SECTION  – interior painting

This Section has been amended to remove traditional interior latex paints and primers. Traditional interior latex paint and primers, together with requirements aligning with Gensler's GPS Standards related to interior latex paints, are specified in Section 09 91 23.16 – Interior Latex Painting.

Insert additional paint systems if required for substrates not listed, or alternate paint systems desired.

Coordinate this Section with mechanical, electrical, and plumbing Sections which may reference this Section for painting MEP pipes and conduits.

1. GENERAL
   1. summary
      1. Section includes surface preparation and field application of non-traditional epoxy based, dry fall type interior paint systems, wood knot sealers, and block fillers to exposed interior items and surfaces.
         1. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections.
      2. Related Section: Refer to Section 09 91 23.19 – Interior Latex Painting" for traditional latex interior paint systems.
      3. Paint exposed surfaces, except where these Specifications indicate that the surface or material is not to be painted. If an item or a surface is not specifically mentioned, paint the item, or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.
   2. DEFINITIONS

Definitions of gloss levels below are from American Coatings Association (formerly NPCA) for traditional terms, in parenthesis. The definitions of the traditional terms allow greater range of gloss. They are included because the design and construction industry continue to use this terminology. Where ACA does not provide terminology for gloss (Levels 2, 3, and 7) common manufacturers' terms are used. However, gloss levels marketed by paint manufacturers today are as varied as the paint colors they offer.

* + 1. General: The following terms apply to this Section. Gloss level shall be determined according to ASTM D 523.

Delete gloss ranges below not required for Project.

* + - 1. Gloss Level 1(Flat, or Matte): Not more than 5 units at 60 degrees and 10 units at 85 degrees.
      2. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees.
      3. Gloss Level 3 (Eggshell): 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees.
      4. Gloss Level 4 (Satin or Low Luster): 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees.
      5. Gloss Level 5 (Semigloss): 35 to 70 units at 60 degrees.
      6. Gloss Level 6 (Gloss): 70 to 85 units at 60-degrees.
      7. Gloss Level 7 (High Gloss): More than 85 units at 60 degrees.
  1. ACTION submittals

Consider deleting product data paragraph below if paint has been selected. Deleting the paragraph below will eliminate the need for CA Phase overhead of processing the product data.

* + 1. Product Data: For each type of product. Include preparation requirements and application instructions.

Retain the following paragraph for sustainability submittals related to green building certifications.

* + 1. Sustainable Design Submittals: Refer to Division 01 Section "Sustainable Design Requirements."

It is assumed that all paint colors, including gloss, will be selected and indicated in the Finish Schedule, or Section 09 06 00 "Schedule for Finishes."

* + 1. Samples for Verification: For each type of paint system and in each color and gloss of topcoat, with texture to simulate actual conditions.
       1. Provide stepped Samples, defining each separate coat, including primers. Use representative colors when preparing Samples for review. Resubmit until required gloss, color, and texture are achieved.
       2. Provide a list of materials and applications for each coat of each Sample. Label each Sample for location and application.
       3. Submit paint samples on actual substrate to be painted, 12 inches (305 mm) square of each color and texture required.
    2. 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.
  1. Informational Submittals

The paragraph below aligns with edits made in January of 2023 to Gensler’s master specifications for our GC3 initiative. This requires that contractors complete an EPD Reporting Form, referenced in 018133 "Sustainable Design Requirements - Embodied Carbon" disclosing (checking a box) if an EPD exists for the product, and to provide the EPD if available.

* + 1. Environmental Product Declaration (EPD) Disclosure Submittals: Completed Environmental Product Declaration Reporting Form in accordance with Section 01 81 33 "Sustainable Design Requirements - Embodied Carbon" for the following product types in this Section:
       1. CMU Block Filler.
       2. Wood-Knot Sealer.
       3. Primers:
          1. Alkali Resistant, Water Based.
          2. Latex, for Interior Wood.
          3. Bonding, Water Based.
          4. Acrylic.
       4. Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coatings, Gloss Levels 3 and 5.
       5. Semigloss Dry Fall Coating.
    2. VOC Content: Product data or laboratory reports showing compliance with VOC content limits.

Delete Article below for small Projects, temporary occupancies, and government-financed Projects.

* 1. MAINTENANCE MATERIAL SUBMITTALS
     1. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
        1. Paint: 1 gal. (3.8 L) of each material and color applied.
  2. QUALITY ASSURANCE
     1. Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
     2. Source Limitations: Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.

Delete sample installations below if not required. Deleting the paragraph below will eliminate the need for CA Phase overhead field observation of the sample installation.

* + 1. Sample Installation: Apply sample installation of each paint system indicated and each color and finish selected to demonstrate aesthetic effects and set quality standards for materials and execution.
       1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
          1. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft. (9 sq. m).
          2. Other Items: Architect will designate items or areas required.
       2. Approval of sample installations does not constitute approval of deviations from the Contract Documents contained in sample installations unless Architect specifically approves such deviations in writing.
       3. Subject to compliance with requirements, approved sample installations may become part of the completed Work if undisturbed at time of Substantial Completion.
  1. FIELD CONDITIONS
     1. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
     2. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

1. products
   1. maNUfacturers
      1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

Benjamin Moore manufacturing locations: Montreal, Canada; Milford, MA; Johnstown, NY; Newark, NJ; Pell City, AL; and Mesquite, TX.

PPG manufacturing locations: Batavia, IL; Carrollton, TX; Dover, DE; Oakwood, GA; Louisville, KY; Huron, OH; Houston, TX; East Point, GA; Reno, NV. Cambridge Ontario.

SW manufacturing locations: Beltsville, MD; Baltimore, MD; Greensboro, NC; Morrow, GA; Orlando, FL; Brantford, Canada; Fort Erie, Canada; Columbus, OH; Cincinnati, OH; Jeffersonville, IN; Chicago, IL; Andover, KS; Memphis, TN; Garland, TX; Fernley, NV; Victorville, CA.

* + - 1. Benjamin Moore Family of Products (Benjamin Moore, Coronado, Corotech, Insl-x, LenMar).
      2. PPG Paints (PPG).
      3. Sherwin-Williams Co. (SW).
  1. PAINT, GENERAL (PT##)
     1. Material Compatibility: Provide materials for use within each paint system 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. 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.
     2. VOC Content: Products shall comply with the more stringent VOC content limits of Federal, State, or local authorities having jurisdiction.

Retain subparagraph below for LEED and WELL certified projects.

* + - 1. **[LEED][WELL]**: For field applications that are inside the weatherproofing system, paints and coatings shall also comply with VOC content limits listed in Section 01 81 13 – Sustainable Design Requirements and with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers.
    1. 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.
       1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.
    2. Colors and Gloss: As indicated in **[Section 09 06 05 – Product and Finish Schedule] [Finish Schedule on Drawings.]** Reference to a particular manufacturer's number or color name is used only as a convenience for the Architect to establish the Project color and gloss requirements. These references are not intended to describe the required generic paint systems. For generic paint system requirements, refer to the "Interior Paint Schedule" at the end of Part 3, as applicable to the respective conditions of use.

The Gensler standard for material designations includes a requirement to use the prefix PT## for interior, exterior, and intumescent paints. Coordinate finish schedule with other specification Sections that include paints.

* + - 1. The selection of paint colors and gloss are indicated by manufacturer and color type; designated as "PT##."
      2. Furnish the same lots, batches, etc. within the same contiguous areas of the building (i.e., corridors on the same floors, common rooms which adjoin each other, etc.).
  1. preparatory coats
     1. Concrete Unit Masonry Block Filler:
        1. Benjamin Moore; Coronado Super Kote 5000 Latex Block Filler (958-11).
        2. PPG; Speedhide Interior/Exterior Masonry Latex Block Filler (6-7).
        3. SW; PrepRite Block Filler Interior/Exterior Latex (B25W25).

Retain the following paragraph for wood panels.

* + 1. Wood-Knot Sealer: Sealer recommended in writing by topcoat manufacturer for use in paint systems indicated.

Retain the following paragraph for gypsum board walls and ceilings, rubber base, and insulation-covering substrates with waterborne acrylic epoxy paints.

* + 1. Primer Sealer, Latex, Interior: Refer to Section 09 91 23.16 "Interior Latex Painting."

Retain the following paragraph for concrete walls, and plaster walls and ceilings with waterborne acrylic epoxy paints.

* + 1. Primer, Alkali Resistant, Water Based:
       1. Benjamin Moore; Super Spec Masonry Int/Ext Acrylic High Build Primer (N068).
       2. PPG; Perma-Crete Interior/Exterior Alkali-Resistant Primer (4-603).

Retain the following paragraph for wood substrates with latex paints.

* + 1. Primer, Latex, for Interior Wood:
       1. Benjamin Moore; Ultra Spec 500 Interior Latex Primer (N534).
       2. PPG; SEAL GRIP Interior Primer/Finish (17-951).
       3. SW; Premium Wall & Wood Interior Latex Primer (B28W08111).

Retain the following paragraph for rubber base with waterborne acrylic epoxy paint.

* + 1. Primer, Bonding, Water Based:
       1. Benjamin Moore; Insl-x Stix Bonding Primer (SXA-110).
       2. PPG; SEAL GRIP Interior/Exterior Acrylic Universal Primer/Sealer (17-921).
       3. SW; Adhesion Primer Interior/Exterior Latex (B51W8050).

Retain the following paragraph for steel, galvanized steel, aluminum, anodized aluminum, powder-coated aluminum substrates with light industrial coating and waterborne acrylic epoxy paint; and for wood with waterborne acrylic epoxy paint.

* + 1. Primer, Acrylic:
       1. Benjamin Moore; Super Spec HP Acrylic Metal Primer (P04).
       2. SW; Pro Industrial Pro-Cryl Universal Primer (B66-310 Series).
    2. Where manufacturer does not recommend a separate primer formulation on substrate indicated, use paint specified for finish coat.
  1. WATER BASED FINISH COATS

Edit this Article after editing "Interior Paint Schedule" at the end of Part 3. Delete systems not required.

Retain finish-coat materials below for a flat acrylic finish over interior concrete, stucco, masonry, concrete masonry units, mineral-fiber-reinforced cement panels, gypsum board, plaster, acoustic plaster, and ferrous and zinc-coated metal.

* + 1. Latex, Interior, Gloss Level 1 (Flat): Refer to Section 09 91 23.16 "Interior Latex Painting."

Retain finish-coat materials below for a low-luster acrylic finish over interior concrete, stucco, masonry, concrete masonry units, gypsum board, plaster, wood, hardboard, and ferrous and zinc-coated metal.

* + 1. Latex, Interior, Gloss Level 3 (Eggshell). Refer to Section 09 91 23.16 "Interior Latex Painting."

Retain finish-coat materials below for a semigloss acrylic finish over interior concrete, stucco, masonry, concrete masonry units, gypsum board, plaster, wood, hardboard, and ferrous and zinc-coated metal.

* + 1. Latex, Interior, Gloss Level 5 (Semigloss): Refer to Section 09 91 23.16 "Interior Latex Painting."

The following two paragraphs specify high-performance, interior epoxy systems suitable for high-traffic and high contact areas, such as public corridors and railings.

* + 1. Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coatings, Gloss Level 3 (Eggshell):

The following Corotech product lists a VOC content of <100 g/L which does not comply with current SCAQMD of 50 g/L for non-flat coatings. It is LEED compliant. For SCAQMD Area, Benjamin Moore; Eco Spec WB Eggshell (374) with 0 VOC is recommended.

* + - 1. Benjamin Moore; Corotech PreCatalyzed Waterborne Epoxy Eggshell V342.
      2. PPG; Pitt-Glaze WB1 Interior Eggshell Pre-Catalyzed Water-Borne Acrylic Epoxy (16-310).
      3. SW; Pro Industrial Pre-Catalyzed Waterbased Epoxy Eg-Shel (K45W1150 Series).
    1. Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coatings, Gloss Level 5 (Semigloss):

The following Corotech product lists a VOC content of <100 g/L which does not comply with current SCAQMD of 50 g/L for non-flat coatings. It is LEED compliant. For SCAQMD Area, Benjamin Moore; Eco Spec WB SG (376) with 0 VOC is recommended.

* + - 1. Benjamin Moore; Corotech PreCatalyzed Waterborne Epoxy SG (V341).
      2. PPG; Pitt-Glaze WB1 Interior Semi-Gloss Pre-Catalyzed Water-Borne Acrylic Epoxy (16-510).
      3. SW; Pro Industrial Pre-Catalyzed Waterbased Epoxy Semi-Gloss (K46W1150 Series).
  1. DRY FALL COATINGS

Dry fall coatings are typically applied to overhead exposed structure and metal ducts. The overspray dries before reaching the floor, and is swept up as part of cleaning. This product is one example; semi-gloss and eggshell finish dry fall coatings are available.

* + 1. Flat Dry Fall Coating:
       1. Benjamin Moore; Latex Dry Fall Flat 395, flat-gloss finish; applied at a dry film thickness of not less than 1.4 mils (36 microns). (formula does not exceed 43 grams/liter VOCs).
       2. Subject to requirements, provide the scheduled product, or a similar product, acceptable to the Architect, by one of the following:
          1. Pittsburgh Paints.
          2. Sherwin-Williams.
  1. EPOXY ENAMEL FLOOR PAINT
     1. Epoxy Enamel Floor Paint:
        1. Benjamin Moore; Corotech 100% Solids Epoxy Floor Coating V430 with Corothane Anti-Slip Aggregate V630.
        2. PPG Paints; PPG Aquapon WB EP.
        3. Sherwin-Williams: Resuprime 3830 first coat followed with Resuflor 3746 with H & C Sharkgrip slip resistant additive.

1. execution
   1. examination
      1. Examine substrates, areas, and conditions, with Applicator present, for compliance with manufacturer's requirements for paint application. Comply with procedures specified in PCA P4.
         1. Proceed with paint application only after unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
   2. preparation
      1. Remove hardware and hardware accessories, cover plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible, provide surface-applied protection before surface preparation and painting.
      2. Before applying paint or other surface treatments, clean substrates of substances that could impair bond of paints. Remove oil and grease before cleaning.
         1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
      3. Clean and prepare surfaces to be painted according to manufacturer's written instructions for each substrate condition and as specified. Provide barrier coats over incompatible primers or remove and reprime.

Delete subparagraphs below if surfaces are not to be painted or revise to suit Project.

* + - 1. Concrete Substrates: Remove release agents, curing compounds, hardeners, sealers, efflorescence, dust, dirt, grease, oils and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
         1. Use abrasive blast-cleaning methods if recommended by paint manufacturer.
      2. CMU Substrates: Remove efflorescence, dust, dirt, grease, oils and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application.
      3. Gypsum Wallboard: Repair all surfaces in gypsum wallboard with wallboard joint finishing compound or spackling compound, filled out flush and sanded smooth. Clean all surfaces and taped joints of dust, dirt and other contaminants and be sure they are thoroughly dry before applying paint.
      4. Plaster Substrates: Remove effloresce and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
      5. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances in accordance with SSPC SP 1 for Solvent Cleaning. After solvent cleaning prepare any bare metal surfaces by removing all stratified rust (rust scale), all loose mill scale, all loose or non-adherent rust and detrimental welding deposits by methods specified in SSPC SP-3 for "Power Tool Cleaning."
         1. Touch up bare areas, heads of bolts, welded surfaces which are unpainted, 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.
      6. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents in accordance with SSPC SP-1 for "Solvent Cleaning” and pretreat in accordance with the recommendations of SSPC Good Painting Practice, Vol. 1, Chapter 22.
      7. Aluminum Substrates: Remove loose surface oxidation.
      8. Anodized Aluminum Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates. Abrade surface to promote adhesion of subsequently applied paints.
      9. Powder-Coated Aluminum Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates. Abrade surface to promote adhesion of subsequently applied paints.

Delete subparagraph and associated subparagraphs below if wood surfaces are not to be painted or revise to suit Project.

* + - 1. 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.
         1. 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.
         2. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.
      2. Rubber: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates. Abrade surface to promote adhesion of subsequently applied paints, if necessary.
    1. Mix and prepare paint materials according to manufacturer's written instructions.
       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.
       3. Use only thinners approved by paint manufacturer and only within recommended limits.
    2. Tinting: Tint each undercoat a lighter shade to facilitate identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the topcoat but provide sufficient difference in shade of undercoats to distinguish each separate coat.
  1. application

Delete paragraph below if not required.

* + 1. Apply block fillers to CMU at a rate to ensure complete coverage with pores filled.
    2. Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.

Revise paragraphs below to suit Project. Add special restrictions on application methods if required.

* + - 1. Paint colors, surface treatments, and finishes are indicated in [Section 09 06 00 "Schedule of Finishes."] [Finish Schedule on Drawings.]
      2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
      3. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
      4. Provide finish coats that are compatible with primers used.
      5. The term "exposed surfaces" includes 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.
      6. 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.
      7. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
      8. Paint back sides of access panels and removable or hinged covers to match exposed surfaces. Access panels, electrical panels, air diffusing outlets, supply and exhaust grilles, louvers, exposed conduit, primed hardware items, primed outlet covers, primed wall and ceiling plates and other items in painted areas shall be painted to match the areas in which they occur unless otherwise directed by the Architect.
    1. 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.

Insert restrictions or limits on using spray equipment if necessary to suit Project.

* + - 1. The number of coats and film thickness required are the same regardless of application method. Do not apply succeeding coats until previous coat has cured as recommended by manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
         1. 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.
         2. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
         3. 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. Give special attention to ensure that edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
      2. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm and does not deform or feel sticky under moderate thumb pressure, and until application of another coat of paint does not cause undercoat to lift or lose adhesion.

Revise first paragraph and subparagraphs below if the use of spray equipment for paint application is limited or restricted. Some owners prohibit or restrict the use of spray on their projects. Spray application of paints can damage sensitive electronic operating equipment and might cause problems for personnel in occupied buildings.

* + 1. Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
       1. Brushes: Use brushes best suited for type of material applied. Use brush of appropriate size for surface or item being painted.
       2. Rollers: Use rollers of carpet, velvet-back, or high-pile sheep's wool as recommended by manufacturer for material and texture required.
       3. Spray Equipment: Use airless spray equipment with orifice size as recommended by manufacturer for material and texture required.
    2. 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.
    3. Apply paint materials no thinner than manufacturer's recommended spreading rate to achieve dry film thickness indicated. Provide total dry film thickness of the entire system as recommended by manufacturer.

First paragraph below is an example of painting requirements for mechanical and electrical work. Revise to suit Project.

* + 1. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to items exposed in equipment rooms and occupied spaces.
       1. Mechanical items to be painted include, but are not limited to, the following:

List below contains mechanical items that are usually field painted. Add other items to suit Project.

* + - * 1. Uninsulated metal piping.
        2. Uninsulated plastic piping.
        3. Pipe hangers and supports.
        4. Tanks that do not have factory-applied final finishes.
        5. Visible portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets.
        6. Mechanical equipment that is indicated to have a factory-primed finish for field painting.
      1. Electrical items to be painted include, but are not limited to, the following:

List below contains electrical items that are usually field painted. Add other items to suit Project.

* + - * 1. Conduits and fittings.
        2. Switchgear.
        3. Panelboards.
        4. Electrical equipment that is indicated to have a factory-primed finish for field painting.
    1. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.
    2. 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.
    3. 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.
    4. 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.
    5. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.
  1. MARKING AND IDENTIFICATION

Retain paragraph below for projects governed by the International Building Code. Refer to IBC for the code language. Refer to local Canadian codes for work in Canada.

* + 1. Mark fire-rated and smoke-rated partitions required to have protective openings or penetrations.
       1. Locate markings in accessible concealed floor, floor-ceiling, or attic spaces.
       2. Provide markings within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the partition.
       3. Marking shall include stenciled lettering not less than 3 inches (76 mm) in height with a minimum 3/8-inch (9.5 mm) stroke.
       4. Apply markings in a contrasting color with the suggested wording "FIRE AND/OR SMOKE BARRIER---PROTECT ALL OPENINGS", or other wording as approved by the Authority Having Jurisdiction.

Retain paragraph below for projects with sound-rated partitions. While not required by code, this measure may be desired by clients who are safeguarding protected or private conversations.

* + 1. Mark sound-rated partitions as follows:
       1. Locate markings in accessible concealed floor, floor-ceiling, or attic spaces.
       2. Provide markings within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the partition.
       3. Marking shall include stenciled lettering not less than 3 inches (76 mm) in height with a minimum 3/8-inch (9.5 mm) stroke.
       4. Apply markings in a contrasting color with the suggested wording "**[STC 45] [STC 50] [<insert STC rating>]** PARTITION---PROTECT ALL OPENINGS", or other wording as approved by the Owner.
  1. cleaning
     1. At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from Project site.
     2. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.
     3. After completing painting operations in each space or area, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection, if any.
  2. protection
     1. Protect work of other trades, whether being painted or not, against damage from paint application. Correct damage to work of other trades by cleaning, repairing or replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
     2. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PCA P1.
  3. INTERIOR PAINTING SCHEDULE

Use schedule below as a guide only. Below includes examples of paint systems for different interior substrates. Retain only substrates and paint systems suitable for Project.

Note that this section primarily covers epoxy coatings and specialty primers. Some applications may require traditional latex paint and primer coatings which are specified in Section 09 91 23.16 “Interior Latex Painting.”

* + 1. Concrete and Masonry (Other Than Concrete Unit Masonry): Provide the following paint systems over interior concrete and brick masonry substrates:
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Alkali resistant, water based.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Alkali resistant, water based.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).
       3. Epoxy Floor Paint Finish: Two coats.
          1. Finish Coats: Interior, epoxy floor paint. Immediately after the placement of the second coat, cast slip resistant sand grit into the epoxy floor paint to provide a coefficient of friction of not less than 0.42.
    2. Concrete Unit Masonry: Provide the following finish systems over interior concrete masonry:
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a block filler **[; only where indicated]**.
          1. Block Filler: Concrete unit masonry block filler.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a block filler **[; typical finish]**.
          1. Block Filler: Concrete unit masonry block filler.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).
    3. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:

Select and edit the options below to suit the project requirements.

* + - 1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical for walls, ceilings, and soffit surfaces] [; at surfaces exposed to view, unless otherwise indicated].**
         1. Primer: Sealer, latex, interior.
         2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
         3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
      2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
         1. Primer: Sealer, latex, interior.
         2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
         3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).
    1. Plaster: Provide the following finish systems over new interior plaster surfaces:

Paint systems below assume new construction. All manufacturers recommend allowing new plaster to cure for at least 30 days before coating. Consult manufacturers for system recommendations if plaster will cure substantially longer or for previously coated plaster.

* + - 1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical for walls, ceilings, and soffit surfaces] [; at surfaces exposed to view, unless otherwise indicated**].
         1. Primer: Alkali resistant, water based.
         2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
         3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
      2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
         1. Primer: Alkali resistant, water based.
         2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
         3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).

Retain the following paragraph for wood doors and wood base.

Delete option if hardboard is not used. (Hardboard is high-density fiberboard (HDF) more commonly known by the trade name "masonite.")

* + 1. Wood **[ and Hardboard]** Substrates: Provide the following paint finish systems over new interior wood surfaces:
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).
    2. Steel Substrates: Provide the following finish systems over interior steel (ferrous metal substrates:
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).

Retain paragraph below when dry fall paint is required to coat exposed structure, ductwork, and other fixed overhead elements. Indicate extent of dry fall coatings on drawings.

* + - 1. Flat Dry Fall Coating:
         1. Primer: Interior flat dry fall coating.
         2. Intermediate Coat: Interior flat dry fall coating.
         3. Finish Coat: Interior flat dry fall coating.

Retain the following paragraph for steel substrates factory-primed with universal primer, including steel (hollow metal) doors and frames, steel railings, stair stringers and risers. Coordinate with other Sections where products are specified.

Surface preparation and priming described in Division 05 must be suitable - commonly SSPC-SP 6 and a corrosion-resistant primer that is part of the following system. The best way to assure that steel arrives at the jobsite properly blasted and coated is for the Owner to hire an inspector to be present at the fabricating shop during prep and priming or check the condition of the steel when it arrives on site and reject it before it is unloaded if it does not comply with requirements.

* + 1. Steel (Factory-Primed) Substrates: Provide the following for steel substrates factory-primed with universal primer, including steel (hollow metal) doors and frames, steel railings, stair stringers and risers:
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Acrylic (applied over factory primer).
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Acrylic (applied over factory primer).
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).

Retain the following paragraph for galvanized steel, including galvanized steel (hollow metal) doors and frames, and galvanized steel pipes.

* + 1. Galvanized Metal Substrates: Provide the following for galvanized steel, including galvanized steel (hollow metal) doors and frames, and galvanized steel pipes.
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).

Retain the following paragraph for unfinished aluminum, including aluminum frames.

* + 1. Aluminum Substrates: Provide the following finish to unfinished aluminum surfaces.
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).

Retain the following paragraph for anodized aluminum, including aluminum frames.

* + 1. Aluminum (Anodized) Substrates: Provide the following finish to existing anodized aluminum surfaces and aluminum frames where indicated.
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).

Retain the following paragraph for painting over powder-coated aluminum, including aluminum frames.

* + 1. Aluminum (Powder-Coated) Substrates: Provide the following finish to existing powder coated aluminum surfaces and aluminum frames where indicated.
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Acrylic.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).

Retain the following paragraph for painting over rubber base.

* + 1. Rubber: Provide the following finish systems over interior rubber base surfaces:
       1. Eggshell Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; typical finish]**.
          1. Primer: Primer, Bonding, Water Based.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 3).
       2. Semigloss Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating Finish: Two coats over a primer **[; only where indicated]**.
          1. Primer: Primer, Bonding, Water Based.
          2. Intermediate Coat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5); matching topcoat.
          3. Topcoat: Waterborne Acrylic Epoxies, Interior, Industrial Maintenance Coating (Gloss Level 5).

end of section