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SECTION 09 90 00
PAINTS AND COATINGS

PART 1 GENERAL

1.1 RELATED REQUIREMENTS

1.1.1 Painting Included

Where a space or surface is indicated to be painted, include the following unless indicated otherwise.

- a. Surfaces behind portable objects and surface mounted articles readily detachable by removal of fasteners, such as screws and bolts.
- b. New factory finished surfaces that require identification or color coding and factory finished surfaces that are damaged during performance of the work.
- c. Existing coated surfaces that are damaged during performance of the work.

1.1.1.1 Exterior Painting

Includes new surfaces of the building and appurtenances. Also included are existing coated surfaces made bare by cleaning operations.

1.1.1.2 Interior Painting

Includes new surfaces of the building and appurtenances as indicated and existing coated surfaces made bare by cleaning operations. Where a space or surface is indicated to be painted, include the following items, unless indicated otherwise.

- a. Exposed columns, girders, beams, joists, and metal deck; and
- b. Other contiguous surfaces.

1.1.2 Painting Excluded

Do not paint the following unless indicated otherwise.

- a. Surfaces concealed and made inaccessible by panelboards, fixed ductwork, machinery, and equipment fixed in place.
- b. Surfaces in concealed spaces. Concealed spaces are defined as enclosed spaces above suspended ceilings, furred spaces, attic spaces, crawl spaces, elevator shafts and chases.
- c. Steel to be embedded in concrete.
- d. Copper, stainless steel, aluminum, anodized aluminum, brass, and lead except existing coated surfaces.
- e. Hardware, fittings, and other factory finished items.

1.1.3 Mechanical and Electrical Painting

Includes field coating of interior and exterior new surfaces.

- a. Where a space or surface is indicated to be painted, include the following items unless indicated otherwise.
 - (1) Exposed piping, conduit, and ductwork;
 - (2) Supports, hangers, air grilles, and registers;
 - (3) Miscellaneous metalwork and insulation coverings.
- b. Do not paint the following, unless indicated otherwise:
 - (1) New zinc-coated, aluminum, and copper surfaces under insulation
 - (2) New aluminum jacket on piping
 - (3) New interior ferrous piping under insulation.

1.1.3.1 Fire Extinguishing Sprinkler Systems

Provide paint and labeling in accordance with MIL-STD-101 except as modified by UFC 3-600-01.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)

ACGIH 0100 (2017; Suppl 2020) Documentation of the Threshold Limit Values and Biological Exposure Indices

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME A13.1 (2023) Scheme for the Identification of Piping Systems

ASTM INTERNATIONAL (ASTM)

ASTM D235 (2022) Standard Specification for Mineral Spirits (Petroleum Spirits) (Hydrocarbon Dry Cleaning Solvent)

ASTM D523 (2014; R 2018) Standard Test Method for Specular Gloss

ASTM D4263 (1983; R 2018) Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method

ASTM D4444 (2013; R 2018) Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters

ASTM D6386 (2022) Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting

ASTM F1869 (2023) Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)

Intelligence Bulletin 65 (2013) Occupational Exposure to Carbon Nanotubes and Nanofibers

MASTER PAINTERS INSTITUTE (MPI)

MPI 1 (2012) Aluminum Paint
MPI 3 (2016) Primer, Alkali Resistant, Water Based
MPI 4 (2016) Interior/Exterior Latex Block Filler
MPI 9 (2016) Alkyd, Exterior Gloss (MPI Gloss Level 6)
MPI 17 (2016) Primer, Bonding, Water Based
MPI 23 (2015) Primer, Metal, Surface Tolerant
MPI 44 (2016) Latex, Interior, (MPI Gloss Level 2)
MPI 47 (2016) Alkyd, Interior, Semi-Gloss (MPI Gloss Level 5)
MPI 50 (2015) Primer Sealer, Latex, Interior
MPI 52 (2016) Latex, Interior, (MPI Gloss Level 3)
MPI 54 (2016) Latex, Interior, Semi-Gloss (MPI Gloss Level 5)
MPI 72 (2016) Polyurethane, Two-Component, Pigmented, Gloss (MPI Gloss Level 6-7)
MPI 76 (2016) Primer, Alkyd, Quick Dry, for Metal
MPI 77 (2015) Epoxy, Gloss
MPI 79 (2016) Primer, Alkyd, Anti-Corrosive for Metal
MPI 94 (2016) Alkyd, Exterior, Semi-Gloss (MPI Gloss Level 5)
MPI 95 (2015) Primer, Quick Dry, for Aluminum
MPI 101 (2016) Primer, Epoxy, Anti-Corrosive, for Metal
MPI 107 (2016) Primer, Rust-Inhibitive, Water Based
MPI 108 (2015) Epoxy, High Build, Low Gloss
MPI 116 (2012) Block Filler, Epoxy
MPI 134 (2015) Primer, Galvanized, Water Based
MPI 138 (2016) Latex, Interior, High Performance Architectural, (MPI Gloss Level 2)
MPI 139 (2016) Latex, Interior, High Performance Architectural, (MPI Gloss Level 3)
MPI 140 (2016) Latex, Interior, High Performance Architectural,

| | |
|--------------|--|
| | (MPI Gloss Level 4) |
| MPI 141 | (2016) Latex, Interior, High Performance Architectural, Semi-Gloss (MPI Gloss Level 5) |
| MPI 144 | (2016) Latex, Interior, Institutional Low Odor/VOC, (MPI Gloss Level 2) |
| MPI 145 | (2016) Latex, Interior, Institutional Low Odor/VOC, (MPI Gloss Level 3) |
| MPI 146 | (2016) Latex, Interior, Institutional Low Odor/VOC, (MPI Gloss Level 4) |
| MPI 147 | (May 2016) Latex, Interior, Institutional Low Odor/VOC, Semi-Gloss (MPI Gloss Level 5) |
| MPI 149 | (2016) Primer Sealer, Interior, Institutional Low Odor/VOC |
| MPI 153 | (2016) Light Industrial Coating, Interior, Water Based, Semi-Gloss (MPI Gloss Level 5) |
| MPI 163 | (2016) Light Industrial Coating, Exterior, Water Based, Semi-Gloss (MPI Gloss Level 5) |
| MPI 164 | (2016) Light Industrial Coating, Exterior, Water Based, Gloss (MPI Gloss Level 6) |
| MPI ASM | (2019) Architectural Painting Specification Manual |
| MPI GPS-1-14 | (2014) Green Performance Standard GPS-1-14 |
| MPI GPS-2-14 | (2014) Green Performance Standard GPS-2-14 |
| MPI MRM | (2015) Maintenance Repainting Manual |

SOCIETY FOR PROTECTIVE COATINGS (SSPC)

| | |
|-----------------------|---|
| SSPC 7/NACE No.4 | (2007) Brush-Off Blast Cleaning |
| SSPC Glossary | (2011) SSPC Protective Coatings Glossary |
| SSPC PA 1 | (2024) Shop, Field, and Maintenance Coating of Metals |
| SSPC QP 1 | (2019) Standard Procedure for Evaluating the Qualifications of Industrial/Marine Painting Contractors (Field Application to Complex Industrial Steel Structures and Other Metal Components) |
| SSPC SP 1 | (2015) Solvent Cleaning |
| SSPC SP 2 | (2018) Hand Tool Cleaning |
| SSPC SP 3 | (2018) Power Tool Cleaning |
| SSPC SP 6/NACE No.3 | (2007) Commercial Blast Cleaning |
| SSPC SP 10/NACE No. 2 | (2015) Near-White Blast Cleaning |

| | |
|------------------------|---|
| SSPC VIS 1 | (2002; E 2004) Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning |
| SSPC VIS 3 | (2004) Guide and Reference Photographs for Steel Surfaces Prepared by Hand and Power Tool Cleaning |
| SSPC VIS 4/NACE VIS 7 | (1998; E 2000; E 2004) Guide and Reference Photographs for Steel Surfaces Prepared by Waterjetting |
| SSPC-SP WJ-1/NACE WJ-1 | (2012) Clean to Bare Substrate, Waterjet Cleaning of Metals |
| SSPC-SP WJ-2/NACE WJ-2 | (2012) Very Thorough Cleaning, Waterjet Cleaning of Metals |
| SSPC-SP WJ-3/NACE WJ-3 | (2012) Thorough Cleaning, Waterjet Cleaning of Metals |
| SSPC-SP WJ-4/NACE WJ-4 | (2012) Light Cleaning, Waterjet Cleaning of Metals |

U.S. ARMY CORPS OF ENGINEERS (USACE)

| | |
|------------|--|
| EM 385-1-1 | (2024) Safety -- Safety and Occupational Health (SOH) Requirements |
|------------|--|

U.S. DEPARTMENT OF DEFENSE (DOD)

| | |
|-------------|---|
| MIL-STD-101 | (2014; Rev C) Color Code for Pipelines and for Compressed Gas Cylinders |
|-------------|---|

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

| | |
|-------------|---|
| FED-STD-313 | (2018) Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities |
|-------------|---|

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|------------------|------------------|
| 29 CFR 1910.1000 | Air Contaminants |
|------------------|------------------|

1.3 DEFINITIONS

1.3.1 Qualification Testing

Qualification testing is the performance of all test requirements listed in the product specification. This testing is accomplished by MPI to qualify each product for the MPI Approved Product List, and may also be accomplished by Contractor's third-party testing lab if an alternative to Batch Quality Conformance Testing by MPI is desired.

1.3.2 Batch Quality Conformance Testing

Batch quality conformance testing determines that the product provided is the same as the product qualified to the appropriate product specification. This testing must be accomplished by an MPI testing lab.

1.3.3 Coating

SSPC Glossary; (1) A liquid, liquefiable, or mastic composition that is converted to a solid protective, decorative, or functional adherent film after application as a thin layer; (2) Generic term for paint, lacquer, enamel.

1.3.4 DFT or dft

Dry film thickness, the film thickness of the fully cured, dry paint or coating.

1.3.5 DSD

Degree of Surface Degradation, the MPI system of defining degree of surface degradation. Five levels are generically defined under the Assessment sections in the MPI MRM, MPI Maintenance Repainting Manual.

1.3.6 EXT

MPI short term designation for an exterior coating system.

1.3.7 INT

MPI short term designation for an interior coating system.

1.3.8 Loose Paint

Paint or coating that can be removed with a dull putty knife.

1.3.9 mil / mils

The English measurement for 0.001 in or one one-thousandth of an inch.

1.3.10 MPI Gloss Levels

MPI system of defining gloss. Seven gloss levels (G1 to G7) are generically defined under the Evaluation sections of the MPI Manuals. Traditionally, Flat refers to G1/G2, Eggshell refers to G3, Semigloss refers to G5, and Gloss refers to G6.

Gloss levels are defined by MPI as follows:

| Gloss Level | Description | Units at 60 degree angle | Units at 80 degree angle |
|-------------|---------------|--------------------------|--------------------------|
| G1 | Matte or Flat | 0 to 5 | 10 max |
| G2 | Velvet | 0 to 10 | 10 to 35 |
| G3 | Eggshell | 10 to 25 | 10 to 35 |
| G4 | Satin | 20 to 35 | 35 min |
| G5 | Semi-Gloss | 35 to 70 | |
| G6 | Gloss | 70 to 85 | |
| G7 | High Gloss | | |

Gloss is tested in accordance with ASTM D523. Historically, the Government has used Flat (G1 / G2), Eggshell (G3), Semi-Gloss (G5), and Gloss (G6).

1.3.11 MPI System Number

The MPI coating system number in each MPI Division found in either the MPI Architectural Painting Specification Manual or the Maintenance Repainting Manual and defined as an exterior (EXT/REX) or

interior system (INT/RIN).

1.3.12 Paint

SSPC Glossary; (1) Any pigmented liquid, liquefiable, or mastic composition designed for application to a substrate in a thin layer that is converted to an opaque solid film after application. Used for protection, decoration, identification, or to serve some other functional purposes; (2) Application of a coating material.

1.3.13 REX

MPI short term designation for an exterior coating system used in repainting projects or over existing coating systems.

1.3.14 RIN

MPI short term designation for an interior coating system used in repainting projects or over existing coating systems.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

Samples of specified materials may be taken and tested for compliance with specification requirements.

SD-02 Shop Drawings

Piping Identification

SD-03 Product Data

Coating; G, DO

Product Data Sheets

SD-04 Samples

Color; G, DO

SD-07 Certificates

Qualification Testing laboratory for coatings; G

Indoor Air Quality for Paints and Primers

Indoor Air Quality for Consolidated Latex Paints

SD-08 Manufacturer's Instructions

Mixing; G, DO

Manufacturer's Safety Data Sheets

SD-10 Operation and Maintenance Data

Coatings, Data Package 1; G

1.5 QUALITY ASSURANCE

1.5.1 Regulatory Requirements

1.5.1.1 Environmental Protection

In addition to requirements specified elsewhere for environmental protection, provide coating materials that conform to the restrictions of the local Air Pollution Control District and regional jurisdiction. Notify Contracting Officer of any paint specified herein which fails to conform.

1.5.1.2 Lead Content

Do not use coatings having a lead content over 0.06 percent by weight of nonvolatile content.

1.5.1.3 Chromate Content

Do not use coatings containing zinc-chromate or strontium-chromate.

1.5.1.4 Asbestos Content

Provide asbestos-free materials.

1.5.1.5 Mercury Content

Provide materials free of mercury or mercury compounds.

1.5.1.6 Silica

Provide abrasive blast media containing no free crystalline silica.

1.5.1.7 Human Carcinogens

Provide materials that do not contain ACGIH 0100 confirmed human carcinogens (A1) or suspected human carcinogens (A2).

1.5.1.8 Carbon Based Fibers / Tubes

Materials must not contain carbon based fibers such as carbon nanotubes or carbon nanofibers. Intelligence Bulletin 65 ranks toxicity of carbon nanotubes on a par with asbestos.

1.5.2 Coating Contractor's Qualification

Submit the name, address, telephone number, and e-mail address of the Contractor that will be performing all surface preparation and coating application. Submit evidence that key personnel have successfully performed surface preparation and application of coatings on a minimum of three similar projects within the past three years. List information by individual and include the following:

- a. Name of individual and proposed position for this work.
- b. Information about each previous assignment including:

Position or responsibility

Employer (if other than the Contractor)

Name of facility owner

Mailing address and telephone number of facility owner

Name of individual in facility owner's organization who can be contacted as a reference

Location, size and description of structure

Dates work was carried out

Description of work carried out on structure

~~*AM 1 1.5.3 SSPC QP 1 Certification~~

~~Contractors that perform surface preparation or coating application on steel substrates must be certified by the Society for Protective Coatings (formerly Steel Structures Painting Council) (SSPC) to the requirements of SSPC QP 1 prior to Contract award, and must remain certified while accomplishing any surface preparation or coating application. If a Contractor's certification expires, the firm will not be allowed to perform any work until the certification is reissued. Requests for extension of time for any delay to the completion of the project due to an inactive certification will not be considered. Notify the Contracting Officer of any change in Contractor certification status. Notify the Contracting Officer of all scheduled and unannounced on-site audits from SSPC and furnish a copy of all audit reports. *~~

1.5.4 Approved Products List

The current MPI, "Approved Product List" which lists paint by brand, label, product name and product code as of the date of Contract award, will be used to determine compliance with the submittal requirements of this specification. The Contractor may choose to use a subsequent MPI "Approved Product List", however, only one list may be used for the entire Contract and each coating system is to be from a single manufacturer. Provide all coats on a particular substrate from a single manufacturer. No variation from the MPI Approved Products List is acceptable.

1.5.5 Paints and Coatings Indoor Air Quality Certifications

Provide paint and coating products certified to meet indoor air quality requirements by MPI GPS-1-14, MPI GPS-2-14 or provide certification by other third-party programs. Provide current product certification documentation from certification body.

Provide certification of Indoor Air Quality for Paints and Primers. Provide certification of Indoor Air Quality for Consolidated Latex Paints. Submit required indoor air quality certifications in one submittal package.

1.5.6 Field Samples and Tests

The Contracting Officer may choose up to two coatings that have been delivered to the site to be tested at no cost to the Government. Take samples of each chosen product as specified in the paragraph SAMPLING PROCEDURE. Test each chosen product as specified in the paragraph TESTING PROCEDURE. Remove products from the job site which do not conform, and replace with new products that conform to the referenced specification. Test replacement products that failed initial testing as specified in the paragraph TESTING PROCEDURE at no cost to the Government.

1.5.6.1 Sampling Procedure

Select paint at random from the products that have been delivered to the job site for sample testing. The Contractor must provide one quart samples of the selected paint materials. Take samples in the presence of the Contracting Officer, and label, and identify each sample. Provide labels in accordance with the paragraph PACKAGING, LABELING, AND STORAGE.

1.5.6.2 Testing Procedure

Provide Batch Quality Conformance Testing for specified products, as defined by and performed by MPI. As an alternative to Batch Quality Conformance Testing, the Contractor may provide Qualification Testing for specified products above to the appropriate MPI product specification, using the third-party laboratory approved under the paragraph QUALIFICATION TESTING laboratory for coatings. Include the backup data and summary of the test results within the qualification testing lab report. Provide a summary listing of all the reference specification requirements and the result of each test. Clearly indicate in the summary whether the tested paint meets each test requirement. Note that Qualification Testing may take 4 to 6 weeks to perform, due to the extent of testing required.

Submit name, address, telephone number, FAX number, and e-mail address of the independent third party laboratory selected to perform testing of coating samples for compliance with specification requirements. Submit documentation that laboratory is regularly engaged in testing of paint samples for conformance with specifications, and that employees performing testing are qualified. If MPI is chosen to perform the Batch Quality Conformance testing, the above submittal information is not required, only a letter is required from the Contractor stating that MPI will perform the testing.

1.6 PACKAGING, LABELING, AND STORAGE

Provide paints in sealed containers that legibly show the Contract specification number, designation name, formula or specification number, batch number, color, quantity, date of manufacture, manufacturer's formulation number, manufacturer's directions including any warnings and special precautions, and name and address of manufacturer. Furnish pigmented paints in containers not larger than 5 gallons. Store paints and thinners in accordance with the manufacturer's written directions, and as a minimum, stored off the ground, under cover, with sufficient ventilation to prevent the buildup of flammable vapors, and at temperatures between 40 to 95 degrees F.

1.7 SAFETY AND HEALTH

Comply with applicable Federal, State, and local laws and regulations, and with the ACCIDENT PREVENTION PLAN, including the Activity Hazard Analysis as specified in Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS and in Appendix A of EM 385-1-1. Include in the Activity Hazard Analysis the potential impact of painting operations on painting personnel and on others involved in and adjacent to the work zone.

1.7.1 Toxic Materials

To protect personnel from overexposure to toxic materials, conform to the most stringent guidance of:

- a. The applicable manufacturer's Safety Data Sheets (SDS) or local regulation.
- b. 29 CFR 1910.1000.
- c. ACGIH 0100, threshold limit values.

Submit manufacturer's Safety Data Sheets for coatings, solvents, and other potentially hazardous materials, as defined in FED-STD-313.

1.8 ENVIRONMENTAL REQUIREMENTS

Comply, at minimum, with manufacturer recommendations for space ventilation during and after installation. Isolate area of application from rest of building when applying high-emission paints or coatings.

1.8.1 Coatings

Do not apply coating when air or substrate conditions are:

- a. Less than 5 degrees F above dew point;
- b. Below 50 degrees F or over 95 degrees F, unless specifically pre-approved by the Contracting Officer and the product manufacturer. Do not, under any circumstances, violate the manufacturer's application recommendations.

PART 2 PRODUCTS

2.1 MATERIALS

Conform to the coating specifications and standards referenced in PART 3. Submit Product Data Sheets for specified coatings and solvents. Provide preprinted cleaning and maintenance instructions for all coating systems. Submit Manufacturer's Instructions on Mixing: Detailed mixing instructions, minimum and maximum application temperature and humidity, pot life, and curing and drying times between coats.

2.2 COLOR SELECTION OF FINISH COATS

Provide colors of finish coats as indicated or specified. Allow Contracting Officer to select colors not indicated or specified. Manufacturers' names and color identification are used for the purpose of color identification only. Named products are acceptable for use only if they conform to specified requirements. Products of other manufacturers are acceptable if the colors are approximately the colors indicated and the product conforms to specified requirements.

Provide color, texture, and pattern of wall coating systems as indicated in accordance with Section 09 06 00 SCHEDULES FOR FINISHES. Submit manufacturer's samples of paint colors. Cross reference color samples to color scheme as indicated. Submit color stencil codes. Tint each coat progressively darker to enable confirmation of the number of coats.

PART 3 EXECUTION

3.1 PROTECTION OF AREAS AND SPACES NOT TO BE PAINTED

Prior to surface preparation and coating applications, remove, mask, or otherwise protect hardware, hardware accessories, machined surfaces, radiator covers, plates, lighting fixtures, public and private property, and other such items not to be coated that are in contact with surfaces to be coated. Following completion of painting, reinstall removed items by workmen skilled in the trades. Restore surfaces contaminated by coating materials, to original condition and repair damaged items.

3.2 SURFACE PREPARATION

Remove dirt, splinters, loose particles, grease, oil, and other foreign matter and substances deleterious to coating performance as specified for each substrate before application of paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Schedule cleaning so that dust and other contaminants will not fall on wet, newly painted surfaces. Spot-prime exposed ferrous metals such as nail heads on or in contact with surfaces to be painted with water-thinned paints, with a suitable corrosion-inhibitive primer capable of preventing flash rusting and compatible with the coating specified for the adjacent areas. Refer to MPI ASM and MPI MRM for additional more specific substrate preparation requirements.

3.3 PREPARATION OF METAL SURFACES

3.3.1 Existing and New Ferrous Surfaces

- a. Ferrous Surfaces including Shop-coated Surfaces and Small Areas That Contain Rust, Mill Scale and Other Foreign Substances: Solvent clean or detergent wash in accordance with SSPC SP 1 to remove oil and grease. Where shop coat is missing or damaged, clean according to SSPC SP 2, SSPC SP 3, SSPC SP 6/NACE No.3, or SSPC SP 10/NACE No. 2.; Protect shop-coated ferrous surfaces from corrosion by treating and touching up corroded areas

immediately upon detection.

- b. Surfaces With More Than 20 Percent Rust, Mill Scale, and Other Foreign Substances: Clean entire surface in accordance with SSPC SP 6/NACE No.3 / SSPC-SP WJ-3/NACE WJ-3 SSPC SP 10/NACE No. 2 / SSPC-SP WJ-2/NACE WJ-2.

3.3.2 Final Ferrous Surface Condition:

3.3.2.1 Tool Cleaned Surfaces

Comply with SSPC SP 2 and SSPC SP 3. Use as a visual reference, photographs in SSPC VIS 3 for the appearance of cleaned surfaces.

3.3.2.2 Abrasive Blast Cleaned Surfaces

Comply with SSPC 7/NACE No.4, SSPC SP 6/NACE No.3, and SSPC SP 10/NACE No. 2. Use as a visual reference, photographs in SSPC VIS 1 for the appearance of cleaned surfaces.

3.3.2.3 Waterjet Cleaned Surfaces

Comply with SSPC-SP WJ-1/NACE WJ-1, SSPC-SP WJ-2/NACE WJ-2, SSPC-SP WJ-3/NACE WJ-3 or SSPC-SP WJ-4/NACE WJ-4. Use as a visual reference, photographs in SSPC VIS 4/NACE VIS 7 for the appearance of cleaned surfaces.

3.3.3 Galvanized Surfaces

- a. New or Existing Galvanized Surfaces With Only Dirt and Zinc Oxidation Products: Clean with solvent, steam, or non-alkaline detergent solution in accordance with SSPC SP 1. Completely remove coating by brush-off abrasive blast if the galvanized metal has been passivated or stabilized. Do not "passivate" or "stabilize" new galvanized steel to be coated. If the absence of hexavalent stain inhibitors is not documented, test as described in ASTM D6386, Appendix X2, and remove by one of the methods described therein.
- b. Galvanized with Slight Coating Deterioration or with Little or No Rusting: Water jetting to SSPC-SP WJ-3/NACE WJ-3 to remove loose coating from surfaces with less than 20 percent coating deterioration and no blistering, peeling, or cracking. Use inhibitor as recommended by the coating manufacturer to prevent rusting.
- c. Galvanized With Severe Deteriorated Coating or Severe Rusting: Water jet to SSPC-SP WJ-3/NACE WJ-3 degree of cleanliness. Spot abrasive blast rusted areas as described for steel in SSPC SP 6/NACE No.3, and waterjet to SSPC-SP WJ-3/NACE WJ-3 to remove existing coating.

3.3.4 Non-Ferrous Metallic Surfaces

Aluminum and aluminum-alloy, lead, copper, and other nonferrous metal surfaces.

Surface Cleaning: Solvent clean in accordance with SSPC SP 1 and wash with mild non-alkaline detergent to remove dirt and water soluble contaminants.

3.3.5 Terne-Coated Metal Surfaces

Solvent clean surfaces with mineral spirits, ASTM D235. Wipe dry with clean, dry cloths.

3.3.6 Existing Surfaces with a Bituminous or Mastic-Type Coating

Remove chalk, mildew, and other loose material by washing with a solution of 1/2 cup trisodium phosphate, 1/4 cup household detergent, one quart 5 percent sodium hypochlorite solution and 3 quarts of warm water.

3.4 PREPARATION OF CONCRETE AND CEMENTITIOUS SURFACE

3.4.1 Concrete and Masonry

- a. Curing: Allow concrete, stucco and masonry surfaces to cure at least 30 days before painting, and concrete slab on grade to cure at least 90 days before painting.
- b. Surface Cleaning: Remove the following deleterious substances.
 - (1) Dirt, Grease, and Oil: Wash new surfaces with a solution composed of 1/2 cup trisodium phosphate, 1/4 cup household detergent, and 4 quarts of warm water. Then rinse thoroughly with fresh water. Wash existing coated surfaces with a suitable detergent and rinse thoroughly. For large areas, water blasting may be used.
 - (2) Fungus and Mold: Wash surfaces with a solution composed of 1/2 cup trisodium phosphate, 1/4 cup household detergent, one quart 5 percent sodium hypochlorite solution and 3 quarts of warm water. Rinse thoroughly with fresh water.
 - (3) Paint and Loose Particles: Remove by wire brushing.
 - (4) Efflorescence: Remove by scraping or wire brushing followed by washing with a 5 to 10 percent by weight aqueous solution of hydrochloric (muriatic) acid. Do not allow acid to remain on the surface for more than five minutes before rinsing with fresh water. Do not acid clean more than 4 square feet of surface, per workman, at one time.
- c. Cosmetic Repair of Minor Defects: Repair or fill mortar joints and minor defects, including but not limited to spalls, in accordance with manufacturer's recommendations and prior to coating application.
- d. Allowable Moisture Content: Latex coatings may be applied to damp surfaces, but not to surfaces with droplets of water. Do not apply epoxies to damp vertical surfaces as determined by ASTM D4263 or horizontal surfaces that exceed 3 lbs of moisture per 1000 square feet in 24 hours as determined by ASTM F1869. In all cases follow manufacturer's recommendations. Allow surfaces to cure a minimum of 30 days before painting.

3.4.2 Gypsum Board, Plaster, and Stucco

3.4.2.1 Surface Cleaning

Verify that plaster and stucco surfaces are free from loose matter and that gypsum board is dry. Remove loose dirt and dust by brushing with a soft brush, rubbing with a dry cloth, or vacuum-cleaning prior to application of the first coat material. A damp cloth or sponge may be used if paint is water-based.

3.4.2.2 Repair of Minor Defects

Prior to painting, repair joints, cracks, holes, surface irregularities, and other minor defects with patching plaster or spackling compound and sand smooth.

3.4.2.3 Allowable Moisture Content

Latex coatings may be applied to damp surfaces, but not surfaces with droplets of water. Do not apply epoxies to damp surfaces as determined by ASTM D4263. Verify that new plaster to be coated has a maximum moisture content of 8 percent, when measured in accordance with ASTM D4444, Method A, unless otherwise authorized. In addition to moisture content requirements, allow new plaster to age a minimum of 30 days before preparation for painting.

3.5 APPLICATION

3.5.1 Coating Application

- a. Comply with applicable federal, state and local laws enacted to ensure compliance with Federal Clean Air Standards. Apply coating materials in accordance with SSPC PA 1. SSPC PA 1 methods are applicable to all substrates, except as modified herein.
- b. At the time of application, paint must show no signs of deterioration. Maintain uniform suspension of pigments during application.
- c. Unless otherwise specified or recommended by the paint manufacturer, paint may be applied by brush, roller, or spray. Use trigger operated spray nozzles for water hoses. Use rollers for applying paints and enamels of a type designed for the coating to be applied and the surface to be coated. Wear protective clothing and respirators when applying oil-based paints or using spray equipment with any paints.
- d. Only apply paints, except water-thinned types, to surfaces that are completely free of moisture as determined by sight or touch.
- e. Thoroughly work coating materials into joints, crevices, and open spaces. Pay special attention to ensure that all edges, corners, crevices, welds, and rivets receive a film thickness equal to that of adjacent painted surfaces.
- f. Apply each coat of paint so that dry film is of uniform thickness and free from runs, drops, ridges, waves, pinholes or other voids, laps, brush marks, and variations in color, texture, and finish. Completely hide all blemishes.
- g. Touch up damaged coatings before applying subsequent coats.
- h. Apply paint to new fire extinguishing sprinkler systems including valves, piping, conduit, hangers, supports, miscellaneous metal work, and accessories. Shield sprinkler heads with protective coverings while painting is in progress. Remove sprinkler heads which have been painted and replace with new sprinkler heads. Unfinished spaces include attic spaces, spaces above suspended ceilings, crawl spaces, pipe chases, mechanical equipment room, and space where walls or ceiling are not painted or not constructed of a prefinished material. Upon completion of painting, remove protective covering from sprinkler heads.
- i. Piping in Unfinished Areas: Provide primed surfaces with one coat of red alkyd gloss enamel (MPI 9) applied to a minimum dry film thickness of 1.0 mil in attic spaces, spaces above suspended ceilings, crawl spaces, pipe chases, mechanical equipment room, and spaces where walls or ceiling are not painted or not constructed of a prefinished material.
- j. Piping in Finished Areas: Provide primed surfaces with two coats of paint to match adjacent surfaces, except provide valves and operating accessories with one coat of red alkyd gloss enamel (MPI 9) applied to a minimum dry film thickness of 1.0 mil or two component gloss polyurethane (MPI 72) in exterior applications.
- k. Provide labeling on the surfaces of all feed and cross mains to show the pipe function such as "Sprinkler System", "Fire Department Connection", "Standpipe". For pipe sizes 4-inch and larger provide white painted stenciled letters and arrows, a minimum of 2 in in height and visible from at least two sides when viewed from the floor. For pipe sizes less than 4-inch, provide white painted stenciled letters and arrows, a minimum of 0.75 in in height and visible from the floor.
- l. All fire suppression system valves must be marked with permanent tags indicating normally open or normally closed.
- m. Drying Time: Allow time between coats, as recommended by the coating manufacturer, to permit thorough drying, but not to present topcoat adhesion problems. Provide each coat in specified

condition to receive next coat.

- n. Primers, and Intermediate Coats: Do not allow primers or intermediate coats to dry more than 30 days, or longer than recommended by manufacturer, before applying subsequent coats. Follow manufacturer's recommendations for surface preparation if primers or intermediate coats are allowed to dry longer than recommended by manufacturers of subsequent coatings. Cover each preceding coat or surface completely by ensuring visually perceptible difference in shades of successive coats.
- o. Finished Surfaces: Provide finished surfaces free from runs, drops, ridges, waves, laps, brush marks, and variations in colors.
- p. Thermosetting Paints: Apply topcoats over thermosetting paints (epoxies and urethanes) within the overcoat window recommended by the manufacturer.
- q. Floors: For nonslip surfacing on level floors, as the intermediate coat is applied, cover wet surface completely with almandite garnet, Grit No. 36, with maximum passing U.S. Standard Sieve No. 40 less than 0.5 percent. When the coating is dry, use a soft bristle broom to sweep up excess grit, which may be reused, and vacuum up remaining residue before application of the topcoat.

3.5.2 Mixing and Thinning of Paints

Reduce paints to proper consistency by adding fresh paint, except when thinning is mandatory to suit surface, temperature, weather conditions, application methods, or for the type of paint being used. Obtain written permission from the Contracting Officer to use thinners. Verify that the written permission includes quantities and types of thinners to use.

When thinning is allowed, thin paints immediately prior to application with not more than one pint of suitable thinner per gallon. The use of thinner does not relieve the Contractor from obtaining complete hiding, full film thickness, or required gloss. Thinning cannot cause the paint to exceed limits on volatile organic compounds. Do not mix paints of different manufacturers.

3.5.3 Two-Component Systems

Mix two-component systems in accordance with manufacturer's instructions. Follow recommendation by the manufacturer for any thinning of the first coat to ensure proper penetration and sealing for each type of substrate.

3.5.4 Coating Systems

- a. Systems by Substrates: Apply coatings that conform to the respective specifications listed in the following Tables:

| Table for Exterior Applications | |
|---------------------------------|--|
| MPI Division | Substrate Application |
| MPI Division 3 | Exterior Concrete Paint Table |
| MPI Division 4 | Exterior Concrete Masonry Units Paint Table |
| MPI Division 5 | Exterior Metal, Ferrous and Non-Ferrous Paint Table |
| MPI Division 6 | Exterior Wood; Dressed Lumber, Paneling, Decking, Shingles Paint Table |

| Table for Exterior Applications | |
|---------------------------------|---|
| MPI Division 9 | Exterior Stucco Paint Table |
| MPI Division 10 | Exterior Cloth Coverings and Bituminous Coated Surfaces Paint Table |
| Table for Interior Applications | |
| MPI Division | Substrate Application |
| MPI Division 3 | Interior Concrete Paint Table |
| MPI Division 4 | Interior Concrete Masonry Units Paint Table |
| MPI Division 5 | Interior Metal, Ferrous and Non-Ferrous Paint Table |
| MPI Division 6 | Interior Wood Paint Table |
| MPI Division 9 | Interior Plaster, Gypsum Board, Textured Surfaces Paint Table |

- b. Minimum Dry Film Thickness (DFT): Apply paints, primers, varnishes, enamels, undercoats, and other coatings to a minimum dry film thickness of 1.5 mil each coat unless specified otherwise in the Tables. Coating thickness, where specified, refers to the minimum dry film thickness.
- c. Coatings for Surfaces Not Specified Otherwise: Coat unspecified surfaces the same as surfaces having similar conditions of exposure.
- d. Existing Surfaces Damaged During Performance of the Work, Including New Patches In Existing Surfaces: Coat surfaces with the following:
 - (1) One coat of primer.
 - (2) One coat of undercoat or intermediate coat.
 - (3) One topcoat to match adjacent surfaces.
- e. Existing Coated Surfaces To Be Painted: Apply coatings conforming to the respective specifications listed in the Tables herein, except that pretreatments, sealers and fillers need not be provided on surfaces where existing coatings are soundly adhered and in good condition. Do not omit undercoats or primers.

3.6 COATING SYSTEMS FOR METAL

Apply coatings of Tables in MPI Division 5 for Exterior and Interior.

- a. Apply specified ferrous metal primer to steel surfaces on the same day that surface is cleaned, to surfaces that meet all specified surface preparation requirements at time of application.
- b. Inaccessible Surfaces: Prior to erection, use one coat of specified primer on metal surfaces that will be inaccessible after erection.
- c. Shop-primed Surfaces: Touch up exposed substrates and damaged coatings to protect from rusting prior to applying field primer.

- d. Surface Previously Coated with Epoxy or Urethane: Apply MPI 101, 1.5 mils DFT immediately prior to application of epoxy or urethane coatings.
- e. Pipes and Tubing: The semitransparent film applied to some pipes and tubing at the mill is not to be considered a shop coat. Overcoat these items with the specified ferrous-metal primer prior to application of finish coats.
- f. Exposed Nails, Screws, Fasteners, and Miscellaneous Ferrous Surfaces. On surfaces to be coated with water thinned coatings, spot prime exposed nails and other ferrous metal with latex primer MPI 107.

3.7 COATING SYSTEMS FOR CONCRETE AND CEMENTITIOUS SUBSTRATES

Apply coatings of Tables in MPI Division 3, 4 and 9 for Exterior and Interior.

3.8 PIPING IDENTIFICATION

Piping Identification, Including Surfaces In Concealed Spaces: Provide in accordance with ASME A13.1. Place stenciling in clearly visible locations. On piping not covered by ASME A13.1, stencil approved names or code letters, in letters a minimum of 1/2 inch high for piping and a minimum of 2 inches high elsewhere. Stencil arrow-shaped markings on piping to indicate direction of flow using black stencil paint.

3.9 INSPECTION AND ACCEPTANCE

In addition to meeting previously specified requirements, demonstrate mobility of moving components, including swinging and sliding doors, cabinets, and windows with operable sash, for inspection by the Contracting Officer. Perform this demonstration after appropriate curing and drying times of coatings have elapsed and prior to invoicing for final payment.

3.10 WASTE MANAGEMENT

As specified in the Waste Management Plan and as follows. Do not use kerosene or any such organic solvents to clean up water based paints. Properly dispose of paints or solvents in designated containers. Close and seal partially used containers of paint to maintain quality as necessary for reuse. Store in protected, well-ventilated, fire-safe area at moderate temperature. Place materials defined as hazardous or toxic waste in designated containers.

3.11 PAINT TABLES

All DFT's are minimum values. Acceptable products are listed in the MPI Green Approved Products List, available at <https://www.mpi.net/APL/index.asp>.

3.11.1 Exterior Paint Tables

3.11.1.1 MPI Division 5: Exterior Metal, Ferrous and Non-Ferrous Paint Table

A. Steel / Ferrous Surfaces

(1) New Steel that has been hand or power tool cleaned to SSPC SP 2 or SSPC SP 3

| |
|-------|
| Alkyd |
|-------|

| New | Existing, uncoated | Primer | Intermediate | Topcoat | System DFT |
|--|--------------------------------|--------|--------------|---------|------------|
| MPI EXT 5.1Q-G5 (Semigloss) | MPI REX 5.1D-G5 (Semigloss) | MPI 23 | MPI 94 | MPI 94 | 5.25 mils |
| MPI EXT 5.1Q-G6 (Gloss) | MPI REX 5.1D-G6 (Gloss) | MPI 23 | MPI 9 | MPI 9 | 5.25 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | | |

(2) New Steel that has been blast-cleaned to SSPC SP 6/NACE No.3

| Alkyd | | | | | |
|--|--------------------------------|--------|--------------|---------|------------|
| New | Existing, uncoated | Primer | Intermediate | Topcoat | System DFT |
| MPI EXT 5.1D-G5 (Semigloss) | MPI REX 5.1D-G5 (Semigloss) | MPI 79 | MPI 94 | MPI 94 | 5.25 mils |
| MPI EXT 5.1D-G6 (Gloss) | MPI REX 5.1D-G6 (Gloss) | MPI 79 | MPI 9 | MPI 9 | 5.25 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | | |

(4) New steel blast cleaned to SSPC SP 10/NACE No. 2

| Waterborne Light Industrial | | | | | |
|--|--------------------------------|---------|--------------|---------|------------|
| New | Existing | Primer | Intermediate | Topcoat | System DFT |
| MPI EXT 5.1R-G5 (Semigloss) | MPI EXT 5.1R-G5 (Semigloss) | MPI 101 | MPI 108 | MPI 163 | 8.5 mils |
| MPI EXT 5.1R-G6 (Gloss) | MPI EXT 5.1R-G6 (Gloss) | MPI 101 | MPI 108 | MPI 164 | 8.5 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | | |

B. Exterior Galvanized Surfaces

(1) New Galvanized surfaces

| Waterborne Primer / Waterborne Light Industrial Coating | | | | |
|---|---------|--------------|---------|------------|
| New Galvanized Surfaces | Primer | Intermediate | Topcoat | System DFT |
| MPI EXT 5.3J-G5 (Semigloss) | MPI 134 | MPI 163 | MPI 163 | 4.5 mils |
| MPI EXT 5.3J-G6 (Gloss) | MPI 134 | MPI 164 | MPI 164 | 4.5 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | |

| Epoxy Primer / Waterborne Light Industrial Coating | | | | |
|--|---------|--------------|---------|------------|
| New Galvanized Surfaces | Primer | Intermediate | Topcoat | System DFT |
| MPI EXT 5.3K-G5 (Semigloss) | MPI 101 | MPI 163 | MPI 163 | 5 mils |
| MPI EXT 5.3K-G6 (Gloss) | MPI 101 | MPI 164 | MPI 164 | 5 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | |

(3) Surfaces adjacent to painted surfaces; Mechanical, Electrical, Fire extinguishing sprinkler systems including valves, conduit, hangers, supports, exposed copper piping, and miscellaneous metal items not otherwise specified except floors, hot metal surfaces, and new prefinished equipment

3.11.2 Interior Paint Tables

3.11.2.1 MPI Division 3: Interior Concrete Paint Table

A. New Concrete, vertical surfaces, not specified otherwise

| High Performance Architectural Latex | | | | | |
|--|------------------------------|--------|--------------|---------|------------|
| New, uncoated Existing | Existing, previously painted | Primer | Intermediate | Topcoat | System DFT |
| MPI INT 3.1C-G5 (Semigloss) | MPI RIN 3.1J-G5 (Semigloss) | MPI 3 | MPI 141 | MPI 141 | 4 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | | |

3.11.2.2 MPI Division 4: Interior Concrete Masonry Units Paint Table

A. New Concrete Masonry

| High Performance Architectural Latex | | | | | |
|--------------------------------------|--------|--------|--------------|---------|------------|
| New, uncoated Existing | Filler | Primer | Intermediate | Topcoat | System DFT |
| MPI INT 4.2D-G5 (Semigloss) | MPI 4 | N/A | MPI 141 | MPI 141 | 11 mils |
| Fill all holes in masonry surface | | | | | |

B. New Concrete masonry units in corridor, vestibules as noted, storage rooms, tool crib, mechanical rooms, electrical rooms, hangar bays and high humidity areas. unless otherwise specified

| Epoxy | | | | | |
|-----------------------------------|---------|--------|--------------|---------|------------|
| New, uncoated Existing | Filler | Primer | Intermediate | Topcoat | System DFT |
| MPI INT 4.2G-G6 (Gloss) | MPI 116 | N/A | MPI 77 | MPI 77 | 10 mils |
| Fill all holes in masonry surface | | | | | |

3.11.2.3 MPI Division 5: Interior Metal, Ferrous and Non-Ferrous Paint Table

A. Interior Steel / Ferrous Surfaces

(1) Metal, Mechanical, Electrical, Fire extinguishing sprinkler systems including valves, conduit, hangers, supports, Surfaces adjacent to painted surfaces (Match surrounding finish), exposed copper piping, and miscellaneous metal items not otherwise specified except floors, hot metal surfaces, and new prefinished equipment

| Epoxy | | | | |
|--|---------|--------------|---------|------------|
| New, uncoated Existing | Primer | Intermediate | Topcoat | System DFT |
| MPI INT 5.1L-G6 (Gloss) | MPI 101 | MPI 101 | MPI 101 | 5.25 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | |

(4) Ferrous metal in concealed damp spaces or in exposed areas having unpainted adjacent surfaces as follows:

| |
|----------------|
| Aluminum Paint |
|----------------|

| New, uncoated Existing | Primer | Intermediate | Topcoat | System DFT |
|--|--------|--------------|---------|------------|
| MPI INT 5.1M | MPI 76 | MPI 1 | MPI 1 | 4.25 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | |

(5) Miscellaneous non-ferrous metal items not otherwise specified except floors, hot metal surfaces, and new prefinished equipment. Match surrounding finish

| High Performance Architectural Latex | | | | |
|--|--------|--------------|---------|------------|
| New, uncoated Existing | Primer | Intermediate | Topcoat | System DFT |
| MPI INT 5.4F-G2 (Flat) | MPI 95 | MPI 138 | MPI 138 | 5 mils |
| MPI INT 5.4F-G3 (Eggshell) | MPI 95 | MPI 139 | MPI 139 | 5 mils |
| MPI INT 5.4F-G4 (Satin) | MPI 95 | MPI 140 | MPI 140 | 5 mils |
| MPI INT 5.4F-G5 (Semigloss) | MPI 95 | MPI 141 | MPI 141 | 5 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | |

3.11.2.4 MPI Division 9: Interior Plaster, Gypsum Board, Textured Surfaces Paint Table

A. Interior New Wallboard not otherwise specified

| Latex | | | | | |
|--|------------------------------|--------|--------------|---------|------------|
| New | Existing, previously painted | Primer | Intermediate | Topcoat | System DFT |
| MPI INT 9.2A-G2 (Flat) | RIN 9.2A-G2 (Flat) | MPI 50 | MPI 44 | MPI 44 | 4 mils |
| MPI INT 9.2A-G3 (Eggshell) | RIN 9.2A-G3 (Eggshell) | MPI 50 | MPI 52 | MPI 52 | 4 mils |
| MPI INT 9.2A-G5 (Semigloss) | RIN 9.2A-G5 (Semigloss) | MPI 50 | MPI 54 | MPI 54 | 4 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | | |

| High Performance Architectural Latex - High Traffic Areas | | | | | |
|---|------------------------------|--------|--------------|---------|------------|
| New | Existing, previously painted | Primer | Intermediate | Topcoat | System DFT |
| MPI INT 9.2B-G2 (Flat) | MPI RIN 9.2B-G2 (Flat) | MPI 50 | MPI 138 | MPI 138 | 4 mils |
| MPI INT 9.2B-G3 (Eggshell) | MPI RIN 9.2B-G3 (Eggshell) | MPI 50 | MPI 139 | MPI 139 | 4 mils |
| MPI INT 9.2B-G5 (Semigloss) | MPI RIN 9.2B-G5 (Semigloss) | MPI 50 | MPI 141 | MPI 141 | 4 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | | |

Institutional Low Odor / Low VOC Latex, New

| Institutional Low Odor / Low VOC Latex | | | | |
|--|---------|--------------|---------|------------|
| New | Primer | Intermediate | Topcoat | System DFT |
| MPI INT 9.2M-G2 (Flat) | MPI 149 | MPI 144 | MPI 144 | 4 mils |
| MPI INT 9.2M-G3 (Eggshell) | MPI 149 | MPI 145 | MPI 145 | 4 mils |
| MPI INT 9.2M-G4 (Satin) | MPI 149 | MPI 146 | MPI 146 | 4 mils |
| MPI INT 9.2M-G5 (Semigloss) | MPI 149 | MPI 147 | MPI 147 | 4 mils |
| Topcoat: Coating to match adjacent surfaces. | | | | |

Institutional Low Odor / Low VOC Latex, Existing, previously painted

| Institutional Low Odor / Low VOC Latex | | | | |
|--|---------|--------------|---------|------------|
| Existing, previously painted | Primer | Intermediate | Topcoat | System DFT |
| MPI RIN 9.2M-G2 (Flat) | MPI 144 | MPI 144 | MPI 144 | 4 mils |
| MPI RIN 9.2M-G3 (Eggshell) | MPI 144 | MPI 145 | MPI 145 | 4 mils |
| MPI RIN 9.2M-G4 (Satin) | MPI 144 | MPI 146 | MPI 146 | 4 mils |

| | | | | |
|-----------------------------|---------|---------|---------|--------|
| MPI RIN 9.2M-G5 (Semigloss) | MPI 144 | MPI 147 | MPI 147 | 4 mils |
|-----------------------------|---------|---------|---------|--------|

Topcoat: Coating to match adjacent surfaces.

B. Interior New Wallboard incorridor and alcove. not otherwise specified

Waterborne Light Industrial Coating

| New, uncoated Existing | Existing, previously painted | Primer | Intermediate | Topcoat | System DFT |
|------------------------|------------------------------|--------|--------------|---------|------------|
|------------------------|------------------------------|--------|--------------|---------|------------|

| | | | | | |
|----------------------------|-----------------------------|--------|---------|---------|--------|
| MPI INT 9.2L-G5(Semigloss) | MPI RIN 9.2L-G5 (Semigloss) | MPI 50 | MPI 153 | MPI 153 | 4 mils |
|----------------------------|-----------------------------|--------|---------|---------|--------|

Topcoat: Coating to match adjacent surfaces.

Alkyd

| New, uncoated Existing | Existing, previously painted | Primer | Intermediate | Topcoat | System DFT |
|------------------------|------------------------------|--------|--------------|---------|------------|
|------------------------|------------------------------|--------|--------------|---------|------------|

| | | | | | |
|-----------------------------|-----------------------------|--------|--------|--------|--------|
| MPI INT 9.2C-G5 (Semigloss) | MPI RIN 9.2C-G5 (Semigloss) | MPI 50 | MPI 47 | MPI 47 | 4 mils |
|-----------------------------|-----------------------------|--------|--------|--------|--------|

Topcoat: Coating to match adjacent surfaces.

Epoxy, New, uncoated Existing

Epoxy

| New, uncoated Existing | Primer | Intermediate | Topcoat | System DFT |
|------------------------|--------|--------------|---------|------------|
|------------------------|--------|--------------|---------|------------|

| | | | | |
|-------------------------|--------|--------|--------|--------|
| MPI INT 9.2E-G6 (Gloss) | MPI 50 | MPI 77 | MPI 77 | 4 mils |
|-------------------------|--------|--------|--------|--------|

Topcoat: Coating to match adjacent surfaces.

Epoxy, Existing, previously painted

Epoxy

| Existing, previously painted | Primer | Intermediate | Topcoat | System DFT |
|------------------------------|--------|--------------|---------|------------|
|------------------------------|--------|--------------|---------|------------|

| | | | | |
|-------------------------|--------|--------|--------|--------|
| MPI RIN 9.2D-G6 (Gloss) | MPI 17 | MPI 77 | MPI 77 | 4 mils |
|-------------------------|--------|--------|--------|--------|

Topcoat: Coating to match adjacent surfaces.

-- End of Section --