

**SAN ANTONIO WATER SYSTEM
NACO LIME SLURRY SYSTEM PROJECT
SAWS PROJECT NO. 17-6007
SOLICITATION NO. CO-00138
ADDENDUM NO. 2**

August 25, 2017

This addendum, applicable to work designated above, is an amendment to the bidding documents and as such shall be a part of and included in the Contract. Acknowledge receipt of this addendum by entering the addendum number and issue date in the spaces provided on all submitted copies of the bidding documents.

1.0 Addenda Purpose

The purpose of this addendum is to issue a revision to the Contract Documents for the Naco Lime Slurry System Project (SAWS Project No. 17-6007).

2.0 Modifications to Part I – CONTRACT DOCUMENTS

- A. WAGE DECISION – DELETE the Wage Decision in its entirety and REPLACE with the Wage Decision provided in Addendum No. 2.

3.0 Modifications to Part II – TECHNICAL SPECIFICATIONS

- A. ADD the following Technical Specifications included with Addendum No. 2:
- Section 09900 Surface Preparation and Shop Prime Painting
 - Section 09902 Painting
- B. SECTION 11251 LIME SLURRY STORAGE AND FEED SYSTEM – ARTICLE 2.03.F – DELETE the first two sentences of this article and REPLACE with the following:
- “The interior surface shall be cleaned and left free of rust, scale, grease, dust, dirt, and debris. Provide coatings in accordance with Sections 09900 and 09902 for iron and steel components of tank and equipment above maximum liquid level (i.e. dome area and nozzles above overflow level).”
- C. SECTION 11251 LIME SLURRY STORAGE AND FEED SYSTEM – ARTICLE 2.06.A. (9&10) – ADD an “*” to the end of both items 9 & 10 to indicate that the capacity shall be selected based on optimizing the backwash cycles per the note in this Article.
- D. SECTION 11251 LIME SLURRY STORAGE AND FEED SYSTEM – ARTICLE 2.06.D – ADD the following sentence to the end of the paragraph:
- “The lime slurry storage and feed system manufacturer shall provide a water softener that provides the flow and hardness removal required and shall size the softener based on these requirements.”

- E. SECTION 11251 LIME SLURRY STORAGE AND FEED SYSTEM – ARTICLE 2.11.F.2.d – Lime slurry storage and feed system manufacturer’s standard unit or approved equal is acceptable.
- F. SECTION 11251 LIME SLURRY STORAGE AND FEED SYSTEM – ARTICLE 2.11.F.1.e – Lime slurry storage and feed system manufacturer’s standard unit or approved equal is acceptable.

4.0 Questions and Answers

- Q1: I noticed that there is no spec for the following items:
- Division 2 (concrete/rebar)
 - Metal Building
 - FRP Doors

Response: Sheet S1 of the Plans provides the requirements for concrete and rebar. All standard San Antonio Water System Specifications and City of San Antonio Standard Specifications related to the concrete and rebar shall apply as well.

Section 11251, Article 2.11 of the Technical Specifications shall be referenced for the metal building and FRP door requirements. The Pre-Engineered Metal Building and its components shall be provided by the lime slurry storage and feed system manufacturer.

- Q2: Looks like Pre-Engineered building will be provided by the Lime Supplier.

Response: Section 11251, Article 2.11 of the Technical Specifications shall be referenced for the metal building requirements. The Pre-Engineered Metal Building shall be provided by the lime slurry storage and feed system manufacturer.

- Q3: Since there is no door spec it is assumed that the FRP door will also be provided by the LS.

Response: Section 11251, Article 2.11 of the Technical Specifications shall be referenced for the metal building requirements. The Pre-Engineered Metal Building and its components shall be provided by the lime slurry storage and feed system manufacturer.

- Q4: Lime System specs references Spec 9900 and 9902 paint sections, neither spec sections are included.

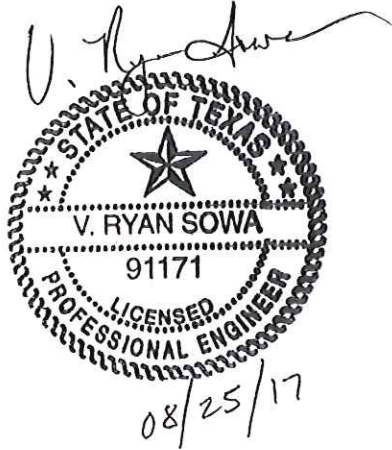
Response: Specification Sections 09900 and 09902 have been added to the Technical Specifications. Refer to Part III of this Addendum.

5.0 Clarifications

- A. Section 17300 – The Applications Services Supplier (ASP) shall provide all programming services for Top End HMI system and local PLCs.

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Naco Lime Slurry System Project
SAWS Project No. 17-6007
Solicitation No. C0-00138

- B. Section 17305 – The Applications Services Supplier (ASP) shall provide all programming services for Top End HMI system and local PLCs.



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END of ADDENDUM 2

This Addendum, including these three (3) pages, is twenty-seven (27) pages in its entirety including attachments.

Attachments: Wage Decision
Section 09900 – Surface Preparation and Shop Prime Painting
Section 09902 – Painting

General Decision Number: TX170280 08/18/2017 TX280

Superseded General Decision Number: TX20160280

State: Texas

Construction Type: Building

County: Bexar County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	01/27/2017
2	04/14/2017
3	04/21/2017
4	05/19/2017
5	06/02/2017
6	07/21/2017
7	08/18/2017

ASBE0087-014 01/01/2017

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Duct, Pipe and Mechanical System Insulation).....	\$ 22.22	10.02

BOIL0074-003 01/01/2017

	Rates	Fringes
BOILERMAKER.....	\$ 28.00	22.35

ELEC0060-003 06/01/2016

	Rates	Fringes
ELECTRICIAN (Communication Technician Only).....	\$ 21.57	9%+4.65

ELEC0060-004 06/01/2017		
	Rates	Fringes
ELECTRICIAN (Excludes Low Voltage Wiring).....	\$ 27.90	16%+4.85

ELEV0081-001 01/18/2017		
	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 38.14	31.585+a+b
FOOTNOTES:		
A. 6% under 5 years based on regular hourly rate for all hours worked. 8% over 5 years based on regular hourly rate for all hours worked.		
B. Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Friday after Thanksgiving Day; Christmas Day; and Veterans Day.		

ENGI0450-002 04/01/2014		
	Rates	Fringes
POWER EQUIPMENT OPERATOR Cranes.....	\$ 34.85	9.85

IRON0066-013 06/01/2015		
	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 21.30	5.95

IRON0084-011 06/01/2015		
	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 23.02	6.35

PLUM0142-009 07/01/2017		
	Rates	Fringes
HVAC MECHANIC (HVAC Electrical Temperature Control Installation Only).....	\$ 30.25	11.80
HVAC MECHANIC (HVAC Unit Installation Only).....	\$ 30.25	11.80
PIPEFITTER (Including HVAC Pipe Installation).....	\$ 30.25	11.80
PLUMBER (Excludes HVAC Pipe Installation).....	\$ 30.25	11.80

SFTX0669-002 04/01/2017

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 29.03	15.84

* SHEE0067-004 04/01/2017

	Rates	Fringes
Sheet metal worker Excludes HVAC Duct Installation.....	\$ 26.10	15.25
HVAC Duct Installation Only.....	\$ 26.10	15.25

SUTX2014-006 07/21/2014

	Rates	Fringes
BRICKLAYER.....	\$ 22.15	0.00
CARPENTER (Acoustical Ceiling Installation Only).....	\$ 17.83	0.00
CARPENTER (Form Work Only).....	\$ 13.63	0.00
CARPENTER, Excludes Acoustical Ceiling Installation, Drywall Hanging, Form Work, and Metal Stud Installation.....	\$ 16.86	4.17
CAULKER.....	\$ 15.00	0.00
CEMENT MASON/CONCRETE FINISHER....	\$ 22.27	5.30
DRYWALL FINISHER/TAPER.....	\$ 13.81	0.00
DRYWALL HANGER AND METAL STUD INSTALLER.....	\$ 15.18	0.00
ELECTRICIAN (Low Voltage Wiring Only).....	\$ 20.39	3.04
IRONWORKER, REINFORCING.....	\$ 12.27	0.00
LABORER: Common or General.....	\$ 10.75	0.00
LABORER: Mason Tender - Brick....	\$ 11.88	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 12.00	0.00
LABORER: Pipelayer.....	\$ 11.00	0.00
LABORER: Roof Tearoff.....	\$ 11.28	0.00

LABORER: Landscape and Irrigation.....	\$ 8.00	0.00
OPERATOR:		
Backhoe/Excavator/Trackhoe.....	\$ 15.98	0.00
OPERATOR: Bobcat/Skid		
Steer/Skid Loader.....	\$ 14.00	0.00
OPERATOR: Bulldozer.....		
	\$ 14.00	0.00
OPERATOR: Drill.....		
	\$ 14.50	0.00
OPERATOR: Forklift.....		
	\$ 12.50	0.00
OPERATOR: Grader/Blade.....		
	\$ 23.00	5.07
OPERATOR: Loader.....		
	\$ 12.79	0.00
OPERATOR: Mechanic.....		
	\$ 18.75	5.12
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....		
	\$ 16.03	0.00
OPERATOR: Roller.....		
	\$ 12.00	0.00
PAINTER (Brush, Roller and Spray), Excludes Drywall Finishing/Taping.....		
	\$ 13.07	0.00
ROOFER.....		
	\$ 12.00	0.00
TILE FINISHER.....		
	\$ 11.32	0.00
TILE SETTER.....		
	\$ 14.94	0.00
TRUCK DRIVER: Dump Truck.....		
	\$ 12.39	1.18
TRUCK DRIVER: Flatbed Truck.....		
	\$ 19.65	8.57
TRUCK DRIVER: Semi-Trailer Truck.....		
	\$ 12.50	0.00
TRUCK DRIVER: Water Truck.....		
	\$ 12.00	4.11

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide

employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that

classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

SECTION 09900
SURFACE PREPARATION AND SHOP PRIME PAINTING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required for the surface preparation and application of shop primers on ferrous metals, excluding stainless steels, as specified herein.

1.02 RELATED WORK

- A. Finish painting is included in Section 09902.

1.03 SUBMITTALS

- A. Submit, in accordance with Section 01300, shop drawings, manufacturer's specifications and data on the proposed primers and detailed surface preparation, application procedures and dry mil thicknesses.
- B. Submit representative physical samples of the proposed primers, if required by the Engineer.

1.04 REFERENCE STANDARDS

- A. The Society for Protective Coatings (SSPC)
 - 1. SSPC-SP 6/NACE No. 3 - Joint Surface Preparation Standard SSPC-SP 6/NACE No. 3: Commercial Blast Cleaning
 - 2. SSPC-SP 10/NACE No. 2 - Joint Surface Preparation Standard SSPC-SP 10/NACE No. 2: Near-White Blast Cleaning.
- B. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Submerged Surfaces - Shop primer for ferrous metals which will be in contact with water being treated, either submerged or which are subject to splash action or which are specified to be considered submerged service shall be shop primed with the following:
 - 1. Shop Prime Coat: (Zinc Micaceous Iron Oxide Polyurethane Aromatic Shop Primer)
 - a. TNE MEC: Series 1 Omnithane
 - b. Carboline: Carboguard 561
 - c. Sherwin-Williams Company (The): Corothane I Zinc Primer 1K Mio-Zinc.
 - d. PPG PMC Durathane MCZ 97-679 Series or PPG PMC Amerlock 400.
 - e. Or equal.

B. Non-Submerged Surfaces: Shop primer for ferrous metals which will not be in contact with water being treated, not submerged and not subject to splash action shall be shop primed with the following:

1. Shop Prime Coat: (Zinc Micaceous Iron Oxide Polyurethane Aromatic Shop Primer)
 - a. TNEMEC: Series 1 Omnithane
 - b. Carboline: Carboguard 561
 - c. Sherwin-Williams Company (The): Corothane I Zinc Primer 1K Mio-Zinc.
 - d. PPG PMC Durathane MCZ 97-679 Series or PPG PMC Amercoat 68HS
 - e. Or equal.

C. Submerged Surfaces

1. Shop Prime Coat for Ductile Iron Pipe: (Epoxy, Polyamidoamine Shop Primer)
 - a. TNEMEC: Series N140 Pota-Pox-Plus
 - b. Carboline: Carboguard 561
 - c. Sherwin-Williams Company (The): Macropoxy 846 NSF Winter Grade Epoxy Mill White
 - d. PPG PMC Aquapon HB Potable Water Epoxy Coating 95-132 Series or PPG PMC Amerlock 2 Epoxy.
 - e. Or equal.
2. Shop Prime Coat for Ferrous Metal Surfaces: (Zinc Micaceous Iron Oxide Polyurethane Aromatic Shop Primer)
 - a. TNEMEC: Series 1 Omnithane
 - b. Carboline: Carboguard 561
 - c. Sherwin-Williams Company (The): Corothane I Zinc Primer 1K Mio-Zinc.
 - d. PPG PMC Durathane MCZ 97-679 Series
 - e. Or equal.

D. Non-Primed Surfaces - Gears, bearings surfaces and other similar surfaces obviously not to be painted shall be given a heavy shop coat of grease or other suitable rust-resistant coating. This coating shall be maintained as necessary to prevent corrosion during all periods of storage and erection and shall be satisfactory to the Engineer up to the time of the final acceptance test.

E. Compatibility of Coating Systems - Shop priming shall be done with primers that are guaranteed by the manufacturer to be compatible with their corresponding primers and finish coats specified in Section 09902 for use in the field and which are recommended for use together.

PART 3 EXECUTION

3.01 APPLICATION

A. Surface Preparation and Priming

1. Non-submerged components scheduled for priming, as defined above, shall be blast cleaned in accordance with SSPC-SP 6/NACE No. 3, immediately prior to priming. Submerged components scheduled for priming, as defined above, shall be blast cleaned in

accordance with SSPC-SP 10/NACE No. 2, immediately prior to priming. Consult manufacturer regarding required surface profiles.

2. Surfaces shall be dry and free of dust, oil, grease and other foreign material before priming.
3. Shop prime in accordance with approved manufacturer's recommendations.

B. Non-Primed Surfaces

1. Apply approved coating per manufacturer's recommendations.

3.02 FABRICATED ITEMS

- A. All items to be shop primed shall be blast cleaned as specified for applicable service prior to priming. If, in the opinion of the Engineer, any prime coating that has been improperly applied or if material contrary to this Section has been used, that coating shall be removed by abrasive blasting to white metal and re-primed in accordance with this Section.
- B. All shop prime coats shall be of the correct materials and applied in accordance with this Section. Remove any prime coats not in accordance with this Section by blast cleaning and apply the specified prime coat at no additional cost to the Owner.
- C. Shop primed surfaces shall be cleaned thoroughly and damaged or bare spots prepared as approved and retouched with the specified primer before the application of successive paint coats in the field.
- D. Shop finish coats, if proposed and allowed, shall be equal in appearance and protection quality to a field applied finish coat. If, in the opinion of the Engineer, a shop finish coat system does not give the appearance and protection quality of other work of similar nature, prepare the surfaces and apply the coat or coats of paint as directed by the Engineer to accomplish the desired appearance and protection quality. Submit to the Engineer substantial evidence that the standard finish is compatible with the specified finish coat.
- E. Properly protect the shop prime and finish coats against damage from weather or any other cause.
- F. Wherever fabricated equipment is required to be blast cleaned, protect all motors, drives, bearings, gears, etc., from the entry of grit. Equipment found to contain grit shall be promptly and thoroughly cleaned.

END OF SECTION

SECTION 09902
PAINTING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required and install all painting complete as shown on the Drawings and as specified herein.
- B. It is the intent of this Section to paint all exposed structural and miscellaneous steel; chemical tanks and systems; mechanical and electrical equipment; sluice gates, operators and posts; conveying systems, pipe, fittings and valves; electrical conduit and appurtenances; new CMU walls; exposed interior ducts; all as specified in the attached painting schedules and all other work obviously required to be painted unless otherwise specified. Minor items not mentioned in the schedule of work shall be included in the work of this Section where they come within the general intent of this Section as stated herein.
- C. Aluminized steel, above roof level, for stacks - Paint with silicone aluminum as specified. Other aluminum-paint only where noted (as is specified). Paint items so noted in Paragraph 1.01.B and in accordance with the Painting Schedule. Provide vinyl film letters and numbers for markings as specified. Items noted in other Specification Sections as having factory finish and other factory finished items are obviously not field painted. The Contractor is responsible for having damaged factory finish painted items repaired or, if so ordered, for replacing items. The various Sections are responsible, as stated in each, for preparation and field touch-up of abrasions, welds and damaged primed areas of primed or galvanized components after erection.
- D. The following items will not be painted:
 - 1. Concrete except where specified above and scheduled to be painted and seamless flooring.
 - 2. Stainless steel louvers, doors and frames.
 - 3. Finish hardware.
 - 4. Non-ferrous metals and stainless steel, unless specifically noted otherwise.
 - 5. Factory pre-finished architectural components.
 - 6. Packing glands and other adjustable parts and name plates of mechanical equipment.
 - 7. Parts of buildings not exposed to sight, unless specifically noted otherwise.
 - 8. Maintenance equipment
 - 9. Plumbing fixtures.
 - 10. Mechanical, HVAC, Plumbing and Electrical equipment which has been finished painted in the factory as specified in Divisions 11, 13, and 15.

1.02 RELATED WORK

- A. Shop priming and surface preparation of equipment and piping (except copper piping) are specified in Section 09900 and included in the respective Section with the item to be primed.
- B. Shop priming of metal substrates with primers is included in Division 5.

1.03 SUBMITTALS

- A. Submit the following in accordance with Section 01300.
- B. Product Data: For each type of product indicated.
- C. Samples: Submit the following for each type of coating system and in each color and gloss of finish coat indicated.
 - 1. Color cards for initial color selections.
 - 2. Three sets of 8-inch by 8-inch samples, on 1/4-inch hardboard, of all colors required for all types of paint. Re-submit until approved.
- D. Product List: For each product indicated. Cross-reference products to coating system and locations of application areas. Use same designations indicated on Drawings and in schedules.

1.04 REFERENCE STANDARDS

- A. Steel Structures Painting Council (SSPC)
 - 1. SSPC SP-1 - Surface Preparation Specification No. 1 Solvent Cleaning.
 - 2. SSPC SP-2 - Surface Preparation Specification No. 2 Hand Tool Cleaning.
- B. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 degrees F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.06 PROJECT CONDITIONS

- A. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 50 and 95 degrees F.
- B. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.

1.07 EXTRA MATERIALS

- A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.
 - 1. Quantity: Furnish an additional 5 percent, but not less than 1 gallon of each material and color applied.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers: Provide products by one of the following.
 - 1. Tnemec, Inc. (TN).
 - 2. The Sherwin Williams Company (SW).
 - 3. PPG Architectural Finishes, Inc. (PPG).
 - 4. PPG Architectural Finishes, Inc. Ameron (AME).
 - 5. Carboline (CB).
 - 6. Or equal.

2.02 MATERIALS

- A. Material Compatibility
 - 1. Provide materials for use within each coating system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. Provide products of same manufacturer for each coat in a coating system.
- B. All painting materials shall be delivered to the work site in unbroken packages, bearing the manufacturer's brand and name. They shall be used without adulteration and mixed, thinned and applied in strict accordance with manufacturer's directions for the applicable materials and surface and with the Engineer's approval before using.
- C. Shop priming shall be done with primers that are guaranteed by the manufacturer to be compatible with the finish paints to be used. Refer to Section 09900 for special primers.
- D. Work areas will be designated by the Engineer for storage and mixing of all painting materials. Materials shall be in full compliance with the requirements of pertinent codes and fire regulations. Proper containers outside of the buildings shall be provided and used for painting wastes and no plumbing fixture shall be used for this purpose.
- E. Colors: As selected by Engineer/Architect from manufacturer's full range.

2.03 COLOR CODING FOR PIPES AND EQUIPMENT

- A. The color code establishes, defines, and assigns a definite color for each process system. All elements which are an integral part of the system, that is originating from the equipment and/or supplying the equipment, shall be painted between and up to but not including the fixed flanges nor the flexible conduit connections on the equipment. Valves and fittings shall be painted in the color of the main body of the pipe.
- B. All pipes and equipment shall be painted with final coat color selected by the Engineer and shall be treated as an integral part of the Contract.
- C. All hanger saddles and pipe support floor stands shall be painted the same color and with the same paint as the pipe it supports. Hanger rods and hanger rod connections to building structure shall be painted to match the color of the wall or ceiling to which it is attached.

2.04 LETTERING OF TITLES

- A. The name of the materials in each pipeline and alongside this an arrow indicating the direction of flow of fluids, shall be indicated on each pipe system. Titles shall not be located more than 26 linear feet apart and shall also appear directly adjacent to each side of any wall the pipeline breaches, adjacent to each side of the valve regulator, flowcheck, strainer cleanout and all pieces of equipment.
- B. Titles shall identify the contents by complete name at least once in each space through which it passes and thereafter by generally recognized abbreviations, letters or numerals as approved. Identification title locations shall be determined by the Engineer but in general they shall be placed where the view is unobstructed and on the two lower quarters of pipe or covering where they are overhead. Title should be clearly visible from operating positions especially those adjacent to control valves.
- C. Numbers and letters shall be die-cut from 3.5 mil vinyl film and pre-spaced on carrier tape. Adhesive and finish surface shall be protected with one piece removable liners. Color shall be white or black as approved depending on substrate color.
- D. Letter size shall be as indicated in the following table:

OUTSIDE DIAMETER OF PIPE OR COVERING	SIZE OF LEGEND LETTERS
3/4-in. to 1-1/4-in.	1/2-in.
1-1/2-in. to 2-in.	3/4-in.
2-1/2-in. to 6-in.	1-1/2-in.
8-in. to 10-in.	2-1/2-in.
Over 10-in.	3-in.

- E. The system for preparation and application of letters shall be Type B a.s.i/2 by ASI Sign Systems; Architectural Graphics Inc.; or equal. Letter type shall be Optima Bold, upper case. Grid 2 spacing shall be employed. Arrow shall match as approved, letter type and size. The instructions of the manufacturer shall be followed in respect to storage, surface preparation and applications of letters.

2.05 TITLES FOR EQUIPMENT

- A. Titles shall be provided in vinyl film as specified above on all equipment using 1-inch-high Optima Bold upper case, Grid 2 spacing, white or black in color as approved depending on substrate. Use titles shown on mechanical drawings for bidding purposes. Titles shall be mounted at eye level on machines where possible or at the upper most broad vertical surface of low equipment. Where more than one piece of the equipment item to be titled exists, the items shall be numbered consecutively as indicated on the mechanical drawings or as directed by the Engineer; for example, Pump No. 1, Pump No. 2, etc. Titles shall be composed in more than one line if required and justified on the left hand side as approved.

2.06 TESTING EQUIPMENT

- A. Furnish to the Engineer for use on the Project for paint inspection, wet and dry film thickness gauges and all other equipment required by the Engineer for inspection.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
 - 1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows.
 - a. Concrete: 12 percent.
 - b. Masonry (Clay and CMU): 12 percent.
 - c. Wood: 15 percent.
 - d. Gypsum Board: 12 percent.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 - 4. Coating application indicates acceptance of surfaces and conditions.

3.02 PREPARATION

- A. All surfaces to be painted shall be prepared as specified herein and shall be dry and clean before painting. Special care shall be given to thoroughly clean interior concrete and CMU surfaces to receive polyamide cured epoxy paint of all marks before application of finish.
- B. All metal welds, blisters, etc., shall be ground and sanded smooth. All pits and dents shall be filled and all imperfections shall be corrected so as to provide a smooth surface for painting. All rust, loose scale, oil, tar and asphalt bearing coatings, grease and dirt shall be removed by use of approved solvents, wire brushing, grinding or sanding.

- C. Concrete surfaces shall have been finished as specified in Division 3. Report unsatisfactory surfaces to the Engineer. Concrete shall be left for one month minimum before painting and shall be free of dust, oil, curing compounds, and other foreign matter.
- D. Concrete masonry unit surfaces shall be smooth and cleaned of all dust, loose mortar, and other foreign matter.
- E. All PVC pipe and other plastic matrix surfaces to be painted shall be sanded to an approved profile and cleaned of residue before painting.
- F. All PVC pipe and other plastic matrix surfaces to be painted shall be lightly sanded and cleaned of residue before painting.
- G. Galvanized, aluminum, and copper surfaces shall have all oxidation and foreign material removed before painting by SSPC SP-1, using an approved V.O.C. compliant method. Galvanized and, when ordered, the other metal surfaces specified above shall be hand tool cleaned to SSPC SP-2 standards to provide a uniform 1 mil surface profile.

3.03 WORKMANSHIP

A. General

1. At the request of the Engineer, sample areas of the finished work prepared in strict accordance with this Section shall be furnished and all painting shall be equal in quality to the approved sample areas. Finished areas shall be adequate for the purpose of determining the quality of workmanship. Experimentation with factory or paint manufacturer's warehouse mixed colors shall be furnished to the satisfaction of the Engineer where standard chart colors are not satisfactory.
2. Protection of furniture and other movable objects, equipment, fittings and accessories shall be provided throughout the painting operation. Canopies of lighting fixtures shall be loosened and removed from contact with surface, covered and protected and reset upon completion. Remove all electric plates, surface hardware, etc., before painting, protect and replace when completed. Mask all machinery name plates and all machined parts not receiving a paint finish. Dripped or spattered paint shall be promptly removed. Lay drop cloths in all areas where painting is being done to adequately protect flooring and other work from all damage during the operation and until the finished job is accepted.
3. On metal surfaces apply each coat of paint at the rate specified by the manufacturer to achieve the minimum dry mil thickness required. If material has thickened or must be diluted for application by spray gun, the coating shall be built up to the same film thickness achieved with undiluted material. One gallon of paint as originally furnished by the manufacturer shall not cover a greater area when applied by spray gun than when applied unthinned by brush. Deficiencies in film thickness shall be corrected by the application of an additional coat(s). On masonry, application rates will vary according to surface texture; however, in no case shall the manufacturer's stated coverage rate be exceeded. On porous surfaces, it shall be the painter's responsibility to achieve a protective and decorative finish either by decreasing the coverage rate or by applying additional coats of paint.

B. Field Priming

1. Steel members, metal castings, mechanical and electrical equipment and other metals which are shop primed before delivery at the site will not require a prime coat on the job. All piping and other bare metals to be painted shall receive one coat of primer before exposure to the weather, and this prime coat shall be the first coat as specified in the painting schedule. Surface preparation of bare metal shall be the responsibility of the Contractor.
2. Equipment which is specified to receive a baked-on enamel finish or other factory finish shall not be field painted unless the finish has been damaged in transit or during installation. Surfaces that have been shop painted and have been damaged, or where the shop coat or coats of paint have deteriorated, shall be properly cleaned and retouched before any successive painting is done on them in the field. All such field painting shall match as nearly as possible the original finish. Preparation and painting shall be provided by the Contractor.
3. Equipment shipped with a protective shop painting coat or coats shall be touched up to the satisfaction of the Engineer with primers as recommended by the manufacturer of the finish paint. Preparation and painting shall be provided by the Contractor.

C. Field Painting

1. All painting at the site shall be under the strict inspection of the Engineer. Only skilled painters and, where dictated by special conditions or systems and so ordered, specialist painters shall be used on the work.
2. All paint shall be at room temperature before applying, and no painting shall be done when the temperature is below 60 degrees F, in dust-laden air, when rain or snow is falling, or until all traces of moisture have completely disappeared from the surface to be painted.
3. Successive coats of paint shall be different shades (from paint manufacturer's stock or shop mixed paint) of the required colors so as to make each coat easily distinguishable from each other with the final undercoat the approximate shade of the finished coat to ensure no show-through as approved.
4. Finish surfaces shall not show brush marks or other irregularities. Undercoats shall be thoroughly and uniformly sanded with the type paper appropriate for the undercoats to remove defects and provide a smooth even surface. Top and bottom edges of doors shall be painted.
5. Painting shall be continuous and shall be accomplished in an orderly manner so as to facilitate inspection. Materials subject to weather shall be primed coated as quickly as possible. Surfaces of exposed members that will be inaccessible after erection shall be cleaned and painted before erection.
6. All painting shall be performed by approved methods with number of coats modified as required to obtain the total dry film thickness specified. Spray painting shall be performed specifically by methods submitted and as approved by the Engineer.

7. All surfaces to be painted as well as the atmosphere in which painting is to be done shall be kept warm and dry by heating and ventilation, if necessary, until each coat of paint has hardened. Any defective paint shall be scraped off and repainted in accordance with the Engineer's directions.
8. Before final acceptance of the work, all damaged surfaces of paint shall be cleaned and repainted as directed by the Engineer.
9. Only the aluminum work noted on the Drawings or in the Painting Schedule shall be field painted.

3.04 FIELD QUALITY CONTROL

- A. Owner reserves the right to invoke the following procedure at any time and as often as Owner deems necessary during the period when coatings are being applied:
 1. Owner will engage the services of a qualified testing agency to sample coating material being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
 2. Testing agency will perform tests for compliance with specified requirements.
 3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with specified requirements. Contractor shall remove noncomplying coating materials from Project site, pay for testing, and recoat surfaces coated with rejected materials. Contractor will be required to remove rejected materials from previously coated surfaces if, on recoating with complying materials, the two coatings are incompatible.

3.05 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Engineer, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

3.06 PAINTING SCHEDULE

- A. All colors will be selected by the Owner and Engineer.
- B. The following types of paints by PPG Protective & Marine Coatings, (PPG PMC); Tnemec Co. (TN) and The Sherwin Williams Company (SW) have been used as a basis for the paint schedule.

1. Epoxy
 - a. TN: Hi-build Epoxoline II (Series N69).
 - b. SW: Macropoxy 646.
 - c. PPG PMC: Pitt-Guard 97-145 Series Epoxy Mastic.
 - d. AME: Amerlock 2/400 Series Epoxy.
 - e. CB: Carboguard 60.
 - f. Or equal.

2. Waterborne Cementitious Acrylic
 - a. TN: Envirofil (No. 130-6602 off-white color).
 - b. SW: Cement-Plex 875.
 - c. PPG: Cementitious Waterproofing Block Filler 95-217 Series.
 - d. AME: Amerlock 400 BF Epoxy Block Filler.
 - e. CB: Sanitile 600.
 - f. Or equal.

3. High-Build Acrylic Polyurethane Enamel
 - a. TN: Endura-Shield III - semi-gloss (Series V73).
 - b. SW: Acrolon 218 HS.
 - c. PPG: Pitthane HB Semigloss Urethane 95-8800 Series.
 - d. AME: Amercoat 450H SG Polyurethane.
 - e. CB: Carbothane 134HG.
 - f. Or equal.

4. High Heat Silicone Aluminum (to 600 degrees F)
 - a. TN: Silicone Aluminum (No. 39-661).
 - b. SW: Kem Hi-Temp No. 850.
 - c. PPG: Speedhide 6-220 Series Silicone Aluminum Coating.
 - d. AME: Amercoat 878 Silicone Aluminum Coating.
 - e. CB: Thermaline 4700 Aluminum.
 - f. Or equal.

5. Tie Coat, Low VOC, Epoxy
 - a. TN: FC Typoxy (Series V27).
 - b. SW: Macropoxy HS.
 - c. PPG: Pitt-Guard Epoxy Mastic 95-245 Series.
 - d. AME: Amercoat 385 Multi-purpose Epoxy.
 - e. Or equal.

6. Acrylic Latex Emulsion, Eggshell Finish
 - a. TN: Tneme-Cryl (Series 6).
 - b. SW: DTM Primer Finish.
 - c. PPG: Pitt-tech Plus 90-1110 Series Satin DTM Acrylic.
 - d. AME: Amercoat 220 Waterborne Acrylic.
 - e. CB: Sanitile 155.
 - f. Or equal.

7. Vinyl Acrylic Surface Sealer
 - a. TN: PVA Sealer (No. 51-792).
 - b. SW: Prep-Rite 200 Primer.

- c. PPG: Speedhide 6-2 Vinyl Acrylic Drywall Primer.
 - d. AME: Amercoat 148 Acrylic Primer.
 - e. CB: Sanitile 120.
 - f. Or equal.
- C. The following surfaces shall have the types of paint scheduled below applied at the dry film thickness (DFT) in mils per coat noted.
1. Exterior non-submerged ferrous metals (except first coat-hollow metal-pressed metal work).
 - a. First Coat: On properly prepared unprimed metal or for touch-up.
 - 1) TN: No. N69 (white in color) (3.0-4.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
 - b. Second Coat
 - 1) TN: Series N69 (4.0 DFT).
 - 2) SW: Acrolon 218 HS (3.0-6.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
 - c. Third Coat
 - 1) TN: Series V73 (3.0 DFT).
 - 2) SW: Acrolon 218 HS (3.0-6.0 DFT).
 - 3) PPG: Pitthane HB Semigloss Urethane 95-8800 Series.
 - 4) AME: Amercoat 450H SG Polyurethane.
 - 5) CB: Carbothane 134 HG.
 - 6) Or equal.
 2. Interior non-submerged concrete scheduled for painting.
 - a. First and Second Coats
 - 1) TN: Series N69 (4.0-5.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
 3. Interior concrete masonry units.
 - a. First Coat
 - 1) TN: No. 130-6602 (80 sq. ft./gal. minimum scrub-in to fill voids as approved).
 - 2) SW: Cement-Plex 875 (50-100 s.f./gl.).
 - 3) PPG: Cementitious Waterproofing Block Filler 95-217 Series.
 - 4) AME: Amerlock 400 BF Epoxy Block Filler.
 - 5) CB: Sanitile 600.
 - 6) Or equal.

- b. Second and Third Coats
 - 1) TN: Series N69 (5.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
4. Interior non-submerged ferrous metals (except first coat of previously painted metal work), on properly prepared unprimed metal or for touch-up.
 - a. First Coat
 - 1) TN: No. N69 (white in color) (3.0-4.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
 - b. Second and Third Coats
 - 1) TN: Series N69 (3.0-4.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) PPG: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
5. Submerged ferrous metals and ferrous metals subject to submersion or splashing. Surface shall be lightly sanded or abraded before application of first field coat.
 - a. First and Second Coats
 - 1) TN: Series N69 (6.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) PPG: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
6. Plastic piping and, where scheduled to be painted, plastic components.
 - a. First and Second Coats
 - 1) TN: Series N69 (3.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
7. Previously painted existing concrete/CMU scheduled for painting.
 - a. First Coat
 - 1) TN: Series 113 (3.0-4.0 DFT).
 - 2) SW: Epo-Plex Multi-Mil (4.0-6.0 DFT).
 - 3) PPG: Aquapon WB Epoxy 98-1 Series.
 - 4) AME: Amercoat 335 WB Epoxy.

- 5) CB: Sanitile 555.
 - 6) Or equal.
 - b. Second Coat
 - 1) TN: Series 297 (2.0-2.5 DFT).
 - 2) SW: Epo-Plex Multi-Mil (4.0-6.0 DFT).
 - 3) PPG: Aquapon WB Epoxy 98-1 Series.
 - 4) AME: Amercoat 335 WB Epoxy.
 - 5) CB: Sanitile 555.
 - 6) Or equal.
8. Existing precast concrete plank ceilings scheduled to be painted.
 - a. First and Second Coats
 - 1) TN: Series 113 (3.0-4.0 DFT).
 - 2) SW: Epo-Plex Multi-Mil (4.0-6.0 DFT).
 - 3) PPG: Aquapon WB Epoxy 98-1 Series.
 - 4) AME: Amercoat 335 WB Epoxy.
 - 5) CB: Sanitile 555.
 - 6) Or equal.
9. Pipe insulation (plastic or metal sheathed insulation-paint as scheduled for appropriate substrate).
 - a. First Coat
 - 1) TN: No. 51-792 (Vinyl-Acrylic Sealer - 1.0 DFT).
 - 2) SW: Prep-Rite 200 (1.1 DFT), Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Speedhide 6-2 Vinyl Acrylic Drywall Primer.
 - 4) AME: Amercoat 148 Acrylic Primer.
 - 5) CB: Sanitile 120.
 - 6) Or equal.
 - b. Second and Third Coats
 - 1) TN: Series N69 (3.0 DFT).
 - 2) SW: Prep-Rite 200 (1.1 DFT), Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
10. Aluminum designated to be painted (mechanically abrade surfaces to a uniform profile of 1 to 2 mils and clean completely).
 - a. First and Second Coats (Interior)
 - 1) TN: Series N69 (3.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
 - b. First Coat (Exterior)
 - 1) TN: Series N69 (4.0 DFT), one coat Series V73 (3.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT), Acrolon 218 HS (3.0-6.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.

- 5) CB: Carboguard 60.
 - 6) Or equal.
11. Copper piping.
- a. First and Second Coats
 - 1) TN: Series N69 (3.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
12. Hot ferrous metal surfaces.
- a. First and Second Coats
 - 1) TN: Series 39-661 (1.5 DFT).
 - 2) SW: Kem Hi-Temp 850 (Primer 1.1 DFT / Topcoat 1.0-1.2 DFT).
 - 3) PPG: Speedhide 6-220 Series Silicone Aluminum Coating.
 - 4) AME: Amercoat 878 Silicone Aluminum Coating.
 - 5) Or equal.
13. Previously painted metal surfaces - First coat on substrates prepared as approved and replacing first coat of above-specified systems. Complete painting with remainder of specified system for each type of substrate.
- a. First Coat
 - 1) TN: FC Typoxy Series V27 (5 DFT).
 - 2) SW: Macropoxy HS (3.0-6.0 DFT).
 - 3) PPG: Pitt-Guard 97-145 Series Epoxy Mastic.
 - 4) AME: Amerlock 2/400 Series Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
14. Galvanized steel surfaces (mechanically abrade surfaces to a uniform profile of 1 to 2 mils and clean completely).
- a. First Coat
 - 1) TN: Series V27 (3.0 to 4.0 DFT).
 - 2) SW: Macropoxy 646 (5.0-10.0 DFT).
 - 3) PPG: Pitt-Guard Epoxy Mastic 95-245 Series.
 - 4) AME: Amercoat 385 Multi-purpose Epoxy.
 - 5) CB: Carboguard 60.
 - 6) Or equal.
 - b. Second Coat
 - 1) TN: Series V73 (2.5 to 3.5 DFT).
 - 2) SW: Acrolon 218 HS (3.0-6.0 DFT).
 - 3) PPG: Pitthane HB Semigloss Urethane 95-8800 Series.
 - 4) AME: Amercoat 450H SG Polyurethane.
 - 5) CB: Carbothane 134HG.
 - 6) Or equal.
 - 7)

15. Gypsum work.
 - a. First Coat
 - 1) TN: No. 51-792 (1.0 DFT).
 - 2) SW: PrepRite 200 Primer (1.1 DFT).
 - 3) PPG: Speedhide 6-2 Vinyl Acrylic Drywall Primer.
 - 4) AME: Amercoat 148 Acrylic Primer.
 - 5) CB: Sanitile 120.
 - 6) Or equal.
 - b. Second and Third Coats
 - 1) TN: Series 6 (3.0 DFT).
 - 2) SW: DTM Primer-Finish (2.5-5.0 DFT).
 - 3) PPG: Pitt-tech Plus 90-1110 Series Satin DTM Acrylic.
 - 4) AME: Amercoat 220 Waterborne Acrylic.
 - 5) CB: Sanitile 155.
 - 6) Or equal.

END OF SECTION