

DIVISION 9 - FINISHES

SECTION 09900

PAINTING

PART 1: GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SECTION INCLUDES

- A. Surface preparation and field application of paints and coatings.
- B. 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 or surface is not specifically mentioned, paint the same as similar adjacent materials or surfaces after consultation and approval by Architect and Interior Designer. If color or finish is not designated, the Architect will select from standard colors or finishes available.
- C. Prefinished items not to be painted include the following factory-finished components:
 - 1. Acoustic material.
 - 2. Prefinished architectural woodwork and casework, laboratory tables and casework, furniture.
 - 3. Finished mechanical and electrical equipment.
 - 4. Light fixtures.
 - 5. Switchgear.
 - 6. Distribution cabinets.
- D. Concealed surfaces not to be painted include wall or ceiling surfaces in the following generally inaccessible areas:
 - 1. Foundation spaces.
 - 2. Furred areas.
 - 3. Utility chases or tunnels.
 - 4. Pipe spaces.
 - 5. Duct shafts.
- E. Finished metal surfaces not to be painted include:
 - 1. Anodized aluminum.
 - 2. Stainless steel.
 - 3. Chromium plate.
 - 4. Copper.
 - 5. Bronze.
 - 6. Brass.
- F. Operating parts not to be painted include moving parts of operating equipment, such as the following:
 - 1. Valve and damper operators.
 - 2. Linkages.
 - 3. Sensing devices.
 - 4. Motor and fan shafts.

- G. Labels: Do not paint over UL, FM or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.
- H. Unfinished surfaces not to be painted include:
 - 1. Exposed brick on Exterior.
 - 2. Exposed tile on Interior on all levels.
 - 3. Exposed Terrazzo.
 - 4. Exposed Marble.

1.03 SYSTEM DESCRIPTION

- A. Finish Materials: Conform to applicable code for flame/smoke rating requirements.

1.04 SUBMITTALS

- A. Product Data: Provide data on all finishing products.
- B. Samples: Submit two samples, 4 x 4 inch Standard Color Chips (from available manufacturers) in size illustrating range of colors available for each surface finishing product scheduled. After color selection, the Architect will furnish colors for surfaces to be coated.

1.05 QUALITY ASSURANCE

- A. Applicator Qualifications: Engage an experience applicator who has completed painting systems applications similar in material and extent to those indicated for the Project that have resulted in a construction record of successful in- service performance. Applicator must demonstrate having experience in finishing surfaces in Historic Structures and have a proven background in such types of work.
- B. Single Source Responsibility: Provide primers and undercoat paint produced by the same manufacturer as the finish coats to insure quality, color mix, and material consistency.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Store and apply materials in environmental conditions required by manufacturer's instructions.
- B. Store materials in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F. Protect from freezing. Remove oily rags and waste daily.
- C. Workers Safety: Take necessary precautions to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing and application.

1.07 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 (7 deg C). 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 oil 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.

1.08 JOB CONDITIONS

- A. Apply water based paints only when temperature of surfaces to be painted and surrounding air temperatures are between 50 deg F and 90 deg F.
- B. 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. Do not apply painting 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.

PART 2: PRODUCTS

2.01 MATERIALS

- A. Available Manufacturers:
 - 1. Devoe and Raynolds Co. (Devoe).
 - 2. Benjamine Moore and Co. (Moore).
 - 3. The Sherwin-Williams Company (S-W).
 - 4. Pratt and Lambert (P & L).
 - 5. The Glidden Company (Glidden).
- B. Coatings: Ready mixed except field catalyzed coatings of good flow and brushing properties, capable of drying or curing free of streaks or sags.
- C. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials required to achieve the finishes specified.

2.02 FINISHES

- A. Refer to schedule at end of section for surface finish schedule.

PART 3: EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Verify that substrate conditions are ready to receive work.
- B. Measure moisture content of porous surfaces using an electronic moisture meter. Do not apply finishes unless moisture content is less than 12 percent.
- C. Correct minor defects and clean surfaces which affect work of this Section.
- D. Remove electrical plates and mask electrical outlets, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.

- E. Gypsum Board Surfaces: Fill minor defects with latex compounds. Spot prime defects after repair.
- F. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
- G. Concrete Surfaces Scheduled to Receive Paint Finish: Remove foreign matter. Remove oil and grease with a solution of tri-sodium phosphate, rinse well and allow to dry.
- H. Uncoated Ferrous Surfaces: Remove scale by wire brushing, sandblasting, clean by washing with solvent. Apply treatment of phosphoric acid solution. Prime paint after repairs.
- I. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust, hand clean, clean surfaces with solvent. Prime bare steel surfaces.
- J. Interior Wood Items Scheduled to Receive Paint Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats.
- K. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats.
- L. Exterior Wood Scheduled to Receive Paint Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior caulking compound after prime coat has been applied.
- M. Exterior Wood Scheduled to Receive Transparent Finish: Remove dust, grit, and foreign matter; seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes with tinted exterior caulking compound after sealer has been applied.

3.02 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Sand transparent finishes lightly between coats to achieve required finish.
- C. Where clear finishes are required, tint fillers to match wood.
- D. Back prime interior and exterior woodwork scheduled to receive paint finish with primer paint.
- E. Back prime interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.

3.03 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Refer to Section 15050 and Section 16050 for schedule of color coding, identification banding of equipment, ductwork piping, and conduit.
- B. Color code items in accordance with requirements indicated.
- C. Paint shop primed equipment.
- D. Remove unfinished louvers, grilles, covers, and access panels and paint separately. Paint dampers exposed behind louvers, grilles, convactor and baseboard cabinets to match face panels.

- E. Prime and paint insulated and exposed pipes, insulated and exposed ducts, hangers, brackets, collars and supports, except where items are prefinished.
- F. Paint interior surfaces of air ducts, and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint, to limit of sight line.
- G. Paint exposed conduit and electrical equipment occurring in finished areas except prefinished surfaces.
- H. Paint both sides and edges of plywood backboards.
- I. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.
- J. Mechanical Items to be painted include, but are not limited to, the following:
 - 1. Piping, pipe hangers and supports.
 - 2. Heat exchangers.
 - 3. Ductwork.
 - 4. Insulation
 - 5. Supports.
 - 6. Motors and mechanical equipment.
 - 7. Accessory items.
- K. Electrical Items to be painted include, but are not limited to, the following:
 - 1. Conduit and fittings.
 - 2. Switchgear.

3.04 CLEANING

- A. As work proceeds, promptly remove finishes where spilled, splashed, or spattered.
- B. Clean all glass adjacent to surfaces to be painted, stained or finished in any way.

3.05 PROTECTION

- A. Protect work of other trades, whether being painted or not, against spillage or damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.
- B. Provide proper signage indicating newly painted finishes.
- C. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.06 SCHEDULE - SHOP PRIMED ITEMS FOR SITE FINISHING

- A. Metal Fabrications Section 05500: Exposed surfaces of lintels, elevator pit ladders, stairs, railings, and all other fabricated items to be finished on site.

3.07 SCHEDULE - EXTERIOR SURFACES

- A. Wood - Painted (Opaque): (If applicable)
 - 1. Gloss Alkyd Finish: Two finish coats over primer with total dry film thickness not less than 3.5 mils.
 - a. Primer: Exterior Primer Coating:
 - 1. Devoe: 1102 All-Weather Alkyd House Paint Primer.
 - 2. Glidden: 1951 Spred Gel-Flo Base Coat.
 - 3. Moore: Moorwhite Primer #100

4. P & L: Permalize Exterior Primer.
 5. S & W: A-100 Exterior Alkyd Wood Primer Y24W20.
 - b. First and Second Coats: Gloss silicone alkyd enamel
 1. Devoe: Devshield 475
 2. P&L: TP 101 Tank Pro
 3. S-W: Steel Master 9500 B56 – 300 Series
- B. Wood Trim:
1. Deep-Color, High-Gloss Silicone Alkyd Finish: Two finish coats over primer.
 - a. Primer: Exterior Primer coating.
 1. Devoe: 1102 All-Weather Alkyd House Paint Primer.
 2. Glidden: 1951 Spread Gel-Flo Base Coat.
 3. Moore: Moorwhite Deep Color Base #100-04.
 4. P & L: Permalize Exterior Primer.
 5. S & W: A-100 Exterior Alkyd Wood Primer Y24W20.
 - b. First and Second Coats: Deep-color, exterior silicone alkyd resin trim paint.
 1. Devoe: Devshield 475
 2. P & L: TP 101 Tank Pro
 3. S-W: Steel Master 9500 B56-300 Series
- C. Ferrous Metal: Primer is not required on shop-painted items.
1. Full-Gloss Alkyd Enamel: Two finish coats over primer.
 - a. Primer: Synthetic rust-inhibiting primer.
 1. Devoe: 14920 Bar-Ox Quick Dry Metal Primer, Red.
 2. Glidden: 5210 Glid-Guard Universal Fast-Dry Metal Primer.
 3. Moore: IronClad Retardo Rust-Inhibitive Paint #163.
 4. P & L: Effecto Rust-inhibiting Primer.
 5. S-W: Kem Kromik Universal Metal Primer B50NZ6
 - b. First and Second Coats: Gloss alkyd enamel.
 1. Devoe: Devshield 475
 2. P & L: TP 101 Tank Pro
 3. S-W: Steel Master 9500 B56-300 Series
- D. Zinc-Coated Metal:
1. High-Gloss Silicone Alkyd Enamel: Two finish coats over primer.
 - a. Primer: Galvanized metal primer.
 1. Devoe: 13201 Mirrolac Galvanized Metal Primer.
 2. Glidden: 5229 Glid-Guard All-Purpose Metal Primer.
 3. Moore: IronClad Galvanized Metal Latex Primer #155.
 4. P & L: Interior Trim Primer.
 5. S-W: Galvite HS B50WZ30
 - b. First and Second Coats: Gloss silicone alkyd enamel.
 1. Devoe: Devshield 475
 2. P & L: TP 101 Tank Pro
 3. S-W: Steel Master 9500 B56-300 Series
- E. Exterior Stained Treated Wood Trusses and Glue Laminated Beams for Transparent Finish:
1. Sherwin Williams: Deckscape Waterborne Toner.
 2. Minimum one heavy coat application.
 3. Insure that exterior wood members are thoroughly dried to receive exterior stain.
 4. Do not stack exterior wood trusses or beams in direct sunlight where bleaching may occur.

3.08 SCHEDULE - INTERIOR SURFACES

- A. General: Provide the following paint systems for various substrates, as indicated.

- B. Gypsum Drywall Systems:
 - 1. Odorless Semi-gloss Latex Enamel Finish: Three coats with a total dry film thickness of not less than 2.5 mils.
 - a. Primer: White, interior, latex-based primer.
 - 1. Devoe: 50801 Wonder-Tones Latex Primer and Sealer.
 - 2. Glidden: 5019 PVA Primer.
 - 3. Moore: Moore's Latex Quick-Dry Prime Seal #201.
 - 4. P & L: Latex Wall Primer Z30001.
 - 5. S-W: Pro-Mar 200 Latex Wall Primer B28W200.
 - b. First and Second Coats: Interior Latex Eggshell.
 - 1. Devoe: Manor Hall Latex Eggshell
 - 2. Glidden: Dulux 1402 Latex Eggshell
 - 3. Moore: 274 Interior Latex Eggshell
 - 4. P & L: Pro-Hide Gold Latex Eggshell Z8200
 - 5. S-W: Pro Mar 200 Interior Latex Eg-Shel B20-2200 Series

- C. Woodwork and Hardboard:
 - 1. Semi-gloss Enamel Finish: Three coats.
 - a. Undercoat: Interior enamel undercoat.
 - 1. Devoe: 8801 Velour Alkyd Enamel Undercoat.
 - 2. Glidden: 310 Glidden Wood Undercoater.
 - 3. Moore: Moore's Alkyd Enamel Underbody #217.
 - 4. P & L: Interior Trim Primer.
 - 5. S-W: Prep Rite Wall and Wood Primer B49W2
 - b. First and Second Coats: Interior, Semi-gloss, odorless, alkyd enamel.
 - 1. Devoe: 26XX Velour Alkyd Semi-gloss Enamel.
 - 2. Glidden: 4200 Spred Ultra Semi-gloss Enamel.
 - 3. Moore: Moore's Satin Impervo Enamel. #235.
 - 4. P & L: Celu-Tone Alkyd Satin Enamel.
 - 5. S-W: Pro Mar 200 Alkyd Semi Gloss Enamel B34-200 Series.

- D. Stained Woodwork:
 - 1. Stained-Varnish Rubbed Finish: Three finish coats over stain plus filler on open-grain wood. Wipe filler before applying first varnish coat.
 - a. Stain Coat: Oil-type interior wood stain.
 - 1. Devoe: 96XX Wonder Woodstain Alkyd Stain.
 - 2. Glidden: 1600 Woodmaster Oil Stain.
 - 3. Moore: 241 Moore's Interior Wood Finishes Penetrating Stain.
 - 4. P & L: S-Series Tonetic Wood Stain.
 - 5. S-W: Wood Classics Interior Wood Stain A49 Series
 - b. First Coat: Varnish Sanding Sealer
 - 1. Devoe: 4900 Wonder Woodsealer Quick-Dry Sealer.
 - 2. Glidden: 5035 Ultra-Hide Sanding Sealer.
 - 3. Moore: 413 Moore's Interior Wood Finishes Quick-Dry Sanding Sealer.
 - 4. S-W: Wood Classics Fast Dry Varnish Sanding Sealer B26V43
 - c. Filler Coat: Paste wood filler.
 - 1. Devoe: 4800 Wonder Woodstain Interior Paste Wood Filler.
 - 2. Glidden: Glidden Paste Wood Filler.
 - 3. Moore: Benwood Past Wood Filler #238.
 - 4. S-W: Sher-Wood Fast-Dry Filler.

- d. Second and Third Coats: Oil rubbing varnish.
 - 1. Devoe: 4600 Wonder Wood Satin Alkyd Satin Varnish.
 - 2. Glidden: 82 Woodmaster Satin Sheen Urethane Varnish.
 - 3. Moore: Benwood Satin Finish Varnish #404.
 - 4. P & L: Clear Finish Gloss.
 - 5. S-W: Wood Classics Fast Dry Oil Varnish A66V391
- E. Ferrous Metal:
 - 1. Semi-gloss Enamel Finish: Two coats over primer with total dry film thickness not less than 2.5 mils.
 - a. Primer: Synthetic, quick-drying, rust-inhibiting primer.
 - 1. Devoe: 14920 Bar-Ox Quick Dry Metal Primer, Red.
 - 2. Glidden: 5210 Glid-Guard Universal Fast-Dry Metal Primer.
 - 3. Moore: IronClad Retardo Rust-Inhibitive Paint #163.
 - 4. P & L: Effecto Rust-inhibiting Primer.
 - 5. S-W: Kem Kromik Universal Metal Primer B50NZ6
 - b. First and Second Coats: Interior, Semi-gloss, odorless, alkyd enamel.
 - 1. Devoe: 26XX Velour Alkyd Semi-gloss Enamel.
 - 2. Glidden: 4200 Spred Ultra Semi-gloss Enamel.
 - 3. Moore: Moore's Satin Impervo Enamel. #235.
 - 4. P & L: Celu-Tone Alkyd Satin Enamel.
 - 5. S-W: Pro Mar 200 Alkyd Semi Gloss Enamel B34-200 Series.
- F. Zinc-Coated Metal:
 - 1. Semi-gloss Finish: Two coats over primer, with total dry film thickness not less than 2.5 mils.
 - a. Primer: Galvanized metal primer.
 - 1. Devoe: 13201 Mirrolac Galvanized Metal Primer.
 - 2. Glidden: 5229 Glid-Guard All-Purpose Metal Primer.
 - 3. Moore: IronClad Galvanized Metal Latex Primer #155.
 - 4. P & L: Interior Trim Primer.
 - 5. S-W: Galvite HS B50WZ30
 - b. First and Second Coats: Interior, Semi-gloss, odorless, alkyd enamel.
 - 1. Devoe: 26XX Velour Alkyd Semi-gloss Enamel.
 - 2. Glidden: 4200 Spred Ultra Semi-gloss Enamel.
 - 3. Moore: Moore's Satin Impervo Enamel. #235.
 - 4. P & L: Celu-Tone Alkyd Satin Enamel.
 - 5. S-W: Pro Mar 200 Alkyd Semi Gloss Enamel B34-200 Series.
- G. Wall Surfaces Under Vinyl Wall Covering: (If Applicable)
 - 1. S-W: Prep Rite PreWallcovering Primer B28W980
 - 2. P & L: Suprime Pre-Wallcovering Primer ZF1005
- H. Fire Retardant Finish: (If Applicable)
 - Primer: Interior Alkyd Primer
 - 1. S-W: Prep Rite Wall and Wood Primer B49W2
 - First Coat: Intumescent Latex Fire Retardant Finish.
 - 1. Flame Control 20-20
 - Finish Coat: Intumescent Latex Semi Gloss Overcoat
 - 1. Flame Control 40-40
- I. Insulated Coverings - Canvas and Cotton: (If Applicable)
 - First and Second Coats: Acrylic Gloss Coating.
 - 1. S-W: DTM Acrylic Gloss Coating B66 Series.

- J. Concrete Masonry Block Sealer:
 - 1. Product to be equal to PROSOCO Block-Guard & Graffiti Control.
 - 2. Product Description: Clear, solvent-based silicone elastomer formulated to weatherproof concrete block and other porous masonry materials.
 - 3. Application: Apply as per manufacturer's recommendations.
- K. Cast Stone Sealer:
 - 1. Product to be equal to PROSOCO Natural Stone Treatment.
 - 2. Application: Apply as per manufacturer's recommendations.
- L. New Brick Sealer:
 - 1. Prosoco: Siloxane PD Water Based Sealer.
 - 2. S-W : Loxon 7% Siloxane Water Repellant.
 - 2. Application: Apply as per manufacturer's recommendations.
- M. Natural Stone Sealer for Flooring and Walls: (If Applicable)
 - 1. Product to be equal to PROSOCO Natural Stone Treatment.
 - 3. Application: Apply as per manufacturer's recommendations.
- N. Gypsum Wall Board in Wet Conditions:
 - 1. Primer: White, latex-based, drywall primer
 - 2. S-W: Pro Mar 200 Interior Latex Wall Primer B28W200.
 - 3. First and Second Coats: Water Based Epoxy Semi Gloss
 - 4. SW: Waterbased Catalyzed Epoxy Semi Gloss B70-200 Series.
- O. Parking Strips:
 - 1. White
- P. Handicap Parking Striping:
 - 1. Handicap Blue
- Q. Handicap Ramp Scored Concrete Areas:
 - 1. (Color to be selected by Architect and Owner).

3.09 SCHEDULE - COLORS and FINISHES

- A. Color Selection: All Exterior and Interior color selections and paint finishes will be done by the Architect in coordination with the Interior Designer.
- B. Upon Selection of Colors: Architect and Interior Designer will provide Contractor with a schedule indicating colors and finishes to be applied to designated walls and surfaces.

END OF SECTION - 09900