# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 and 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

A. Section includes surface preparation and the application of paint systems on the following exterior substrates:
   1. Concrete.
   2. Steel.
   3. Galvanized metal.
   4. Aluminum (not anodized or otherwise coated).
   5. Stainless-steel flashing.
   6. Wood.
   7. Exterior portland cement plaster (stucco).
   8. Exposed exterior items and surfaces.

B. Related Requirements:
   1. Section 051200 "Structural Steel Framing" for shop priming of metal substrates with primers specified in this Section.
   2. Section 099123 "Interior Painting" for surface preparation and the application of paint systems on interior substrates.
   3. Section 099600 "High-Performance Coatings" for special-use coatings.

## 1.3 DEFINITIONS

A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.

B. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.

C. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.

D. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.

E. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.

F. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

## 1.4 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

B. Samples for Initial Selection: For each type of topcoat product.
   1. When custom colors are indicated or selected, Architect will furnish color chips for surfaces to be coated in custom colors. Architect reserves the right to make or adjust final color selections based on field-applied samples.

C. Samples for Verification: For each type of paint system and each color and gloss of topcoat.
   1. Submit Samples on rigid backing, 8 inches square.
   2. Step coats on Samples to show each coat required for system.
   3. Label each coat of each Sample.
   4. Label each Sample for location and application area.

D. Product List: For each product indicated, include the following:
   1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
   2. VOC content.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. 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: 5 percent, but not less than 1 gal of each material and color applied.

1.6 QUALITY ASSURANCE

A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and 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.
      a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.
      b. Other Items: Architect will designate items or areas required.
   2. Final approval of color selections will be based on mockups.
      a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
   3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
   4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).
   1. Maintain containers in clean condition, free of foreign materials and residue.
   2. Remove rags and waste from storage areas daily.

1.8 FIELD CONDITIONS

A. 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).

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

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Vista Paint. (Vista)
   2. Dunn-Edwards Corporation. (DE)
   3. Benjamin Moore & Co. (B-M)
   4. Or equal.

B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in other Part 2 articles for the paint category indicated.

2.2 PAINT, GENERAL

A. Material Compatibility:
   1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
   2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. VOC Content: Products shall comply with the strictest VOC limits as set by the authorities having jurisdiction, the ARB Architectural Coatings, suggested Control Measure and current local Air Quality Management District requirements.

C. Colors: Match Architect's samples.
   1. 20 percent of surface area will be painted with deep tones.

D. Material Quality: Provide manufacturer's first line, premium grade, architectural, best-quality paint material of the various coating types specified. Paint products described as commercial or professional will not be considered. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

2.3 SOURCE QUALITY CONTROL

A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
   1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
   2. Testing agency will perform tests for compliance with product requirements.
   3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

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

B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
   1. Concrete: 12 percent.
   2. Masonry (Clay and CMU): 12 percent.
   3. Wood: 15 percent.
   4. Portland Cement Plaster: 12 percent.
   5. Gypsum Board: 12 percent.

C. Portland Cement Plaster Substrates: Verify that plaster is fully cured.

D. Exterior Gypsum Board Substrates: Verify that finishing compound is sanded smooth.

E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

F. Proceed with coating application only after unsatisfactory conditions have been corrected.
   1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions applicable to substrates indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
   1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
   1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

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

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

~~F.~~ Steel Substrates: Remove rust, loose mill scale. Clean using methods recommended in writing by paint manufacturer.

G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

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

I. Aluminum Substrates: Remove loose surface oxidation.

J. Wood Substrates:
1. Scrape and clean knots. Before applying primer, apply coat of knot sealer recommended in writing by topcoat manufacturer for exterior use in paint system indicated.
2. Sand surfaces that will be exposed to view, and dust off.
3. Prime edges, ends, faces, undersides, and backsides of wood.
4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

K. Plastic Trim Fabrication Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions.
1. Use applicators and techniques suited for paint and substrate indicated.
2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
3. Paint both sides, **top and bottom,** and edges of exterior doors and entire exposed surface of exterior door frames.
4. Paint entire exposed surface of window frames and sashes.
5. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
6. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
7. The term "exposed surfaces" includes areas visible from any angle, elevation, or view point when permanent or built-in fixtures, convector covers, covers for finned-tube radiation, grilles, registers, and similar components are in place. Extend coatings in these areas, as required, to maintain the system integrity, aesthetic effect, and provide desired protection.
8. Paint surfaces behind movable panels and equipment the same as similar exposed surfaces. Before the final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
9. Paint interior surfaces of ducts, plenums, and chases with a flat, nonspecular black paint where visible through registers, grilles, or other openings.
10. Paint back sides of access panels and removable or hinged covers to match exposed surfaces.
11. Except where another finish other than paint has been specified, paint all grilles, registers, trim, and reveals in the color or colors selected by the Architect.
12. Sand lightly between each succeeding enamel or varnish coat.
13. After application of first coats and prior to application of finish coat or coats, fill all voids, gaps, and spaces between painted surfaces and other permanent building

components such as gaps at wall to baseboard, wall to door and window frame, and wall to ceiling system.

a. Use only calking, joint sealers, and putties designed for the specific application, compatible with substrates and paint; and apply in accordance with manufacturer's recommendations for the application condition.

B. Tint undercoats same color as topcoat, but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.

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

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

E. Paint all exposed surfaces, except where the paint schedules indicate that a surface or material is not to be painted or is to remain natural. If the paint schedules do not specifically mention an item or a surface, paint the item or surface the same as similar adjacent materials or surfaces whether or not schedules indicate colors. If the schedules do not indicate color or finish, the Architect will select from standard colors and finishes available.

1. Painting includes field painting of exposed bare and covered pipes and ducts (including color coding), hangers, exposed steel and iron work, and primed metal surfaces of mechanical and electrical equipment.

F. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels, unless otherwise specifically indicated to be painted.

1. Prefinished items include the following factory-finished components:
   a. Elevator entrance doors and frames.
   b. Finished mechanical and electrical equipment.
   c. Light fixtures.
2. Concealed surfaces include walls or ceilings in the following generally inaccessible spaces:
   a. Foundation spaces.
   b. Utility tunnels.
   c. Pipe spaces.
   d. Duct shafts.
      1) Portions of duct shafts visible through grilles, registers, or other openings are considered an exposed surface and require painting.
3. Finished metal surfaces include the following:
   a. Anodized aluminum.
   b. Stainless steel.
   c. Chromium plate.
   d. Copper.
   e. Bronze and brass.
4. Operating parts include moving parts of operating equipment and 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 (UL), Factory Mutual (FM), or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

G. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
1. Paint the following work where exposed to view:
a. Equipment, including panelboards and switch gear.
b. Uninsulated metal piping.
c. Uninsulated plastic piping.
d. Pipe hangers and supports.
e. Metal conduit.
f. Plastic conduit.
g. Tanks that do not have factory-applied final finishes.

## 3.4 FIELD QUALITY CONTROL

A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
1. Contractor shall touch up and restore painted surfaces damaged by testing.
2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

## 3.5 CLEANING AND PROTECTION

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

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

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

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

## 3.6 EXTERIOR PAINTING SCHEDULE

A. Concrete, Stucco, and Masonry (Other than Concrete Masonry Units): Provide the following finish systems over exterior concrete, stucco, and brick masonry surfaces:
1. Flat Acrylic Finish: 2 finish coats over a primer.
a. Primer: Alkali-resistant, exterior, 100% Acrylic primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils.
1) Vista: 4600 Uniprime II Acrylic Masonry Sealer
2) DE EFF-STOP Premium Primer/Sealer (ESPR00)
3) B-M: 023 Fresh Start Masonry Primer

b. First and Second Coats: Flat, exterior, 100 percent acrylic latex paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 3.0 mils.
   1) Vista: 2000 Duratone 100% Acrylic
   2) DE: EVERSHIELD Exterior Flat Paint (EVSH10)
   3) B-M: N105 Moorelife 100% Acrylic

2. Low-Luster Acrylic Finish: 2 finish coats over a primer.
   a. Primer: Alkali-resistant, exterior, 100% Acrylic primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than [1.5 mils (0.038 mm)].
      1) Vista: 4600 Uniprime II Acrylic Masonry Sealer
      2) DE: EFF-STOP Premium Primer/Sealer (ESPR00)
      3) B-M: W068 Masonry Primer
   b. First and Second Coats: Low-luster (eggshell or satin), exterior, acrylic-latex paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 3.0 mils.
      1) Vista: 8300 Carefree Eggshell100% Acrylic
      2) DE: EVERSHIELD Exterior Eggshell paint (EVSH30)
      3) B-M: N103 MooreGard 100% Acrylic Low Luster
3. Semigloss, Acrylic-Enamel Finish: 2 finish coats over a primer.
   a. Primer: Alkali-resistant, exterior, acrylic-latex primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than [1.5 mils (0.038 mm)].
      1) Vista: 4600 Uniprime II Acrylic Masonry Sealer
      2) DE: EFF-STOP Premium Primer/Sealer (ESPR00)
      3) B-M: W068 Masonry Primer
   b. First and Second Coats: Semi-gloss, exterior, 100% Acrylic enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than [2.8 mils (0.071 mm)].
      1) Vista: 8400 Carefree 100% Acylic Semi Gloss
      2) DE: EVSH50 Evershield Semi Gloss
      3) B-M: N096 MoorGlo 100% Acrylic Semi Gloss

B. Zinc-Coated Metal: Provide the following finish systems over exterior zinc-coated (galvanized) metal surfaces:
   1. Flat, 100% Acrylic-Enamel Finish: 2 finish coats over a rust-inhibitive primer.
      a. Primer: Rust-inhibitive metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils.
         1) Vista: 4800 Metal Pro Primer
         2) DE: GAPR00 Galv-Alum Primer
         3) B-M: M04 Acrylic Metal Primer
      b. First and Second Coats: Flat, exterior, 100% Acrylic Flat applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 3.4 mils.
         1) Vista: 2000 Duratone 100% Acrylic Flat
         2) DE: EVSH10 Evershield Flat
         3) B-M: N105 Moorelife 100% Acrylic Flat
   2. Low-Luster Acrylic Finish: 2 finish coats over a rust-inhibitive primer.
      a. Primer: Rust-inhibitive metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils.
         1) Vista: 4800 Metal Pro Primer

2) DE: GAPR00 Galv-Alum Prime
3) B-M: P04 Acrylic Metal Primer

b. First and Second Coat: Low-sheen (eggshell or satin), exterior, acrylic-latex paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).
1) Vista: 8300 Carefree Eggshell 100% Acrylic
2) DE: EVERSHIELD Exterior Eggshell paint (EVSH30)
3) B-M: N103 MooreGard 100% Acrylic Low Luster

3. Semigloss, Acrylic-Enamel Finish: 2 finish coats over a rust-inhibitive primer.
a. Primer: Rust-inhibitive metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils.
1) Vista: 4800 Metal Pro Primer
2) DE BLOC-RUST Rust Preventative Metal Primer (BRPR00-1)
3) B-M: P04 Acrylic Metal Primer

b. First and Second Coats: Semi-gloss, exterior, acrylic-latex enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils.
1) Vista: 8400 Carefree 100% Acylic Semi Gloss
2) DE EVERSHIELD, Exterior Semi-Gloss Paint (EVSH50)
3) B-M: N096 Moorglo 100% Acrylic Semi Gloss

C. Aluminum: Provide the following finish systems over exterior aluminum surfaces:
1. Flat, 100% Acrylic-Enamel Finish: 2 finish coats over a rust-inhibitive primer.
a. Primer: Rust-inhibitive metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils.
1) Vista: 4800 Metal Pro Primer
2) DE GAPR00 Galv-Alum Primer
3) B-M: P04 Acrylic Metal Primer

b. First and Second Coats: Flat, exterior, 100% Acrylic Flat applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 3.4 mils.
1) Vista: 2000 Duratone 100% Acrylic Flat
2) DE EVSH10 Evershield Flat
3) B-M: N105 Moorelife 100% Acrylic Flat

2. Low-Luster Acrylic Finish: 2 finish coats over a rust-inhibitive primer.
a. Primer: Rust-inhibitive metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils.
1) Vista: 4800 Metal Pro Primer
2) DE GAPR00 Galv-Alum Primer
3) B-M: M04 Acrylic Metal Primer

b. First and Second Coat: Low-sheen (eggshell or satin), exterior, acrylic-latex paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).
1) Vista: 8300 Carefree Eggshell 100% Acrylic
2) DE EVERSHIELD Exterior Eggshell paint (EVSH30)
3) B-M: N103 MoorGard 100% Acrylic Low Luster

3. Semigloss, Acrylic-Enamel Finish: 2 finish coats over a rust-inhibitive primer.
a. Primer: Rust-inhibitive metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils.

1) Vista: 4800 Metal Pro Primer
2) DE GAPR00 Galv-Alum Primer
3) B-M: M04 Acrylic Metal Primer

b. First and Second Coats: Semi-gloss, exterior, acrylic-latex enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils.
1) Vista: 8400 Carefree 100% Acylic Semi Gloss
2) DE: EVSH50 Evershield Semi Gloss
3) B-M: N096 MoorGlo 100% Acrylic Semi Gloss

END OF SECTION