SECTION 09 91 13 EXTERIOR PAINTING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Exterior paint and coating systems

1.2 RELATED SECTIONS

A. See related sections of the specifications for surface preparation, primers, and finishes provided by others.

1.3 REFERENCES

- A. ASTM D16 Standard Terminology for Paint, Related Coating, Materials, and Applications
- B. ASTM D3359 Standard Test Methods for Measuring Adhesion by Tape Test
- C. ASTM D4442– Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood Base Materials
- D. EPA Method 24 Surface Coatings
- E. GS-11 Green Seal Standard for Paints and Coatings
- F. LEED for Schools 2009 latest edition by USGBC
- G. NACE International (National Association of Corrosion Engineers) Industrial Maintenance Painting
- H. NPCA (National Paint and Coatings Association) Guide to U.S. Government Paint Specifications
- I. Paint Certified Product List Florida Department of Agriculture and Consumer Services
- J. PDCA (Painting and Decorating Contractors of America) Architectural Painting Specifications Manual
- K. PDCA Standard P1-04 Touchup Painting and Damage Repair; Financial Responsibility
- L. PDCA Standard P5-04 Benchmark Sample Procedures for Paint and other Decorative Coating System
- M. South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coating
- N. SSPC (Steel Structures Painting Council) Steel Structures Painting Manual
- O. SSPC-SP 1 Solvent Cleaning

1.4 DEFINITIONS

A. Conform to ASTM D16 for interpretation of terms used in this section.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Provide the manufacturer's data sheets and Safety Data Sheets on each paint and coating product and at a minimum shall include:
 - 1. Product characteristics
 - 2. Surface preparation instructions and recommendations
 - 3. Primer requirements and finish specifications
 - 4. Storage and handling requirements
 - 5. Application methods
 - 6. Cautions and VOC levels
- C. Selection Samples:
 - 1. Submit a complete set of color chips representing the full range of manufacturer's color samples available.
 - 2. Submit two 9" x 9" samples illustrating selected colors and textures for each type.

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1.6 QUALITY ASSURANCE

- A. Pre-Application meeting:
 - 1. Prior to contractor starting to apply any material covered in this section, there shall be a meeting with the Owner (FS and PM), Architect, Contractor, Subcontractor, and Material Supplier.
 - 2. Meeting shall discuss mockups, surface condition, surface preparation, material application, and inspection procedures.
 - a. Prepare all mockups in accordance with PDCA P5-04.
- B. The Contractor shall request the following in progress field inspections and the Owner's representative shall approve each inspection prior to proceeding with the next step.
 - 1. Following surface preparation and prior to priming
 - 2. Following priming and prior to applying finish coats
 - 3. Following application of finish coats
 - 4. All inspections shall follow FS normal procedure for verifying surface conditions and materials applied.

1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum 5-years documented experience.
- B. Applicator: Company specializing in performing the work of this section with minimum 5-years documented experience.

1.8 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame and smoke rating requirements for finishes.
- B. Comply with applicable environmental health and safety regulations

1.9 FIELD SAMPLES

- A. Provide exterior field sample at an outside corner condition with finish extending minimum 10' both directions and selected height.
- B. Locate where directed by Architect and Owner.
- C. Accepted sample may remain as part of the work.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01 60 00, follow manufacturer's requirements.
- B. Deliver products to site in manufacturer's unopened containers with the following labeling and information:
 - 1. Product name and type (description)
 - 2. Application & use instructions
 - 3. Surface preparation instructions
 - 4. VOC content
 - 5. Environmental issues; i.e. cleanup requirements, disposal requirements, etc
 - 6. Batch date
 - 7. Color number and name

C. Storage:

- 1. Store paint materials in a properly ventilated area at the temperature range r required by the manufacturer'.
- 2. Store and dispose of solvent-based materials and materials used with solvent-based materials in accordance with manufacturer's and other regulating authorities having jurisdiction.

1.11 PROJECT CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are below 40°F, or below the manufacturer's requirements.
- B. Do no exterior work on unprotected surfaces if it is raining or moisture from any source is present or expected before finishes can dry or attain proper cure.
 - 1. Allow surfaces to dry and attain required temperatures and conditions before proceeding or continuing previously started work.
- C. Follow manufacturer's directions for extremes and dew point requirements.
 - 1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results.
 - 2. Do not apply coatings under environmental conditions outside manufacturer's absolute limits.
- D. Provide lighting level of 80 foot-candles measured mid-height at substrate surface.
- E. Dispose of waste in accordance with applicable regulations.
- F. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work in accordance with paint manufacturer's written requirements. Beginning new work upon the existing substrate will be understood to indicate that the Contractor has accepted the existing conditions as compliant with the manufacturer's requirements.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers
 - 1. The painting schedule is based on products manufactured by the Sherwin-Williams Company.
 - 2. The owner's representative will consider equal products by other manufacturers for approval in accordance with paragraph 1.4.
- B. Paints
 - 1. Benjamin Moore & Co.
 - 2. PPG Paints, Inc.
 - 3. Sherwin-Williams Company.
 - 4. STO Corp
 - 5. Tex-cote
- C. Owner will consider requests for substitutions in accordance with provisions of the specifications.
 - 1. When submitting a request for substitution, provide complete product data specified above under paragraph 1.4 for each substitute product.

2.2 EXTERIOR PAINTING SCHEDULE

- A. Concrete (Cementitious Siding, Flexboard, Transite Board, Shingles (Non-roof), Tilt-Up, and Cast-In Place)
 - 1. Flat Sheen:
 - a. Benjamin Moore & Co.
 - 1) Primer: Benjamin Moore Acrylic Masonry Sealer 608
 - 2) First and Second Coats: Ultra Spec Exterior Flat N447
 - b. PPG Paints
 - 1) Primer: Perma-Crete Alkali Resistant Primer, 4-603XI

- 2) First and Second Coats: Sun Proof Exterior House & Trim Flat Latex, 72-45 Series
- c. Sherwin-Williams Company (The)
 - 1) Primer: Loxon Concrete & Masonry Primer, LX02W0050
 - 2) First and Second Coats: Superpaint Latex Flat, A80 Series
- d. STO Corp
 - 1) Primer: Sto Prime or Sto Hot Prime
 - 2) First and second coats: StoColor Acryl Flat
- 2. Flat Sheen (Hi-Build Acrylic):
 - a. Benjamin Moore & Co.
 - 1) Primer: Ultra Spec Masonry Interior/Exterior High Build Block Filler 571
 - 2) First and Second Coats: Coronado Texcrete 3194
 - b. PPG Paints
 - 1) Primer: Perma-Crete Alkali Resistant Primer, 4-603XI
 - 2) First and Second Coats: Perma-Crete Hi-Build Flat, 4-22XI Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: Loxon Concrete & Masonry Primer, LX02W0050
 - 2) First and Second Coats: Loxon XP Latex Flat
 - d. STO Corp
 - 1) Primer: Sto Prime or Sto Hot Prime
 - 2) First and second coats: StoColor Lotusan
- 3. Satin Sheen (Hi-Build Acrylic):
 - a. PPG Paints
 - 1) Primer: Perma-Crete Alkali Resistant Primer, 4-603XI
 - 2) First and Second Coats: Perma-Crete Hi-Build Satin, 4-422 Series
 - b. STO Corp
 - 1) Sto Prime of Sto Hot Prime
 - 2) First and second coats: StoColor Acryl Plus
- 4. Satin Sheen:
 - Benjamin Moore & Co.
 - 1) Primer: Benjamin Moore Acrylic Masonry Sealer 608
 - 2) First and Second Coats: Ultra Spec Exterior Satin N448
 - b. PPG Paints
 - 1) Primer: Perma-Crete Alkali Resistant Primer, 4-603XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Satin, 76-45 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: Loxon Concrete & Masonry Primer, LX02W0050
 - 2) First and Second Coats: Superpaint Latex Satin, A89 Series
 - d. STO Corp
 - 1) Primer: Sto Prime or Sto Hot Prime
 - 2) First and second coats: StoCoat Color
- 5. Semi-Gloss Sheen:
 - a. Benjamin Moore & Co.
 - 1) Primer: Benjamin Moore Acrylic Masonry Sealer 608
 - 2) First and Second Coats: Ultra Spec Exterior N449

- b. PPG Paints
 - 1) Primer: Perma-Crete Alkali Resistant Primer 4-603XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Semi-Gloss, 78-45 Series
- c. Sherwin-Williams Company (The)
 - 1) Primer: Loxon Concrete & Masonry Primer, LX02W0050
 - First and Second Coats: Pro Industrial Multi-surface Acrylic Semi-Gloss, B66
 Series
- 6. Gloss Sheen:
 - a. Benjamin Moore & Co.
 - 1) Primer: Benjamin Moore Acrylic Masonry Sealer 608
 - 2) First and Second Coats: Ultra Spec Exterior Gloss N449
 - b. PPG Paints
 - 1) Primer: Perma-Crete Alkali Resistant Primer 4-603XI
 - 2) First and Second Coats: MANOR HALL® Interior/Exterior Latex Gloss, 52-110 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: Loxon Concrete & Masonry Primer, LX02W0050
 - 2) First and Second Coats: Superpaint Exterior Latex Gloss, A84 Series
- 7. Clear Water Repellant
 - a. Benjamin Moore & Co.
 - 1) Texcrete 194 Silicone Water Repellant
 - b. PPG Paints
 - 1) First and Second Coats: PERMA-CRETE® Aqua-Pel™ Clear Siloxane 4-6100
 - c. Sherwin-Williams Company (The)
 - 1) First and Second Coats: S-W Loxon Siloxane Water Repellant, CF31T0007
 - d. Tex-Cote
 - 1) First and Second Coats: Rainstopper, 1750W Clear
- 8. Texture Coating System Contractor shall have option approved by Architect:
 - a. Benjamin Moore & Co.
 - 1) Texcrete Waterborne Acrylic Masonry Waterproofer 3196
 - b. PPG Paints Spray-on 100% Acrylic Textured Masonry Coating
 - 1) Primer: Perma-Crete Alkali Resistant Primer 4-603XI
 - 2) Finish Coat: PERMA-CRETE® 100% Acrylic Texture Coatings, 4-50, 4-60, 4-70 Series
 - c. Sherwin-Williams Company (The)- Spray-on Solvent Borne Textured Coating
 - 1) Primer: UltraCrete Solvent Borne Smooth, CF18 Series
 - 2) Finish Coat: UltraCrete Solvent Borne Textured, CF18 Series
 - Minimum total dry film thickness of 10-16 mils for waterproofing system,
 Texture and color as selected by Architect
 - d. Sherwin-Williams Company (The)- Spray-on 100% Acrylic Textured Masonry Coating
 - 1) Primer: Loxon® Block Surfacer, LX01 Series
 - 2) Finish Coat: UltraCrete Textured Masonry Topcoat, CF17 Series
 - Minimum total dry film thickness of 10-16 mils for waterproofing system,
 Texture and color as selected by Architect
 - e. Tex Cote By Textured Coating of America, inc

- 1) Primer: TexCote concrete masonry primer, water-based
- 2) Finish Coat: TexCote XL70W textured coating color and texture, dry film thickness 16 mils or for harder wearing coating; TexCote TuffGuard 99, or for extended warranty, two coats FadeBlock supercote heat reflecting color fast top coat
- 9. Alternate Tilt-Up Precast and Cast in Place Concrete
 - a. Sto Acrylic-based coating
 - 1) Primer: Stocoat, 80805 Sto Hot Primer (4-6 mil wet. 2 mil dry)
 - 2) First Coat: Stocoat, 80659 Texture Medium (5-7 mil wet, 3 mil dry)
 - 3) Second Coat: Stocoat: 216 Lotusan (6 mil wet, 3 mil dry)
- B. Masonry (.CMU, Split-Face, Scored, Smooth, High-Density, Low- Density, Fluted)
 - 1. Satin Sheen
 - a. Benjamin Moore & Co.
 - 1) Primer: Ultra Spec Masonry Interior/Exterior High-Build Block Filler 571
 - 2) First and Second Coats: Ultra Spec Exterior Satin N448
 - b. PPG Paints
 - 1) Primer: Speedhide Int/Ext Masonry Hi Fill Latex Block Filler 6-15XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Satin, 76-45 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: PrepRite® Block Filler, B25W25
 - 2) First and Second Coats: Superpaint Exterior Latex Satin, A89 Series
 - d. STO Corp
 - 1) Primer: StoPrime Block Surfacer HP
 - 2) First and second coats: StoColor Acryl Plus
 - 2. Semi-Gloss Sheen
 - a. Benjamin Moore & Co.
 - 1) Primer: Ultra Spec Masonry Interior/Exterior High-Build Block Filler 571
 - 2) First and Second Coats: Ultra Spec Exterior N449
 - b. PPG Paints
 - 1) Primer: Speedhide Int/Ext Masonry Hi Fill Latex Block Filler 6-15XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Semi-Gloss, 78-45 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: PrepRite Blocker Filler, B25W25
 - 2) First and Second Coat: Pro Industrial Multi-surface Acrylic Semi-Gloss, B66 Series
 - 3. Gloss Sheen
 - b. Benjamin Moore & Co.
 - L) Primer: Ultra Spec Masonry Interior/Exterior High-Build Block Filler 571
 - 2) First and Second Coats: Ultra Spec Exterior Gloss N449
 - b. PPG Paints
 - 1) Primer: Speedhide Int/Ext Masonry Hi Fill Latex Block Filler 6-15XI
 - 2) First and Second Coats: MANOR HALL® Interior/Exterior Latex Gloss, 52-110 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: PrepRite Blocker Filler, B25W25
 - 2) First and Second Coats: Superpaint Exterior Latex Gloss, A84 Series

- 4. Clear Water Repellant
 - a. PPG Paints
 - 1) Texcrete Silicone Water Repellant 194
 - b. Sherwin-Williams Company (The)
 - 1) First and Second Coats: S-W Loxon Siloxane Water Repellent, CF31T0007
 - c. Tex-Cote
 - 1) First and Second Coats: Rainstopper, 1750W Clear
- 5. Texture Coating System Contractor shall have option approved by Architect:
 - a. PPG Paints Spray-on 100% Acrylic Textured Masonry Coating
 - 1) Primer: Perma-Crete Alkali Resistant Primer 4-603XI
 - 2) Finish Coat: PERMA-CRETE® 100% Acrylic Texture Coatings, 4-50, 4-60, 4-70 Series
 - b. Sherwin-Williams Company (The)- Spray-on Solvent Borne Textured Coating
 - 1) Primer: UltraCrete Solvent Borne Smooth, CF18 Series
 - 2) Finish Coat: UltraCrete Solvent Borne Textured, CF18 Series
 - 3) Minimum total dry film thickness of 10-16 mils for waterproofing system, Texture and color as selected by Architect
 - c. Sherwin-Williams Company (The)- Spray-on 100% Acrylic Textured Masonry Coating
 - 1) Primer: Loxon® Block Surfacer, LX01w0200 Series
 - 2) Finish Coat: UltraCrete Textured Masonry Topcoat, CF17 Series
 - 3) Minimum total dry film thickness of 10-16 mils for waterproofing system, Texture and color as selected by Architect
 - d. Tex Cote By Textured Coating of America, inc
 - 1) Primer: TEX·COTE® COOLWALL® Smooth Classic Primer or TEX·COTE® COOLWALL® Textured Primer
 - 2) Finish Coat: TEX-COTE® COOLWALL
- B. Metal (Aluminum, Galvanized)
 - 1. Semi-Gloss Finish
 - a. Benjamin Moore & Co.
 - 1) Primer (Unpainted Surfaces): Corotech Acrylic Metal Primer V110
 - 2) First and Second Coats: Ultra Spec HP DTM Acrylic Enamel HP29
 - b. PPG Paints
 - 1) Primer (Unpainted Surfaces): Pitt-Tech Plus Int/Ext DTM Industrial Primer, 4020 Series
 - 2) First and Second Coats: Pitt Tech Plus 4216 HP Semi-Gloss DTM Enamel, 4216 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: Pro Industrial Pro-Cryl[®] Universal Primer, B66-310 Series
 - 2) First and Second Coats: Pro Industrial Semi-Gloss Acrylic B66W651 Series.
 - 2. Gloss Finish
 - a. Benjamin Moore & Co.
 - 1) Primer (Unpainted Surfaces): Corotech Acrylic Metal Primer V110
 - 2) First and Second Coats: Ultra Spec HP DTM Acrylic Enamel HP28
 - b. PPG Paints

- 1) Primer (Unpainted Surfaces): Pitt-Tech Plus Int/Ext DTM Industrial Primer, 4020 Series
- 2) First and Second Coats: Pitt Tech Plus Gloss DTM Enamel, 90-1310 Series
- c. Sherwin-Williams Company (The)
 - 1) Primer: Pro Industrial Pro-Cryl® Universal Primer, B66-1310 Series
 - 2) First and Second Coats: Pro Industrial Gloss Acrylic B66W611 Series.
- C. METAL (Misc Iron, Ornamental Iron, Structural Iron, Ferrous Metal)
 - 1. Semi-Gloss Finish
 - a. Benjamin Moore & Co.
 - 1) Primer (Unpainted Surfaces): Corotech Acrylic Metal Primer V110
 - 2) First and Second Coats: Ultra Spec HP DTM Acrylic Enamel HP29
 - b. PPG Paints
 - 1) Primer (Unpainted Surfaces): Pitt-Tech Plus Int/Ext DTM Industrial Primer, 4020 Series
 - 2) First and Second Coats: Pitt Tech Plus 4216 HP Semi-Gloss DTM Enamel, 4216 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: Pro Industrial Pro-Cryl® Universal Primer, B66-1310 Series
 - 1) First and Second Coats: Pro Industrial Semi-Gloss Acrylic B66W651 Series.
 - 2. Gloss Finish
 - a. Benjamin Moore & Co.
 - 1) Primer (Unpainted Surfaces): Corotech Acrylic Metal Primer V110
 - 2) First and Second Coats: Ultra Spec HP DTM Acrylic Enamel HP28
 - b. PPG Paints
 - 1) Primer (Unpainted Surfaces): Pitt-Tech Plus Int/Ext DTM Industrial Primer, 4020 Series
 - 2) First and Second Coats: Pitt Tech Plus Gloss DTM Enamel, 90-1310 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: Pro Industrial Pro-Cryl® Universal Primer, B66-1310 Series
 - 2) First and Second Coats: Pro Industrial Gloss Acrylic B66W611 Series.
- D. Wood (Siding, Trim, Shutters, Hardboard-Bare/Primed)
 - 1. Semi-Gloss Finish
 - a. Benjamin Moore & Co.
 - 1) Primer: Agua Lock Plus 100% Acrylic Primer Sealer AQ-0400
 - First and Second Coats: Ultra Spec Exterior N449
 - a. PPG Paints
 - 1) Primer: PPG Paints: SEAL GRIP Interior/Exterior 100% Acrylic Universal Primer/Sealer 17-921XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Semi-Gloss, 78-45 Series
 - b. Sherwin-Williams Company (The)
 - 1) Primer: A-100 Exterior Latex Wood Primer, B42W8041 Series
 - First and Second Coats: Pro Industrial Multi-surface Acrylic Semi-Gloss, B66
 Series
 - 2. Gloss Finish
 - b. Benjamin Moore & Co.

- 1) Primer: Aqua Lock Plus 100% Acrylic Primer Sealer AQ-0400
- 2) First and Second Coats: Ultra Spec Exterior Gloss N449
- a. PPG Paints
 - 1) Primer: PPG Paints: SEAL GRIP Interior/Exterior 100% Acrylic Universal Primer/Sealer, 17-921XI
 - 2) First and Second Coats: MANOR HALL® Interior/Exterior Latex Gloss, 52-110 Series
- b. Sherwin-Williams Company (The)
 - 1) Primer: A-100 Exterior Latex Wood Primer, B42W8041 Series
 - 2) First and Second Coats: Superpaint Exterior Latex Gloss, A84 Series
- E. Architectural PVC, Plastic, Fiberglass
 - 1. Semi-Gloss Finish
 - c. Benjamin Moore & Co.
 - 1) Primer: Stix Waterborne Bonding Primer SXA-110
 - 2) First and Second Coats: Ultra Spec Exterior N449
 - a. PPG Paints
 - 1) Primer: PPG Paints: SEAL GRIP Interior/Exterior 100% Acrylic Universal Primer/Sealer, 17-921XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Semi-Gloss, 78-45 Series
 - b. Sherwin-Williams Company (The)
 - 1) Primer: PreRite ProBlock Latex Primer, B51 Series
 - 2) First and Second Coats: Pro Industrial Multi-surface Acrylic Semi-Gloss, B66 Series
 - 2. Gloss Finish
 - d. Benjamin Moore & Co.
 - 1) Primer: Stix Waterborne Bonding Primer SXA-110
 - 2) First and Second Coats: Ultra Spec Exterior Gloss N449
 - a. PPG Paints
 - 1) Primer: PPG Paints: SEAL GRIP Interior/Exterior 100% Acrylic Universal Primer/Sealer, 17-921XI
 - 2) First and Second Coats: MANOR HALL® Interior/Exterior Latex Gloss, 52-110 Series
 - b. Sherwin-Williams Company (The)
 - 1) Primer: PrepRite ProBlock Latex Primer, B51 Series
 - 2) First and Second Coats: Superpaint Exterior Latex Gloss, A84 Series
- F. Drywall (Gypsum Board, Exterior Drywall)
 - 1. Semi-Gloss Finish
 - a. Benjamin Moore & Co.
 - 1) Primer: Ultra Spec Masonry Int/Ext Acrylic High Build Masonry Primer 609
 - 2) First and Second Coats: Ultra Spec Exterior N449
 - b. PPG Paints
 - 1) Primer: Perma-Crete Alkali Resistant Primer, 4-603XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Semi-Gloss, 78-45 Series
 - c. Sherwin-Williams Company (The)

- 1) Primer: A-100 Exterior Latex Wood Primer, B42W8041 Series
- First and Second Coats: Pro Industrial Multi-surface Acrylic Semi-Gloss, B66
 Series
- 2. Gloss Finish
 - a. Benjamin Moore & Co.
 - 1) Primer: Ultra Spec Masonry Int/Ext Acrylic High Build Masonry Primer 609
 - 2) First and Second Coats: Ultra Spec Exterior Gloss N449
 - b. PPG Paints
 - 1) Primer: Perma-Crete Alkali Resistant Primer, 4-603XI
 - 2) First and Second Coats: MANOR HALL® Interior/Exterior Latex Gloss, 52-110 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: A-100 Exterior Latex Wood Primer, B42W8041 Series
 - 2) First and Second Coats: Superpaint Exterior Latex Gloss, A84 Series
- G. Synthetic Stucco
 - 1. Flat Finish
 - a. Benjamin Moore & Co.
 - 1) Primer: Ultra Spec Masonry Int/Ext 100% Acrylic Sealer 608
 - 2) First and Second Coats: Ultra Spec Exterior Flat N447
 - b. PPG Paints
 - 1) Primer: PPG Paints: SEAL GRIP Interior/Exterior 100% Acrylic Universal Primer/Sealer, 17-921XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Flat Latex, 72-45 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: S-W Superpaint Exterior Latex Flat, A80 Series
 - 2) First and Second Coats: Superpaint Exterior Latex Flat, A80 Series
 - d. STO Corp
 - 1) Primer: STO Prime or STO Hot Primer
 - 2) First and second coats: StoColor Acryl Flat
 - 2. Semi-Gloss Finish
 - a. Benjamin Moore & Co.
 - 1) Primer: Ultra Spec Masonry Int/Ext 100% Acrylic Sealer 608
 - 2) First and Second Coats: Ultra Spec Exterior N449
 - b. PPG Paints
 - 1) Primer: PPG Paints: SEAL GRIP Interior/Exterior 100% Acrylic Universal Primer/Sealer, 17-921XI
 - 2) First and Second Coats: Sun Proof Exterior House & Trim Semi-Gloss, 78-45 Series
 - c. Sherwin-Williams Company (The)
 - 1) Primer: A-100 Exterior Latex Wood Primer, B42W8041 Series
 - 2) First and Second Coats: Pro Industrial Multi-surface Acrylic Semi-Gloss, B66 Series
 - d. STO Corp
 - 1) Primer: STO Prime or STO Hot Prime
 - 2) First and second coats: StoColor Acryl Plus
 - 3. Gloss Finish

- a. Benjamin Moore & Co.
 - 1) Primer: Ultra Spec Masonry Int/Ext 100% Acrylic Sealer 608
 - 2) First and Second Coats: Ultra Spec Exterior Gloss N449
- b. PPG Paints
 - 1) Primer: PPG Paints: SEAL GRIP Interior/Exterior 100% Acrylic Universal Primer/Sealer, 17-921XI
 - 2) First and Second Coats: MANOR HALL® Interior/Exterior Latex Gloss, 52-110 Series
- c. Sherwin-Williams Company (The)
 - 1) Primer: A-100 Exterior Latex Wood Primer, B42W8041 Series
 - 2) First and Second Coats: Superpaint Exterior Latex Gloss, A84 Series

2.3 MATERIALS – GENERAL REQUIREMENTS

- A. Paints and Coatings General
 - 1. Unless otherwise indicated, provide factory-mixed coatings.
 - 2. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application.
 - 3. Do not reduce, thin, or dilute coatings or add materials to coatings unless approved in manufacturer's product instructions.
 - 4. Confirm VOC's by using the products SDS sheets. Take appropriate precautions.

B. Primers

1. Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.

2.4 ACCESSORIES

- A. Coating application accessories:
 - 1. Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and cleanup materials required, per manufacturer's specifications.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions under provisions of Section 01 31 00.
- B. Do not begin application of coatings until substrates have been properly prepared; notify Owner's Representative of unsatisfactory conditions before proceeding.
- C. If substrate preparation is the responsibility of another installer, notify Owner's Representative of unsatisfactory preparation before proceeding.
- D. Proceed with work only after conditions are corrected and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.
- E. Test shop applied primer for compatibility with subsequent cover materials.
- F. Measure moisture content of surfaces using an electronic moisture meter, DO NOT apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Plaster and Gypsum Wallboard: 12%
 - 2. Masonry, Concrete, and Concrete Unit Masonry: 12%
 - 3. Interior Wood: 15%, measured in accordance with ASTM D2016
 - 4. Concrete Floors: 8%

3.2 SURFACE PREPARATION

- A. The surface shall be dry and in sound condition.
 - 1. Remove all oil, dust, dirt, loose rust, peeling paint, or other contamination to ensure good adhesion.

- B. Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- C. Correct defects and clean surfaces that affect work of this section.
 - 1. Remove existing coatings that exhibit loose surface defects.
- D. Seal with shellac any marks, which may bleed through surface finishes.
- E. Impervious Surfaces:
 - 1. Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach.
 - 2. Rinse with clean water and allow surface to dry.
- F. Aluminum Surfaces Scheduled for Paint Finish:
 - 1. Remove all oil, grease, dirt, oxide, and other foreign material by cleaning per SSPC-SP1 Solvent Cleaning.
- G. Block/Unit Masonry (Cinder and Concrete)
 - 1. Remove all loose mortar and foreign material.
 - 2. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement, and hardeners.
 - 3. Let concrete and mortar cure at least 30 days at 75°F unless the manufactures products are designed for application prior to the 30-day period.
 - 4. The pH of the surface and moisture content must be in accordance with the paint manufacturer's recommendations prior to painting.

H. Concrete:

- 1. Remove contamination by washing with an appropriate cleaner, rinse thoroughly.
- 2. The pH of the surface and moisture content shall be in accordance with the paint manufacturer's recommendations prior to painting.
- 3. Allow the surface to thoroughly dry.
- 4. Fill bug holes, air pockets, and other voids under another section with a cement-patching compound of sufficient cohesive strength to support the specified coating system.
- I. Stucco and Cement Composition Siding/Panels:
 - 1. Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly.
 - a. Allow the surface to dry thoroughly.
 - b. The pH of the surface and moisture content should be in accordance with the paint manufacturer's recommendations prior to painting.
- J. Copper Surfaces Scheduled for a Paint Finish:
 - 1. Remove contamination by steam, high-pressure water, or solvent washing.
 - 2. Apply vinyl etch primer immediately following cleaning.
- K. Copper Surfaces Scheduled for a Natural Oxidized Finish:
 - 1. Remove contamination by applying oxidizing solution of copper acetate and ammonium chloride in acetic acid.
 - 2. Rub on repeatedly for required effect.
 - 3. Once attained, rinse surfaces with clear water and allow to dry.
- L. Drywall Exterior:
 - 1. Shall be clean, dry and all dust removed prior to painting.
 - 2. All nail heads must be set and spackled.
 - 3. Tape all joints and cover with a joint compound.
 - 4. Spackled nail heads and tape joints shall be sanded smooth.
- M. Galvanized Metal Surfaces:

- 1. Clean per SSPC-SP1 using detergent and water or a degreasing cleaner to remove greases and oils.
- 2. Apply a test area, priming as required.
- 3. Allow the coating to cure in accordance with the manufacturer's recommendation before testing.
- 4. Perform adhesion tests in accordance with ASTM D3359 Adhesion by Tape Test.
- 5. If adhesion is poor, then notify Owner's representative that additional surface preparation under another section is necessary to remove pre-treatments or contaminants that interfere with adhesion of the coating.
- N. Insulated Coverings: Remove dirt, grease, and oil from canvas and cotton.
- O. Plaster Surfaces:
 - 1. Shall allow to thoroughly dry for at least 30 days before painting, unless the manufacturer's products are designed for application prior to the 30-day period.
 - a. Bare plaster must be cured and hard prior to painting.
 - b. Correct any soft, porous, or powdery plaster per requirements under another section of the specifications.
- P. Steel: Structural, Plate, etc:
 - 1. Check other sections for additional surface preparation and shop priming of bare steel surfaces.
 - 2. Surface preparation shall include appropriate SSPC recommended methods.
 - 3. Shop primer shall be compatible with the field-applied coatings.
 - 4. Surfaces shall be dry and clean prior to the application of field-applied coatings.
 - 5. Remove all contaminants in accordance with SSPC-SP1 Solvent Cleaning.
- Q. Wood:
 - 1. Shall be clean and dry, then prime and paint as soon as possible.
 - 2. Scrape, sand, and spot prime knots and pitch streaks before a full priming coat is applied.
 - 3. Patch all nail holes and imperfections with a wood filler or putty and sand smooth after application of primer.
- R. Wood and Metal Doors Scheduled for Painting: Seal top and bottom edges with primer.

3.3 APPLICATION/INSTALLATION

- A. Mix, thin, and apply all coatings and products in accordance with manufacturer's instructions.
- B. Do not apply coatings to wet or damp surfaces.
 - 1. Wait at least 30 days before applying to new concrete or masonry, or follow manufacturer's procedures to apply appropriate coatings prior to 30 days.
 - 2. Test new concrete for moisture content.
- C. Apply coatings using methods recommended by manufacturer.
- D. Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen to achieve a properly painted surface in accordance with PDCA Standard P1-04.
- E. Apply coatings at spreading rate required to achieve the manufacturer's recommended dry film thickness.
- F. The coated surface shall be inspected and accepted by the Owner's Representative.
- 3.4 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT
 - A. Refer to Division 21, 22, 23, 26, 27, & 28 for schedule of color-coding and identification banding of equipment, ductwork, piping, and conduit.
 - B. Paint shop primed equipment.

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- C. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- D. Prime and paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars, and supports, in finished areas, except where items are pre-finished.
- E. 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 visible surfaces.
 - 1. Paint dampers exposed behind louvers and grilles to match face panels.
- F. Paint exposed conduit and electrical equipment occurring in finished areas.
- G. Paint both sides and edges of plywood backboards for electrical and telephone equipment before installing equipment.
- H. Color code equipment, piping, conduit, and exposed ductwork in accordance with requirements indicated.
 - 1. Color band and identify with flow arrows, names, and numbering.
- I. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.5 TOUCH UP and DAMAGE REPAIR

- A. Contractor shall repair all deficiencies in coating application in accordance with PDCA Standard P1-04
- B. Inform Owner's representative of all damage to properly painted surfaces and receive authorization prior to performing damage repair.

END OF SECTION