SECTION 09911 - PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes surface preparation and field painting of exposed interior items and surfaces.

B. Work includes painting and finishing of interior exposed items and surfaces throughout project, except as otherwise indicated.

1. Surface preparation, priming and coats of paint specified are in addition to shop-priming and surface treatment specified under other sections of work.

C. Work includes field painting of exposed bare and covered pipes and ducts, and of hangers, exposed steel and iron work, and primed metal surfaces of equipment, installed under mechanical and electrical work, except as otherwise indicated.

D. Surfaces to be painted: Except where natural finish of material is specifically noted as a surface not to be painted, paint exposed surfaces whether or not colors are designated in “schedules”. Where items or surfaces are not specifically mentioned, paint the same as similar adjacent materials or areas. If color or finish is not designated, Owner will select these from standard colors or finishes available.

1.2 DEFINITIONS

A. General, standard coating terms defined in ASTM D 16 apply to this Section:

1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85° meter.
2. Eggshell refers to low-sheen finish with a gloss range between 20 and 35 when measured at a 60° meter.
3. Semigloss refers to medium-sheen finish with a gloss range between 35 and 70 when measured at a 60° meter.
4. Full gloss refers to high-sheen finish with a gloss range more than 70 when measured at a 60° meter.

1.3 SUBMITTALS

A. Product Data: For each product indicated.

B. Submit all color samples for approval before application.

1.4 QUALITY ASSURANCE

A. Submit samples on the following substrates for the Architect's review of color and texture only:
   1. Painted Wood: Provide two 12-inch (300-mm) square samples of each color and material on hardboard.
   2. Stained or Natural Wood: Provide two 4-by-8 inch (100-by-200-mm) samples of natural- or stained-wood finish on actual wood surfaces.
   3. Ferrous Metal: Provide two 4-inch- (100-mm-) square samples of flat metal and two 8-inch- (200-mm-) long samples of solid metal for each color and finish.

B. Single Source Responsiblity: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer and use only within recommended limits.

1.5 PROJECT CONDITIONS

A. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain storage containers in a clean condition, free of foreign materials and residue.

B. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 and 90 deg F (10 and 32 deg C).

C. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 and 95 deg F (7 and 35 deg C).

D. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

1.6 EXTRA MATERIALS

A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.

   1. Quantity: Three (3%) percent, but not less than 1 gal. (3.8 L) or 1 case, as appropriate, of each material and color applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers:

   1. All items specified are Benjamin Moore products. Other manufacturers acceptable as substitutions:

      a. Sherwin Williams.
      b. ICI Dulux Paints.
      c. Duron Paints.

2. **No substitutions permitted.**

2.2 PAINT MATERIALS, GENERAL

A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

2.3 PREPARATORY COATS

A. Interior Primer: Interior latex-based or alkyd primer of finish coat manufacturer and recommended in writing by manufacturer for use with finish coat and on substrate indicated.

1. Ferrous-Metal Substrates: Quick drying, rust-inhibitive metal primer.
2. Zinc-Coated Metal Substrates: Galvanized metal primer.
3. Where manufacturer does not recommend a separate primer formulation on substrate indicated, use paint specified for finish coat.

PART 3 - EXECUTION

3.1 APPLICATION

A. Comply with procedures specified in PDCA P4 for inspection and acceptance of surfaces to be painted.

B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.

C. Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

D. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.

1. Provide barrier coats over incompatible primers or remove and reprime.

2. Cementitious Materials: Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
3. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.

    a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
    b. Prime, stain, or seal wood to be painted immediately on delivery. Prime edges, ends, faces, undersides, and back sides of wood, including cabinets, counters, cases, and paneling.
    c. If transparent finish is required, backprime with spar varnish.
    d. Backprime paneling on interior partitions where masonry, plaster, or other wet wall construction occurs on back side.
    e. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.

4. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC's recommendations.

    a. Clean steel surfaces clean as recommended by paint system manufacturer and according to SSPC-SP 3.
    b. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
    c. Touch up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by paint manufacturer, and touch up with same primer as the shop coat.

5. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents so surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.

E. Material Preparation:

1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.

F. Exposed Surfaces: Include areas visible when permanent or built-in fixtures, grilles, convector covers, covers for finned-tube radiation, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.

1. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.

2. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
3. Paint back sides of access panels and removable or hinged covers to match exposed surfaces.

G. Sand lightly between each succeeding enamel or varnish coat.

H. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

1. Omit primer over metal surfaces that have been shop primed and touchup painted.
2. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance.

I. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.

1. All systems shall consist of a primer and 2 finish coats for a total of 3 coats.

J. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide total dry film thickness of the entire system as recommended by manufacturer.

K. Mechanical and Electrical Work: All exposed plumbing and electrical equipment, apparatus, piping and fittings (other than non-ferrous) and ductwork shall be painted with finish to match adjoining work. No finish paint shall be applied over unprimed metal surfaces. Prime coats for mechanical and electrical items are specified under sections of specifications to which they pertain.

L. Prime Coats: Before applying finish coats, apply a prime coat, as recommended by manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.

M. Galvanized items shall be painted only when exposed in areas of offices, sales area ceilings, and in locker rooms, washrooms and toilets. Properly prime (pickle) galvanized surfaces prior to painting (2 coats). All other galvanized items shall be cleaned with solvents. Exposed pipe threads of galvanized pipe and field welds on galvanizing steel shall be touched up with “Galvanox” or equal metal coating.

N. The foregoing requirements shall include items within buildings, on exterior of buildings, on roofs of buildings and above grade items on site. Al l exterior pipe and covers shall be painted.

O. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.

P. Transparent (Clear) Finishes: Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel, nail holes, or other surface imperfections.

Q. Field Quality Control: The Owner reserves the right to engage the services of an independent testing agency to sample the paint material being used. Samples of material delivered to the Project will be taken, identified, sealed, and certified in the presence of the Contractor.

1. The testing agency will perform appropriate tests as required by the Owner.
2. If tests show material being used does not comply with specified requirements, the Contractor shall remove noncomplying paint from the site, pay for testing, and repaint surfaces previously coated with the rejected paint. If necessary, the Contractor may be required to remove rejected paint from previously painted surfaces, if, on repainting with specified paint, the 2 coatings are incompatible.

3.2 CLEANING AND PROTECTING

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

B. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.

C. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.

1. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.3 INTERIOR PAINT SYSTEMS:

A. IPS-1 Metals: Interior (Doors, frames, all stair components, trash compactor door):

Not Used

B. IPS-2 Metals: Exposed Ceiling Deck and Structural Steel, All Conduits, Pipes, Beams, Joists, Columns:

Not Used

C. IPS-3 Metals: Interior of Emergency Doors and Frames:

Not Used

D. IPS-4 Metals: Bollards - Interior:

1. Touch up shop prime coat as needed.
2. Two (2) coats of Benjamin Moore Satin Iron Clad #C163; (Safety Yellow #15).

E. IPS-5 Drywall: Exposed to Sales Area:

1. Prime coat: One (1) coat of Moore's Latex Primer and Underbody #216 (White #00).
2. Finish: Two (2) coats Moore's Aqua Velvet #319 Eggshell Finish (Super White #01).

F. IPS-6 Drywall: Interiors of Offices:

Not Used

G. IPS-7 Drywall: Epoxy-Polyester Finish for Toilet Rooms and Janitor's Closet (where not covered by FRP):

Not Used

H. IPS-8 Wood Opaque:

Not Used

I. IPS-9 Wood Transparent:

Not Used

J. IPS-10 Exposed Interior Surface of Concrete Block:

Not Used

K. IPS-11 Concrete Floor: Stripe:

1. Finish: One (1) coat Moore's M56 Safety and Zone Marking Alkyd (Yellow #10). Contractor shall verify lineal feet with Architect and shall include this item in bid.

L. IPS-12 Over Exposed Fireproofing:

Not Used

3.4 SURFACE STRIPING:

A. Floor and concrete pavement shall be striped as indicated on drawings. Material shall be standard brand of alcohol soluble traffic paint containing chlorinated rubber.

B. Color: Yellow, full bodied. All striping 4" wide, uniform, with sharp, straight edges and neat intersections. Furnishing of material and paint striping shall be done by licensed and insured parking lot service contractor only.

C. Paint 4" wide single line stripe at all employee parking as shown on drawings.

D. Paint 4" wide stripes marking truck lanes on aprons, dock walls, and trailer parking.

END OF SECTION