurtenances and Specials** as indicated in the contract specifications and drawings shall be coated and lined in accordance with this specification.

C. Unless otherwise noted, field-applied lining material shall match factory-applied material.

D. Prior to any coating and lining applications, the surfaces shall be prepared in strict compliance and in accordance with the coating manufacturer's instructions.

E. Unless otherwise indicated on the Drawings, other metallic surfaces such as aluminum, copper, and brass, shall be properly masked and protected from abrasive blasting material and coating material.

F. The work shall be performed by SSPC QP-1 & QP-2 certified coating contractor. Furnish labor, material, equipment, quality control, and other incidentals as required for the application of all coating materials as indicated in the Specifications and on the Drawings.

G. The contractor shall be responsible to maintain environmental conditions as required by the manufacturer for the coating system being applied and until final cure, by suitable means including dehumidification if necessary. The coating material shall not be coated over the standing water.

H. Provide a suitable and approved containment system to contain the dust and overspray.

I. Stripe coats shall be performed in the hard-to-reach areas.

J. Contractor shall repair any coating or lining damages due to the transportation from factory to the jobsite; damages during installation, and damages during the QA Coating Inspection and testing. The repairs and touch-up shall be performed only by a qualified coating applicator.

K. Acceptance of the work by the City Representative shall require that the finished coating material meet the dry film thickness requirements, be bug hole free, pass the holidays detection per NACE SP0188, and uniformity per applicable sections in the SSPC-PA2. The coating inspections shall be performed by the QA Coating Inspector on all coated surfaces.

L. See specification section 01 11 00-SUMMARY OF WORK for construction constraints and sequence. Contractor shall be responsible for cost associated with multiple mobilization efforts and related activities based on the constraints and sequence described in specification section 01 11 00.

1.02 RELATED WORK

A. Section 01 11 00 – Summary of Work
B. Section 26 42 40 – Corrosion Control
C. Section 33 11 50 – Installation of Steel Pipeline
D. Section 33 11 55 – Fabrication of Steel Pipe

1.03 CODES AND STANDARDS

The contractor shall comply in strict conformance with the latest edition of the following standards.

SSPC-SP1 Steel Structures Painting Council Surface Preparation Specification No. 1 - Solvent Cleaning.

SSPC-SP2 Steel Structures Painting Council Surface Preparation Specification No. 2 - Hand Tool Cleaning.

SSPC-SP3 Steel Structures Painting Council Surface Preparation Specification No. 3 - Power Tool Cleaning.

SSPC-SP10 Steel Structures Painting Council Surface Preparation Specification No. 10, Near-White Metal Blast Cleaning

SSPC-QP 1 Standard Procedure for Evaluating Painting Contractors (Field Application to Complex Industrial Structures)

SSPC-QP 2 Standard Procedure for Evaluating Painting Contractors (Field Removal of Hazardous Coatings from Complex Structures)

SSPC-PA2 Paint Application Specification No. 2, Measurement of Dry Paint Thickness with Magnetic Gages

SP0188-2006 National Association of Corrosion Engineers Standard Practices "Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates"

ASTM D4541Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers

AWWA C210 American Water Works Association: Liquid-Epoxy Coatings and Linings for Steel Water Pipe and Fittings

AWWA C222 American Water Works Association: Polyurethane Coatings and Linings for Steel Water Pipe and Fittings

1.04 QUALIFICATION OF THE COATING APPLICATOR

A. Coating applicator shall have at least 10-year experiences in performing coating and lining of metallic surfaces in water/wastewater industry. Contractor shall submit to the City Representative, the contact names and phone numbers of the 5 similar projects. The complexity of each project shall be similar to this project.

B. Coating applicator shall be familiar with the plural component spray equipment and have spray applied using the plural component rig more than 5 years. A representative from the coating manufacturer for the coating and lining shall be on site for at least the first week of the project

C. Field Coating applicator shall have an active C33 license as issued by the State of California for at least 5 years prior to the Contract.

D. Coating applicator shall be an approved applicator by the coating manufacturer, for the coating material being applied in this Contract. As a minimum, Representative from the coating manufacturer shall be at the jobsite to verify the proper set up prior to the coating operations, and whenever there is a change in the crew.

E. Coating applicator shall be SSPC-QP1 and SSPC-QP2 certified.

1.05 SUBMITTALS

A. Documents showing the experiences of the coating and lining applicator as required in Section 1.04. Failure to comply with the experience requirement will disqualify the Coating Applicator from applying coating and lining material for this project.

B. The coating and lining material data sheet.

C. Certification letter from coating manufacturer as indicated herein Section 1.04.D.

D. Certification of the Quality Assurance (QA) Coating Inspector per Section 1.06 below.

E. Contractor shall submit a letter from the coating manufacturer to confirm that the interior lining materials are in compliance with the ANSI/NSF-61 requirements. Due to the stringent parameters within the ANSI/NSF-61 Standards, the specified lining products may not conform to all pipe diameters, Contractor shall select another product from the list or an approved equal, which meets all ANSI/NSF-61 requirements for the applicable pipe diameters, at no additional cost to the City.

1.06 QUALITY ASSURANCE

A. Contractor shall provide a third party NACE certified, QA coating inspector as directed by the CITY to the shop and to the jobsite. The QA inspector will verify the overall Contractor's QC program of the coating/lining application, performed at the factory or at the jobsite.

B. The QA Coating Inspector shall be a NACE certified (Level 3 and passed the Peer review). The QA Coating inspector shall keep the City Representative informed and shall assist the City Representative in making technical decisions.

C. The QA Coating inspector and the coating contractor shall attend the preconstruction meeting.

D. The QA Coating inspector shall be at the jobsite during the surface preparation and the coating application. No coating activities shall be performed without the presence of the QA coating inspector.

E. Coating application shall not be performed until the QA Coating Inspector has approved the surface preparation.

F. The QA Coating Inspector shall monitor the ambient conditions. Surface temperature, wet bulb and dry bulb temperatures shall be monitored at all time. When the ambient conditions change beyond the parameters required for successful coating/lining operations, the QA Coating Inspector shall notify the City Representative and the coating contractor to shut down the job. Contractor shall not proceed until the ambient conditions are suitable for continuing, and as approved by the City Representative.

G. The QA Coating inspector shall inspect for the surface cleanliness, anchor profile, dry film thickness, recoat window, bug holes, witness holiday detection and other inspections such as adhesion test as deemed necessary. Contractor shall repair the coating/lining where the inspection and testing were performed.

H. All coating and lining shall be inspected by the QA Coating Inspector. Contractor shall notify the City Representative at least 7 days prior to the coating and lining operations.

I. The QA Coating Inspector shall perform 100% holiday detection on the coating and lining materials being applied. The QA Coating Inspector shall submit the daily reports to City Representative for records. The record shall include, but not limited to, the information as required in Section 3.01H of these Specifications.

J. The QA Coating Inspector shall have the right to perform additional tests as necessary which includes, but not limited to, adhesion test and the use of Tooke Gauge. If the test is a total failure, all lining and coating materials shall be removed and repaired to the satisfactory of the QA coating inspector and the City Representative. The field applicator shall repair the coating/lining damages as a result from the QA coating inspection at no additional cost to the City.

K. The QA Coating Inspector shall be from a reputable firm who has performed daily coating inspection for water/wastewater industry for the last 5 years. Resumes of the coating inspectors shall be provided to the City Representative for selection.

L. The QA Coating Inspection Services shall be provided through the Bid Item WD-26 QA (Coating/Lining), QA (CWI-welding) and SQS Inspection.

1.07 PRODUCT DELIVERY AND HANDLING

A. Deliver protective coating materials, and related items in factory-sealed, unopened containers bearing manufacturer's name, labels, batch number, and product identification.

B. Store in original unopened containers: Follow manufacturer's recommendations for storage temperature and shelf life requirements. Products exceeded from its shelf life shall be removed from job site.

C. Follow manufacturer's recommendations for handling products containing toxic materials. Keep flammable material away from heat, sparks, and open flame. Use recommended solvents and cleaning agents for cleaning tools, equipment**,** and skin.

1.08 EQUIPMENT REQUIREMENTS FOR COATING AND LINING OPERATIONS

A. When plural components are specified, the Contractor shall utilize Plural Component proportioning equipment capable of pumping two separate streams of coating components at the required ratio volumetrically. The use of the cartridge gun will be allowed only for patching or coating/lining repair for less than 4 sq/ft area, as approved by the City Representative. The roller or brush will be prohibited unless it is absolutely necessary. The plural component cartridge touch up spray system, when used, shall be as developed by coating manufacturer, with meter mix preset accuracy

B. Contractor shall have capability to heat the two different liquid components to a process temperature range of approximately 110 degrees Fahrenheit for the activator component, and approximately 170 degrees Fahrenheit for the base component.

C. Contractor shall have capability to maintain process temperature to spray through a gun or pour through the nozzle. The combined temperature at the spray nozzle, through the use of heated lines in order to achieve proper viscosity, should be 150 degrees Fahrenheit.

D. Contractor shall have capability to pump at pressures ranging from 2,500 PSI to 4,000 PSI.

E. Contractor shall have capability to bring the two separately proportioned streams together as one stream and mix together to provide a homogeneous mixture for reacting into a solid polymer of known properties.

F. Contractor shall provide spray atomization tip sizes matched to the pumping equipment output which provides a fully atomized spray pattern, free of "fingers" without the addition of solvents of any kind, size 530 spray tips are recommended.

G. Contractor shall arrange for the approved liner material manufacturer to review and approve the equipment set up at the place that the contractor will apply the liner just prior to the startup of lining operations.

1.09 COORDINATION AMONG DIFFERENT TRADES

A. The general contractor shall coordinate all disciplines for smooth coating operations.

B. Welding contractor and coating applicator shall discuss with the general contractor and submit the sequence of operations to the City Representative for approval.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Compatibility: For any protective coating system, only compatible materials from a single manufacturer or the manufacturer's approved supplier shall be used, including additives**.**

B. Manufacturer's Certification: That products furnished meet applicable Bay Area Air Quality Management District regulations as to allowable volatile organic compound (VOC) content for the place of application and use intended.

C. All lining material shall be in compliance with ANSI/NSF-61 requirements.

2.02 PLANT APPLIED EXTERIOR COATING AND INTERIOR LINING FOR THE WELDED STEEL MAIN, APPURTENANCES AND SPECIALS

A. The exterior coating shall be either one of the following:

1. Epoxy: Single coat with multi-pass, 50-60 mils DFT, 100% solids epoxy coating. The coating shall be Carboline Plasite 4500, Warren Environmental S-301, International Environline 230, or approved equal.

2. Polyurethane: Single coat with multi-pass, 50-60 mils DFT, 100% solids polyurethane coating. The coating shall be Carboline Polyclad 777, Endura-Flex 1988, LifeLast Durashield 110 or 210, Sherwin Williams Poly-Cote 115, or approved equal.

B. The interior lining material shall be in compliance with the requirements of ANSI/NSF 61. The dry film thickness shall be 55 – 60 mils DFT and not to exceed the NSF 61 approval for that product. The lining shall be either one of the following:

1. Epoxy: The lining shall be Carboline Plasite 4500, Warren Environmental S-301, International Environline 230, or approved equal.

2. Polyurethane: The lining shall be Carboline Polyclad 767, Endura-Flex 1988, LifeLast Durashield 310, or approved equal.

2.03 FIELD APPLIED EXTERIOR COATING FOR THE WELDED STEEL MAIN JOINTS

A. The field applied exterior coating for the welded steel main joints shall be heat-shrinkable sleeve. The heat shrinkable sleeve shall be Aqua-Shield by Canusa-CPS or approved equal.

B. The heat shrinkable sleeve shall overlap the plant applied coating a minimum of 5-inches. See plan no. WD-2775-18.1.

C. The transitions in profile at the field welded joints shall be filled with a non-hardening butyl rubber based extruded filler to prevent air bubbles underneath the heat shrinkable sleeves. The filler shall be 100% solids extruded mastic material compatible with the heat shrinkable sleeve material. The filler material shall be AquaSeal Filler by Canusa- CPS or approved equal.

2.04 FIELD APPLIED INTERIOR LINING FOR THE WELDED STEEL MAIN JOINTS

A. The field applied interior lining shall be the same material as the plant applied. See Section 2.03 above.

2.05 PLANT APPLIED INTERIOR LINING AND EXTERIOR COATING SYSTEM FOR VALVES

A. For Valves 12-inch diameter and larger

1. The coating and lining shall be epoxy, Carboline Carboguard 891, Sherwin Williams Macropoxy 646 PW, PPG Amerlock 2, or approved equal. In lieu of liquid epoxy, fusion bonded epoxy system shall also be acceptable.

2. The total dry film thickness shall be 16-20 mils DFT. It is the responsibility of the lining material applicator to ensure the maximum DFT of the lining system shall not interfere with the valve operations.

3. The interior lining material shall be certified NSF-61.

B. For Valves 10-inch diameter and smaller

1. The coating and lining system shall be the standard system from the valve manufacturer.

PART 3 – EXECUTION

3.01 GENERAL

A. Contractor shall provide adequate protection to all items that are affected by the work, including but not limited to protect such equipment as instrumentation, electrical equipment, concrete, valves, pipes, sumps, HVAC ducting and equipment, aluminum grating and support structure, and all other equipment in the area of the coating work. Before starting any surface cleaning and preparation work, Contractor shall thoroughly inspect that all surfaces are protected.

B. Contractor shall notify the City Representative, in writing, of any defects or discrepancies, which are affecting him to complete his work properly.

Commencing of work shall be construed as acceptance of the surfaces and it shall be the responsibility of the Contractor to correct any defect appearing in the surfaces once the protective coating preparation work has begun.

C. All safety procedures established by local, state, and federal agencies regarding job safety, which includes confined space requirements, shall be strictly adhered to.

D. Coordinate the work schedule with City Representative.

E. Prepare System Outage Requests as required.

F. The applicator shall follow the instructions from the printed material data sheet. No work shall be performed when the weather is not suitable for coating operation.

G. Containment system shall be provided to prevent dust and over spray. Dehumidification system shall be provided to hold the blast and prevent flash rust.

H. The QA Coating Inspector will perform the visual inspection, dry film thickness measurement and witness the holiday detection. If there is sign of coating defect, QA Coating Inspector shall notify the City Representative and perform additional testing such as adhesion test and etc. Contractor shall touch up areas, where coating inspection were performed, to the satisfaction of the City Representative. All coated surfaces shall be tested with holiday detection and shall be free of coating holidays and bug holes.

I. All scaffold or ladder shall not be removed until the final repairs and final inspections are completed. Final touch up shall be done to ensure that there is no coating damage due to the removal of the scaffold and the ladder.

3.02 CONTAINMENT SYSTEM

A. Impervious containment shall be provided during blasting and spray coating operations to prevent coating material and debris from escaping the immediate work area.

B. During spray of the coating, the containment shall also act as an effective insect guard. The containment shall prevent bugs from contacting the coating and shall be left in place until the coating is tack-free.

3.03 SURFACE CLEANING AND PREPARATION

A. Before the abrasive blasting or water-jetting, all oil and grease on the surfaces of the substrate shall be thoroughly removed in accordance with the coating manufacturer’s recommendations.

B. Oil, moisture separators and air dryers shall be used and maintained to remove oil and moisture from the air supply lines of the blasting equipment. The blotter test shall be used for checking for oil and moisture in the air supply. This test shall be conducted daily before blasting and when air hoses or equipment is reconnected.

C. All abrasive material shall be tested for chemical contamination prior to abrasive blasting using appropriated Chlor-Rid test-kits.

D. Surfaces shall be cleaned prior to application of coating and lining materials. Abrasive blast cleaned surfaces shall be coated on the same day the surface is prepared unless otherwise directed.

E. The surface preparation for the steel substrate shall be in accordance with SSPC-SP10/NACE No. 2, Near-White Metal Blast Cleaning. The anchor profile shall be as recommended per the coating manufacturer.

F. Surfaces shall be protected from and maintained free of oil, grease, dust and dirt until it has reached its final coat.

G. Metal surfaces to receive coating and lining shall be smooth without weld splatter, rust, or pitting.

H. Measure the soluble salts level on the surface prior to each coating application. The test kit shall be Chlor-Rid International Inc., or approved equal. Any detectable levels of Chlorides, Sulfates or Nitrates shall be less than 3-ppm by the Chlor-Rid test kit or approved equal. Adjust speed of travel, pressure of the pressure washer or dilution as necessary and retest to verify required cleanliness level is attained. Due to a wide variety of surface conditions, work environments, weather conditions, etc., the surface cleaning method may require alterations to better suit individual conditions. Contact the test kit manufacturer for recommendations.

I. After cleaning, the surface shall be protected from and maintained free of oil, grease, dust and dirt until it has reached its final coat. Any coating defects shall be touched-up by coating and lining crew.

J. After completion of surface preparation, all surfaces to be coated shall be inspected and approved by the QA Coating Inspector prior to coating operation. Specified cleanliness shall be verified through the use of accepted practice according to SSPC or NACE standards. Visual comparators shall be utilized to verify the specified level of cleanliness.

3.04 COATING AND LINING APPLICATION

A. Application of the protective coatings shall be in accordance with the coating manufacturer's instructions.

B. Environmental conditions prior to the coating and lining application shall be in accordance with the coating manufacturer's recommendations.

C. Immediately after the QA coating inspector has approved the surface preparation, new coating shall be applied in accordance with the manufacturer application instructions.

D. Method of coating application shall be as recommended by the coating manufacturer and approved by the City Representative. Each application of coating and paint shall be applied evenly, free of brush marks, sags, runs and no evidence of poor workmanship.

E. Application of the first coat should follow immediately after surface preparation and cleaning. In the event that the Contractor opts to leave a blasted surface uncoated for any extended period of time, a thorough inspection shall be performed to ensure the blast cleanliness has not degraded. In the event that this occurs, re-blasting shall be required.

F. Because of presence of moisture and possible contaminants in atmosphere, care shall be taken to ensure previously coated or painted surfaces are protected or recleaned prior to application of subsequent coats.

3.05 APPLICATION OF HEAT SHRINKABLE SLEEVES

A. The manufacturer representative shall be at the job site, at the beginning of the project, to supervise and train the installation crews. The manufacturer representative shall be a factory trained, and has applied the heat shrinkable sleeve for many years. Only workers, who have been trained by the representative of the heat shrinkable sleeve manufacturer, can install the heat shrinkable sleeve thereafter.

B. The steel surface shall be prepared and cleaned with hand tool or machine tool. The final surface cleanliness shall be as required by the heat shrinkable sleeve manufacturer. The installation shall be in accordance with applicable sections of AWWA-C216.

C. Select the proper torches and preheat the pipe. Maintain preheat temperature in the required range throughout installation of Shrink Sleeve.

D. Install the mastic filler material to fill transitions and changes in profile beneath the heat shrinkable sleeve.

E. Install the heat shrinkable sleeves in accordance with the instructions from the manufacturer. Trim off any damaged or curled coating resulting from preheating. At least 5-inches of shop-applied pipe coating shall be provided for overlap of the Shrink Sleeve. Heat the end of the Shrink Sleeve and attach it to the top of the pipe. Loosely fit the Shrink Sleeve over the joint, then warm and lay the closure strip on top of the previously attached end.

F. Begin heating the Shrink Sleeve at the center portion of the sleeve on the spigot side of the weld to conform it to the spigot and weld. Use a gloved hand or light roller pressure as required to gently push the sleeve into the base of the weld as the sleeve shrinks. Do not start shrinking the outer part of the sleeve until the center portion has been shrunk to conform to the weld around the entire circumference of the pipe.

G. Heat the remainder of the Shrink Sleeve outward from the center to shrink the sleeve onto the pipe. If the sleeve is wider than the holdback of the mortar coating, press the outer edges of the sleeve onto the face of the adjacent mortar. Do not create voids under the Shrink Sleeve adjacent to the mortar.

H. Never step on the field applied heat shrinkable sleeves or field applied coating until the sleeve has been cooled down or the coating has been cured.

I. Visually inspect the installed Shrink Sleeve to ensure that it is free of holes and tightly conforms to all surfaces along the contours of the pipe joint, especially at the weld and spigot.

Visual inspection on the heat shrinkable sleeves shall be as follows:

1. The edges of the sleeve are flat and not curled up away from the pipe.

2. There are no air bubbles beneath the sleeve.

3. The sleeve has been properly shrunk so there are no wrinkles.

4. There shall be a mastic bead of ½" - 1" visible completely around both edges. Failure to comply with this requirement will result in rejection.

J. After passing visual inspection, perform holiday detection on the installed Shrink Sleeve at 10,000 volts or higher as recommended by the manufacturer.

3.06 COATING AND LINING INSPECTIONS

A. QA Coating Inspector shall witness the surface cleanliness, measure the dry film thickness of the lining and coating system and monitor the ambient conditions.

B. All coated surfaces shall be bug hole and holiday free. The voltage shall be properly adjusted to detect any coating holiday. The voltage setting shall be as recommended by NACE SP0188.

C. Coating applicator shall follow the recommendations of the material supplier regarding various tests and implement those tests to verify the integrity of the applied lining and coating to his satisfaction. The City Representative or his/her representative shall be permitted full access at all times to observe and be satisfied that the specification is being followed.

D. The City Representative or his/her representative shall be given sufficient notice so as to be present, when the following hold points are reached:

1. Completion of surface preparation.

2. Prior to lining and coating application.

3. During wet and dry film thickness measurements.

4. Performing the holiday detection testing.

5. During lining and coating repairs.

E. The following quality control tests shall be performed with results recorded:

1. Compressed air quality per blotter test.

2. Environmental conditions prior to lining and coating application, including substrate temperature, ambient temperature, relative humidity and dew point.

3. Observation of surface preparation, including anchor pattern, prior to application.

4. Results of ratio check of plural component proportioning equipment, where applicable. The contractor shall perform ratio test daily prior to each application. A sample will be sprayed on plastic, than dated with the time of application and batch number. All pump gages shall be in working order prior to any application of product.

5. Wet and dry film thickness measurements.

6. High-voltage discontinuity testing to assure a “pinhole-free” lining and coating system shall be in accordance with NACE Standard RP0188, “Discontinuity (Holiday) Testing of Protective Coatings.”

7. Adhesion testing on steel substrate: When verification of adhesion is required, testing shall be done in accordance with ANSI/ASTM D4541 as modified by ANSI/AWWA C222, Standard for Polyurethane Coatings For The Interior and Exterior of Steel Water Pipe and Fittings (May 2018). Page 15, Section 5.5.5 Adhesion to steel. Testing and repairs will be performed as directed by the City Representative at no additional expense to the City.

8. Testing and repairs will be performed as directed by the City Representative at no additional expense to the City.

F. The multi-component lining/coating material shall be verified as to proper proportioning of materials at the start of each day and at any time of equipment malfunction before resuming operations. Any necessary site clean-up due to installing improperly reacted materials shall also be made at that time.

G. The following inspection equipment shall be utilized by the contractor for performing quality control testing:

1. Sling psychrometer

2. Surface temperature thermometer

3. Ambient temperature thermometer

4. Psychrometric charts for determining relative humidity and dew point

5. High range wet and dry film thickness gages such as the Positector 2000 or core sampling to determine thickness

6. Micrometer

7. Durometer, A Scale

8. Material retains

9. Inspection glass (30 power minimum)

10. High voltage holiday detector or low voltage holiday detector as applicable.

11. Ultrasonic coatings thickness tester

H. The lining and coating shall be 100% inspected for free of bug holes, holidays, voids, thin areas, runs, drips or sags. Any coating drip shall be properly ground off.

3.07 CURING OF PROTECTIVE COATING SYSTEM

A. The coated surfaces shall be protected from damage during curing.

3.08 COATING AND LINING REPAIR

A. Any defective or damaged areas of the coating shall be removed and repaired by the Contractor. The repair shall be performed by Coating Professional only. General labor will not be permitted to perform the coating and lining repair, Repair procedures shall be as recommended by the coating manufacturer. Surfaces to be repaired shall be roughened and cleaned free of contaminants.

B. Any repair shall be re-inspected for dry film thickness, uniformity per applicable sections of SSPC_PA2 and the coating shall be bug hole and holiday free before final acceptance by the City Representative.

3.09 SITE CLEANING

A. Cleanup: At the end of each workday, remove sand blasted material, rubbish, empty cans, rags, and other discarded materials from the work site.

B. After completing work, clean spattered surfaces. Remove spattered protective coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

3.10 WARRANTY INSPECTION

A. Warranty shall be provided for 3 years from the substantial completion for both labor and material.

B. All defective work shall be repaired in strict accordance with this specification and to the satisfaction of the City Representative.

3.11 QA COATING INSPECTION

A. According to Bid Item WD-26, the Contractor shall provide a NACE certified, Level 3 QA Coating Inspector, to perform coating inspections at the jobsite, as directed by the City Representative

B. The resume of the coating inspector shall be submitted for review and for approval by the City Representative.

END OF SECTION