

## SECTION 09910

### PAINTING

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. **Work In This Section:** Painting work indicated on the Drawings, schedules, and specified herein.
  - 1. Include painting and finishing of exterior and interior items and surfaces throughout the project, except as otherwise noted.
  - 2. Surface preparation, touch-up and coats of paint specified herein are in addition to shop-priming and surface treatment specified under other Sections of work.
  - 3. Include field painting of items installed under work included in the Mechanical and Electrical Divisions, except as otherwise indicated.
  - 4. Exterior painting work includes, but is not necessarily limited to:
    - a. Miscellaneous metal work exposed to the exterior, including protective bollards, not specifically mentioned in Section 09800.
- B. **Extent of Painting:** Paint all exposed surfaces, except where the material is specifically noted as a surface not to be painted. Where items or surfaces are not specifically mentioned, paint these the same as adjacent similar materials or areas.
  - 1. Paint surfaces in unoccupied areas.
- C. **Related Sections:**
  - 1. Section 05100 - Structural Steel: Shop-priming structural steel.
  - 2. Section 05500 - Miscellaneous Metal Fabrications: Shop-priming ferrous metal.
  - 3. Section 05511 - Shop-Fabricated Galvanized Metal Stairs and Railings
  - 4. Section 05721 - Ornamental Railings
  - 5. Section 06400 - Architectural Woodwork: Shop-priming interior architectural woodwork.
  - 6. Section 08110 - Steel Doors and Frames: Shop-priming steel doors and frames.
  - 7. Section 08310 - Access Doors: Shop-priming steel doors and frames.
  - 8. Section 09250 - Gypsum Board Assemblies: Painting for gypsum board.
  - 9. Section 09800 - Special Coatings: Exterior and interior items to receive special coatings.
  - 10. DIVISIONS 15 and 16: Painting mechanical and electrical work
    - a. Piping color coding shall be coordinated with Architect.

##### 1.2 PAINTING NOT INCLUDED

- A. **Shop Priming:** Unless otherwise specified, shop priming of ferrous metal items is included under the various sections for structural and miscellaneous metal, hollow metal work, and similar items.

- B. **Pre-Finished Items:** Do not include painting when factory finishing or installer finishing is specified for such items as (but not limited to) exterior and interior prefinished metal panels, acoustic wall and ceiling panels, prefinished roofing and siding, and finished mechanical and electrical equipment including light fixtures, switchgear and distribution cabinets.

### 1.3 SURFACES NOT PAINTED

- A. **Concealed Surfaces:** Painting is not required on surfaces such as walls or ceilings in concealed and generally inaccessible spaces such as furred areas, pipe spaces, duct shafts, elevator shafts, and above suspended ceilings,
- B. **Finished Metal Surfaces:** Anodized aluminum, factory finished aluminum, stainless steel, chromium plate, bronze and similar finished materials will not require finish painting.
- C. **Operating Parts and Labels:** Moving parts of operating units, such as valve and damper operators, linkages, sensing devices, or motor and fan shafts, will not require finish painting. Do not paint over any code required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name or nomenclature plates.
- D. **Concrete Masonry Units:** Unpainted, except where paint or fresh epoxy finishes are designated in the Finish Schedules and/or plan.
- E. **Colored Concrete Masonry:** Integrally colored concrete masonry (smooth and textured) will not require finish painting.
- F. **Finished Materials:** Brick, glass, stone, plastic laminate, ceramic tile, and similar finished materials will not be painted.

### 1.4 REFERENCES

- A. **Industry Standards:** The Industry Standards listed below refer to the latest date of issue or edition, unless otherwise indicated.
  - 1. ASTM D 16 - Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products.
  - 2. ASTM A 780 - Practice for Repair of Damaged Hot-Dip Galvanized Coatings.
  - 3. PDCA Architectural Specification Manual.
  - 4. SSPC - Steel Structures Painting Council.

### 1.5 DEFINITIONS:

- A. **"Paint"** as used herein means all coating systems materials, including primers, emulsions, epoxies, enamels, sealers and fillers.
- B. **"Exposed surfaces"** include portions of the completed construction which are visible when permanent and built-in fixtures and equipment are in place.
- C. **"Exterior"** includes portions of the completed construction which are subject to outdoor ambient temperature and humidity conditions, including truck docks and entries.

## 1.6 SYSTEM DESCRIPTION

- A. Exposed Surfaces:** Paint exposed surfaces whether or not colors are designated in schedules, except where a surface or material is specifically indicated not to be painted or is to remain natural. Where an item/surface is not specifically mentioned, paint the same as similar adjacent materials or surfaces. If color or finish is not designated, Architect will select from standard colors/finishes available.
1. Painting includes field-painting exposed bare and covered pipes and ducts (including color coding), hangers, exposed steel and iron work, access panels, and primed metal surfaces of mechanical and electrical equipment.
- B. Prefinished Items:** Painting is not required on prefinished items, finished metal surfaces, concealed surfaces, operating parts, and labels.
1. Prefinished items not to be painted include, but are not limited to, the following:
    - a. Acoustic materials.
    - b. Finished mechanical and electrical equipment.
    - c. Light fixtures.
    - d. Switchgear.
    - e. Distribution cabinets.
    - f. Metal ceiling panels.
  2. Concealed surfaces not to be painted include wall or ceiling surfaces in the following generally inaccessible areas:
    - a. Foundation spaces.
    - b. Furred areas.
    - c. Pipe spaces.
    - d. Duct shafts.
  3. Finished metal surfaces not to be painted include:
    - a. Anodized aluminum.
    - b. Stainless steel.
    - c. Chromium plate.
    - d. Copper.
    - e. Bronze.
    - f. Brass.
  4. Operating parts not to be painted include moving parts of operating equipment, such as the following:
    - a. Valve and damper operators.
    - b. Linkages.
    - c. Sensing devices.
    - d. Motor and fan shafts.
  5. Labels: Do not paint over Underwriters Laboratories, Factory Mutual or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

## 1.7 SUBMITTALS

- A. **Product Data:** Submit product data for each paint system specified, including block fillers and primers.
  - 1. Provide the manufacturer's technical information including label analysis and instructions for handling, storage, and application of each material proposed for use.
  - 2. List each material and cross-reference the specific coating, finish system, and application. Identify each material by the manufacturer's catalog number and general classification.
  - 3. Certification by the manufacturer that products supplied comply with local regulations controlling use of volatile organic compounds (VOCs) and/or lead content.
- B. **Samples:** Submit samples for initial color selection in the form of manufacturer's color charts showing full range of colors.
- C. **Samples for Verification Purposes:** Provide samples of each color and material to be applied, with texture to simulate actual conditions, on representative samples of the actual substrate.
  - 1. Provide stepped samples, defining each separate coat, including block fillers and primers. Use representative colors when preparing samples for review. Resubmit until required sheen, color, and texture are achieved.
  - 2. Provide a list of material and application for each coat of each sample. Label each sample as to location and application.
  - 3. Submit samples on the following substrates for Architect 's review of color and texture only:
    - a. CMU: Provide two samples of each color and material on CMU.
    - b. Ferrous Metal: Provide two 8-inch square samples of flat metal and two 8 inch long samples of solid metal for each color and finish.
    - c. Gypsum Board: Provide two 10" x 10" stepped samples of finish on gypsum board showing primer plus two finish coats.

## 1.8 QUALITY ASSURANCE

- A. **Applicator Qualifications:** Engage an experienced applicator who has completed painting system applications similar in material and extent to those indicated for the Project that have resulted in a construction record of successful in-service performance.
- B. **Protection of finished surfaces:** Contractor shall provide adequate protection of finished surfaces, draping walls and other finished surfaces to prevent overspray. Protection shall be erected prior to painting commencement.
- C. **Single-Source Responsibility:** Provide primers and undercoat paint produced by the same manufacturer as the finish coats. Use only thinners approved by paint manufacturer, and use only within recommended limits.
- D. **Coordination of Work:** Review other Sections of these specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates. Upon request from other trades, furnish information on finish materials to

be used, to enable use of compatible prime coats. Notify the Architect of anticipated problems using the specified materials.

**E. Industry Standards:**

1. Comply with the recommendations of the Painting and Decorating Contractors of America, as contained in "PDCA Architectural Specification Manual", except where conflicting and more stringent requirements are specified in this Section.
2. Conform to definitions of terms in ASTM D 16 in interpreting requirements of this specification Section.
3. Comply with ASTM D 16 - Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products.

**F. Mockups and Field Samples:** On wall surfaces and other exterior and interior components, duplicate finishes of prepared samples. Provide full-coat finish samples on at least 100 sq. ft. of surface of wall and ceiling surfaces until required sheen, color, and texture are obtained; simulate finished lighting conditions for review of in-place work.

1. Items other than wall and ceiling surfaces: Architect will designate items or areas required.
2. Final acceptance of colors will be from job-applied samples.
3. The Architect will select one room or one 10'-0" x 10'-0" or equivalent area surface to represent surfaces and conditions for each type of coating and substrate to be painted. Apply coatings in this room or surface according to the schedule or as specified, for approval by Architect.
  - a. After finishes are accepted, this room or surface will be used to evaluate coating systems of a similar nature.

## **1.9 DELIVERY, STORAGE, AND HANDLING**

**A. Delivery:** Deliver materials to the job site in the manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:

1. Product name or title of material.
2. Product description (generic classification or binder type).
3. Manufacturer's stock number and date of manufacture.
4. Contents by volume, for pigment and vehicle constituents.
5. Thinning instructions.
6. Application instructions.
7. Color name and number.

**B. Storage:** Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F. Maintain containers used in storage in a clean condition, free of foreign materials and residue.

1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

## 1.10 JOB CONDITIONS

- A. **Water-based Paints:** Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 deg F and 90 deg F.
- B. **Solvent-thinned Paints:** Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 deg F and 95 deg F.
- C. **Environmental Conditions:** Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85 percent; or at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.
  - 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by the manufacturer during application and drying periods.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. **Approved Paint Manufacturers:**
  - 1. The Sherwin Williams Company (S W).
  - 2. Benjamin Moore and Co. (MOORE).
  - 3. ICI Dulux (ICI).
  - 4. Monarch (Monarch).
  - 5. PPG Industries, Pittsburgh Paints (PPG).
  - 6. Pratt and Lambert (P & L).
- B. **Approved non-slip coating manufacturers**
  - 1. Durabak Company
  - 2. Seal-Krete
  - 3. American Safety Technologies

### 2.2 GENERAL

- A. **Paint Coordination:** Provide topcoats, which are compatible with primers. Review other specifications Sections to ensure compatibility of total coatings system for various substrates. Notify the Architect of anticipated problems using specified coating systems with substrates primed by others.
- B. **Material Quality:** Provide the best-quality trade sale grade of the various types of coatings, as regularly manufactured by acceptable paint materials manufacturers. Provide undercoat paint produced by the same manufacturer as the finish coats. Use only thinners approved by the paint manufacturer, and use only within recommended limits.
- C. **Material Compatibility:** Provide block fillers, primers, finish coat materials, and related materials that are compatible with one another and the substrates indicated

under conditions of service and application, as demonstrated by the manufacturer based on testing and field experience.

## 2.3 MATERIALS

- A. **Primer Coatings:** Provide the manufacturer's recommended factory-formulated primers that are compatible with the substrate and finish coats indicated.
- B. **Undercoat Materials:** Provide the manufacturer's recommended factory-formulated undercoat materials that are compatible with the substrate and finish coats indicated.
- C. **Finish Coat Materials:** Provide the manufacturer's recommended factory-formulated finish-coat materials that are compatible with the substrate and undercoats indicated.
- D. **Galvanizing Repair Compound:** Zinc-rich paint complying with ASTM A780.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. **Examination:** Examine substrates and conditions under which painting will be performed for compliance with paint application requirements. Surfaces receiving paint must be thoroughly dry before paint is applied.
  - 1. Do not begin to apply paint until unsatisfactory conditions have been corrected.
  - 2. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.
- 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.
  - 1. Notify the Architect about anticipated problems using the materials specified over substrates primed by others.

### 3.2 PREPARATION

- A. **General:** Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted, or provide surface-applied protection prior to surface preparation and painting. Remove these items, if necessary, to completely paint the items and adjacent surfaces. Following completion of painting operations in each space or area, have items reinstalled by workers skilled in the trades involved.
- B. **Cleaning:** Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove oil and grease prior to cleaning. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. **Surface Preparation:** Clean and prepare surfaces to be painted according to the manufacturer's instructions for each particular substrate condition and as specified.

1. Provide barrier coats over incompatible primers or remove and reprime. Notify Architect in writing about anticipated problems using the specified finish-coat material with substrates primed by others.
2. Cementitious Materials: Prepare concrete, concrete masonry block, cement plaster, and mineral-fiber-reinforced cement panel surfaces to be painted. 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.
  - a. Use abrasive blast-cleaning methods if recommended by the paint manufacturer.
  - b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces where moisture content exceeds that permitted in manufacturer's printed directions.
  - c. Acid-etch concrete floor surfaces to receive special coatings (if required by manufacturer) with a 5 percent solution of muriatic acid or other etching cleaner. Flush the floor with clean water to remove acid, neutralize with ammonia, rinse, allow to dry, then vacuum.
3. 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 recommendations of the Steel Structures Painting Council (SSPC).
  - a. Blast steel surfaces clean as recommended by the paint system manufacturer and according to requirements of SSPC specification SSPC-SP 5.
  - 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 the paint manufacturer, and touch up with the same primer as the shop coat.
4. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents so that the surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.
5. 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 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 backsides of wood, including cabinets, counters, cases, and paneling.
  - c. When transparent finish is required, backprime with spar varnish.
  - d. Backprime paneling on interior partitions where masonry, plaster, or other wet wall construction occurs on backside.
  - e. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.



- D. **Materials Preparation:** Carefully mix and prepare paint materials according to manufacturer's directions.
  - 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. Remove film and if necessary, strain material before using.
  - 3. Use only thinners approved by the paint manufacturer and only within recommended limits.
- E. **Tinting:** Tint each undercoat a lighter shade to facilitate identification of each coat where multiple coats of the same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

### 3.3 APPLICATION

- A. **General:** Apply paint according to manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. **Application:** Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
  - 1. Paint colors, surface treatments, and finishes are indicated in the schedules.
  - 2. Provide finish coats that are compatible with primers used.
  - 3. The number of coats and the film thickness required are the same regardless of the application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. Sand between applications where sanding is required to produce a smooth even surface according to the manufacturer's directions.
  - 4. Apply additional coats if undercoats, stains, or other conditions show through final coat of paint until paint film is of uniform finish, color, and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners, receive a dry film thickness equivalent to that of flat surfaces.
  - 5. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convactor covers, covers for finned tube radiation, grilles, and similar components are in place. Extend coatings in these areas, as required, to maintain the system integrity and provide desired protection.
  - 6. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, nonspecular black paint.
  - 7. Paint the backsides of the access panels and removable or hinged covers to match exposed surfaces.
  - 8. Finish interior of wall and base cabinets and similar field-finished casework to match exterior.
  - 9. Finish exterior doors on tops, bottoms, and side edges same as exterior faces.
  - 10. Sand lightly between each succeeding enamel or varnish coat.
  - 11. Omit primer on metal surfaces that have been shop-primed and touch-up painted.

- C. **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. Allow sufficient time between successive coats to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.
- D. **Application Methods:** Apply paints and coatings by brush, roller, spray, or other applicators according to the manufacturer's directions.
  - 1. Brushes: Use brushes best suited for the material applied.
  - 2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by the manufacturer for the material and texture required.
  - 3. Spray Equipment: Use airless spray equipment with orifice size as recommended by the manufacturer for the material and texture required.
- E. **Minimum Coating Thickness:** Apply materials no thinner than the manufacturer's recommended spreading rate. Provide the total dry film thickness of the entire system as recommended by the manufacturer.
- F. **Mechanical and Electrical Work:** Painting mechanical and electrical work is limited to items exposed in mechanical equipment rooms and in occupied spaces.
- G. **Block Fillers:** Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.
- H. **Prime Coats:** Before applying finish coats, apply a prime coat of material, as recommended by the 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.
- I. **Stipple Enamel Finish:** Roll and redistribute paint to an even and fine texture. Leave no evidence of rolling such as laps, irregularity in texture, skid marks, or other surface imperfections.
- J. **Pigmented (Opaque) Finishes:** Completely cover 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.
- K. **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.
- L. **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.

### 3.4 FIELD QUALITY CONTROL

- A. **Testing:** The Owner reserves the right to invoke the following test procedure at any time and as often as the Owner deems necessary during the period when paint is being applied:
1. The Owner will 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.
  2. The testing agency will perform appropriate tests for the following characteristics as required by the Owner:
    - a. Quantitative materials analysis.
    - b. Abrasion resistance.
    - c. Apparent reflectivity.
    - d. Flexibility.
    - e. Washability.
    - f. Absorption.
    - g. Accelerated weathering.
    - h. Dry opacity.
    - i. Accelerated yellowness.
    - j. Recoating.
    - k. Skinning.
    - l. Color retention.
    - m. Alkali and mildew resistance.
    - n. Dry film thickness.
    - o. Lead content.
  3. If test results show material being used does not comply with specified requirements, the Contractor may be directed to stop painting, remove noncomplying paint, pay for testing, repaint surfaces coated with rejected paint, and remove rejected paint from previously painted surfaces if, upon repainting with specified paint, the two coatings are incompatible.

### 3.5 CLEANING

- A. **Cleanup:** At the end of each work day, remove empty cans, rags, rubbish, and other discarded paint materials from the site.
1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping. Be careful not to scratch or damage adjacent finished surfaces.
  2. Remove masking and protective covering, including adhesive residue.
  3. Leave factory finish surfaces clean and free of paint.
  4. Remove tools, rubbish, equipment and surplus and waste materials.
- B. **Completed Work:** Match approved samples for color, texture and coverage. Remove, refinish, or repaint work not in compliance with specified requirements.
1. Edges of paint shall be sharp, clean and straight, without overlapping.

2. Provide finishes free of holidays, sags, laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, and other surface imperfections.
3. At the completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.

### 3.6 PROTECTION

- A. **Protection:** Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect, and leave in an undamaged condition.
- B. **Fresh Paint:** Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.
- C. **Touch-Up:** At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.7 EXTERIOR PAINT SCHEDULE

- A. **General:** Provide the following paint systems for the various substrates indicated.
- B. **Ferrous and Galvanized Metal:** Include galvanized stairs, doors, frames, handrails, guardrails, miscellaneous metal fabrications, and other steel items. Two finish coats over primer. Field-applied primer is not required on shop-primed items; touch-up as necessary.
  1. Non-galvanized metal primer, alkyd rust-inhibitive primer, 2.0 - 5.0 dry mils minimum.
    - PPG: Aquapon W.B. Epoxy
    - Tnemec: Series 135 Chembuild.
    - SW: Kem Bond HS Universal Metal Primer, B50AZ8 Gray.
  2. Galvanized metal primer, 4.0 - 6.0 dry mils minimum.
    - PPG: PittGuard Rapid Coat 95 Series
    - Tnemec: Series 27 Typoxy or 66 H.B. Epoxoline.
    - S-W: Epo-Plex Multi-Mil Waterborne Epoxy
    - Or: Pro-Cryl Universal Primer (2.0 - 4.0 dry mils)
  3. Finish coat, waterborne acrylic epoxy, semi-gloss, 4.0 - 6.0 dry mils minimum.
    - PPG: Aquapon W.B. Epoxy
    - Tnemec: Series 114 Tneme-Tufcoat.
    - SW: Epo-Plex Multi-Mil Water Based Epoxy Finish, Part A, B71-100 Series; Part B, B71V110 Low Lustre Hardener.
    - Or SherCryl HPA High Performance Acrylic, B66-300 Series, Semi-Gloss Finish (2.5 - 4.0 dry mils).

### 3.8 INTERIOR PAINT SCHEDULE

**A. Gypsum Drywall:** Satin Latex Finish; 2 finish coats over a primer.

1. Primer: White, interior, latex-based primer (4 - 20 wet mils, 0.8 - 4.4 dry mils minimum).

Devoe: 50801 Wonder-Tones Latex Primer and Sealer.

Glidden: 5019 PVA Primer.

PPG: 6-2 or 6-4 Speedhide Quick-Dry Latex Primer Sealer.

S-W: PrepRite High Build Interior Latex Primer/Surfacer, B28W601.

ICI Ultra-Hide Airless High Build Latex Flat Int. Primer, 1260-XXXX / 32% V.S.

Moore: Fresh Start® All Purpose 100% Acrylic Primer 023

2. 2 Coats Lusterless (flat) emulsion finish, intermediate and top coats for gypsum board ceilings (4 wet mils, 1.3 dry mils per coat minimum).

Devoe: 36XX Wonder-Tones Latex Flat Wall Paint.

Glidden: 3400 Spred Satin Latex Wall Paint.

PPG: 6-70 Speed Hide Flat Latex Paint.

S-W: Pro-Mar 200 Latex Flat Wall Paint, B30W200 Series.

ICI Dulux Ultra Professional Flat Latex Int. Finish, 1200-XXXX / 35% V.S.

Moore: Regal® Premium Interior Finishes Matte Finish 221

3. 2 Coats Egg Shell emulsion finish, intermediate and top coats, (4 wet mils, 1.6 dry mils per coat minimum)

Devoe: 34XX Wonder-Tones Latex Egg-Shell Wall Paint.

Glidden: 3400 Spred Satin Latex Wall Paint.

PPG: 66-411 SpeedHide Interior Egg-Shell Latex Paint.

S-W: Pro-Mar 200 Interior Latex Eggshell Wall Paint, B20W2200 Series.

ICI Dulux Ultra Professional Eggshell Latex Int. Finish, 1403-XXXX / 35% V.S.

Moore: Regal® Premium Interior Finishes AquaVelvet® Eggshell 319

4. 2 Coats Semigloss emulsion finish, intermediate and top coats (4 wet mils, 1.5 dry mils per coat minimum)

Devoe: 38XX Wonder Tones Interior Acrylic Latex Semi-Gloss Enamel.

Glidden: 8200 Spred Ultra Semi-Gloss Enamel.

PPG: 6-510 Series Speedhide Semi-Gloss Latex Enamel.

S-W: Pro-Mar 200 Latex Semi-Gloss Enamel, B31W200 Series.

ICI: Dulux Ultra Professional Semi-Gloss Latex Int. Finish, 1407-XXXX / 35% V.S.

Moore: Premium Interior Finishes Low Lustre Waterborne Satin Impervo® 314

**B. Ferrous Metal (except structural steel):** Include doors, frames, handrails, guardrails, miscellaneous metal fabrications, and other steel items. Two finish coats over primer with total dry film thickness not less than 9 mils.

1. Non-Galvanized Metal Primer: Quick-drying, rust-inhibitive alkyd primer (2.0 - 5.0 dry mils minimum).
  - PPG: 98-46/98-98 epoxy primer
  - Porter: 296 Glyptex
  - Tnemec: Tnemec Series 10 Primer.
  - SW: Kem Bond HS Universal Metal Primer, B50AZ8 Gray.
2. First and Second Coat: Waterborne acrylic epoxy, semi-gloss (4.0 - 6.0 dry mils per coat minimum).
  - PPG: Aquapon W.B. Epoxy
  - Porter: 9371 Duraglaze HD (two coats if necessary to achieve dry film thickness)
  - Tnemec: Series 113 Tneme-Tufcoat.
  - SW: Epo-Plex Multi-Mil Water Based Epoxy Finish, Part A, B71-100 Series; Part B, B71V110 Low Lustre Hardener.  
Or SherCryl HPA High Performance Acrylic, B66-300 Series, Semi-Gloss Finish (2.5 - 4.0 dry mils minimum).

**C. Galvanized Metal:** (except structural steel): Include doors, frames, handrails, guardrails, miscellaneous metal fabrications, and other steel items. Two finish coats over primer with total dry film thickness not less than 9 mils. Two finish coats over a primer.

1. Primer: Galvanized metal primer; total dry film thickness of not less than 2.5 mils.
  - PPG: 98-46/98-98 epoxy primer
  - Porter: 4361 or 4300 epoxy
  - Tnemec: Series 66 H.B. Epoxoline.
  - S-W: Tile Clad High Solids Epoxy, Part A, B62Z -100 Series; Part B, B60VZ75 Eg-Shel Hardener (2.5 - 4.0 dry mils).
2. First and Second Coat: Waterborne acrylic epoxy, semi-gloss (4.0 - 6.0 dry mils per coat minimum).
  - PPG: Aquapon W.B. Epoxy
  - Porter: 9371 Duraglaze HD (two coats if necessary to achieve dry film thickness)
  - Tnemec: Series 113 Tneme-Tufcoat.
  - SW: Epo-Plex Multi-Mil Water Based Epoxy Finish, Part A, B71-100 Series; Part B, B71V110 Low Lustre Hardener.  
Or SherCryl HPA High Performance Acrylic, B66-300 Series, Semi-Gloss Finish (2.5 - 4.0 dry mils).

**D. Schedule:** Refer to Drawings for paint colors, if colors are not selected, Architect shall select from manufacturer's full range.

### 3.9 HYDRONIC PIPING SCHEDULE

- A. General:** All piping, insulated or uninsulated, exposed in mechanical room, central equipment room, stairwells, etc. shall receive two coats of paint in color specified in following schedule:

1. Fire Protection:
  - a. Color: Red Safety Red
  - b. Stencil: Fire line SW4081
  - c. Letter Designation: F
2. Sprinkler:
  - a. Color: Red Safety Red
  - b. Stencil: Sprinkler SW4081
  - c. Letter Designation: S
3. Chilled Water Supply:
  - a. Color: Light Blue Spillway
  - b. Stencil: Chilled Water Supply SW4062
  - c. Letter Designation: CHS
4. Chilled Water Return:
  - a. Color: Darker Blue Robotic Blue
  - b. Stencil: Chilled Water Return SW4063
  - c. Letter Designation: CHR
5. Gas:
  - a. Color: Yellow Safety Yellow
  - b. Stencil: Gas SW4084
  - c. Letter Designation: G
6. Heating Water Supply:
  - a. Color: Orange International Orange
  - b. Stencil: Heat Water Supply SW4082
  - c. Letter Designation: HS
7. Heating Water Return:
  - a. Color: Lighter Orange Power Orange
  - b. Stencil: Heat Water Return SW4074
  - c. Letter Designation: HR
8. Condenser Water Supply From Cooling Tower:
  - a. Color: Light Green Emerald Green
  - b. Stencil: Condenser Water Supply SW4069
  - c. Letter Designation: CS
9. Condenser Water Return To Cooling Tower:
  - a. Color: Darker Green Generator Green
  - b. Stencil: Condenser Water Return SW4070
  - c. Letter Designation: CR

END OF SECTION