SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes surface preparation and the application of paint systems on the following interior surface materials:

1. Concrete masonry units (CMU).
2. Steel.
3. Galvanized metal.
4. Gypsum board.
5. Wood.

B. Related Sections include the following:

1. Division 5 Sections for shop priming of metal with primers specified in this Section.
2. Division 6 Sections for shop priming carpentry with primers specified in this Section.
3. Division 8 Sections for factory priming windows and doors with primers specified in this Section.
4. Division 9 Section "Exterior Painting" for surface preparation and the application of paint systems on exterior surface materials.
5. Division 9 Section "High-performance Coatings."

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Product List: For each product indicated, include the following:

1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.
3. Documentation of SSPC-Paint compliance for each product category specified in Part 2.

1.4 QUALITY ASSURANCE

A. SSPC (The Society for Protective Coatings)

1. Products: Complying with SSPC Specifications where indicated.

B. OTC (Ozone Transport Commission)

1. Products: Complying with OTC Regulations regarding lower VOC limits

C. MPI Standards:

1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

1.5 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 deg F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.6 PROJECT CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.

B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by Sherwin-Williams Company or an equivalent product by one of the following:

1. Benjamin Moore & Co.
2. Columbia Paint & Coatings.
3. Davis Paint Company.
4. Del Technical Coatings.
5. Duron, Inc.
6. Hallman Lindsay Quality Paints.
7. ICI Paints.
8. M.A.B. Paints.
9. McCormick Paints.
10. PPG Architectural Finishes, Inc.
11. Vista Paint.

2.2 PAINT, GENERAL

A. Material Compatibility:

1. Provide materials for use within each paint 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. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. Colors: As selected by Architect from manufacturer's full range. See color schedule on drawings.

C. Graphics and Accents: As designated on drawings and in Color Schedule.

2.3 BLOCK FILLERS

A. Interior/Exterior Latex Block Filler: MPI #4.

1. VOC Content: E Range of E3.Basis of Design: PrepRite Block Filler (B25W25) by Sherwin-Williams Company.

2.4 PRIMERS/SEALERS

A. Interior Latex Primer/Sealer: MPI #50.

1. VOC Content: E Range of E2.
2. Basis of Design: Harmony Interior Latex Primer by Sherwin-Williams Company.

B. Interior Latex Primer/Sealer for WOOD: MPI #50.

1. VOC Content: E Range of E2.
2. Basis of Design: PrepRite 200 Interior Latex Primer by Sherwin-Williams Company.

2.5 METAL PRIMERS

A. Universal Water Based Primer: SSPC-Paint 24.

1. VOC Content: E Range of E1.
2. Basis of Design: Pro-Cryl (B66-310 Series) by Sherwin-Williams Company.

2.6 WATERBORNE COATING

A. Waterborne Pigmented Emulsion Coating (Semigloss): MPI #163 (Gloss Level 5)

1. VOC Content: E Range of E1
2. Basis of Design: Sher-Cryl (B66-300 Series) by Sherwin-Williams Company.

2.7 LATEX PAINTS

A. Institutional Low-Odor/VOC Latex (Eggshell): MPI #144 (Gloss Level 2).

1. VOC Content: E Range of E3.
2. Basis of Design: Harmony Low Odor Interior Latex Finish by Sherwin-Williams Company.

B. Institutional Low-Odor/VOC Latex (Semigloss): MPI #147 (Gloss Level 5).

1. VOC Content: E Range of E3.
2. Basis of Design: Harmony Low Odor Interior Latex Finish by Sherwin-Williams Company.

2.8 CONCRETE SEALER / REFINISHING SYSTEM

A. Concrete re-finishing system: Penetrating, non-film forming concrete treatment.

1. Identified as "Color Sealer" on the Finish Schedule.

a. VOC Content: 0
b. Skid Resistance: NFSI – Standard 101.A – High Traction
c. Static of Coefficient Wet: 0.6 – 1.0.

2. Basis of Design: FGS PermaShine System by L&M Construction Chemicals, Inc.

2.9 WOOD FLOORING FINISHING SYSTEM

A. Urethane Finish System: Complete water-based system of compatible components that is recommended by finish manufacturer for application indicated.

1. VOC Content: When calculated according to 40 CFR 59, Subpart D (EPA Method 24), as follows:

   a. Finish Coats and Floor Sealers: Not more than 350 g/L.
   b. Stains: Not more than 250 g/L.

2. Finish Coats: Formulated for multi-coat application on wood flooring.

   a. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
   b. Products: Subject to compliance with requirements, provide the following:

      1) Dura Seal, Sherwin-Williams Company (The).

3. Floor Sealer: Pliable, penetrating type.

B. Wood Filler: Compatible with finish system components and recommended by filler and finish manufacturers for use indicated. If required to match approved Samples, provide pigmented filler.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.

B. Maximum Moisture Content of Surface Materials: When measured with an electronic moisture meter as follows:

   1. Concrete: 12 percent.
   2. Masonry (Clay and CMU): 12 percent.
   3. Wood: 15 percent.
   4. Gypsum Board: 12 percent.

C. Verify suitability of surface materials, including surface conditions and compatibility with existing finishes and primers.

D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.

   1. Beginning coating application constitutes Contractor's acceptance of surface materials and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to surface materials indicated.

B. Remove plates, machined surfaces, and similar items already in place that are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

   1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.

C. Clean surface materials of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime with compatible primers as required to produce paint systems indicated.

D. Concrete: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.

E. Clay Masonry: Remove efflorescence and chalk. Do not paint surfaces if moisture content of surfaces or alkalinity of mortar joints to be painted exceed that permitted in manufacturer's written instructions.

F. Concrete Masonry: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.

G. Steel: Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.

H. Galvanized-Metal: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

I. Aluminum: Remove surface oxidation.

J. Wood:

1. Scrape multiple layers of existing paint to ensure proper adhesion of new paint. Field verify existing surfaces to be painted to become familiar with the existing surfaces to be re-painted..
2. Scrape and clean knots, and apply coat of knot sealer before applying primer.
3. Sand surfaces that will be exposed to view, and dust off.
4. Prime edges, ends, faces, undersides, and backsides of wood.
5. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

K. Gypsum Board: Do not begin paint application until finishing compound is dry and sanded smooth.

L. Existing Concrete: Prepare existing surfaces with a dry diamond grinding / vacuum process. Assume 800 grit finish – 5 step minimum process by a Concrete Refinishing System Manufacturer approved installer.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions.

1. Use applicators and techniques suited for paint and substrate indicated.
2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.

B. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

C. If primers are chipped, apply additional touch-up primer until full coverage is achieved prior to application of topcoats.

D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

E. Painting Mechanical and Electrical Work: Paint items exposed in equipment rooms and occupied spaces including, but not limited to, the following:

1. Mechanical Work:

a. Uninsulated metal piping.
b. Uninsulated plastic piping.
c. Pipe hangers and supports.
d. Tanks that do not have factory-applied final finishes.
e. Visible portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets.
f. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
g. Mechanical equipment that is indicated to have a factory-primed finish for field painting.

2. Electrical Work:

a. Switchgear.
b. Panelboards.
c. Electrical equipment that is indicated to have a factory-primed finish for field painting.

3.4 FIELD QUALITY CONTROL

A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure at any time and as often as Owner deems necessary during the period when paints are being applied:

1. Owner will engage the services of a qualified testing agency to sample paint materials 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 product requirements.
3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying-paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

A. CMU:

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Interior/exterior latex block filler.
b. Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
c. Topcoat: Institutional low-odor/VOC interior latex (semigloss).

B. Steel and Galvanized-Metal:

1. Waterborne System:

a. Prime Coat: Universal Water Based Primer).
b. Intermediate Coat: Waterborne Coating.
c. Topcoat: Waterborne Coating (semigloss).

C. Gypsum Board:

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Interior latex primer/sealer.
b. Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
c. Topcoat: Institutional low-odor/VOC interior latex (eggshell).

D. Wood (Opaque finish):

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Interior latex primer/sealer for WOOD.
b. Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
c. Topcoat: Institutional low-odor/VOC interior latex (eggshell).

E. Wood (Natural finish):

1. Institutional Low-Odor/VOC polyurethane system:

a. Prime Coat: Interior latex primer/sealer.
b. Filler Coat: Institutional low-odor/VOC paste wood filler.
c. Intermediate Coat: Institutional low-odor/VOC urethane matching topcoat.
d. Topcoat: Institutional low-odor/VOC urethane (gloss).

F. Existing Concrete:

1. Concrete re-finishing system:

a. Preparation: Dry diamond grinding process, repeated as necessary to a depth no greater than 1/32".

b. Two-Coat Application: FGS Hardener Plus.

END OF SECTION 099123