

SECTION 09 91 00

PAINTING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY:

- A. The work includes, but is not necessarily limited to, furnishing of labor, materials and equipment for the preparation and painting and finishing of all exterior surfaces, including exposed and semi-exposed surfaces.
- B. The intent and requirements of this section is that all items and surfaces which are normally painted and finished on a building of this type and quality AND all items and surfaces listed in the bid documents, shall be so included in this contract, whether or not said work, item or surface is specifically called out and included in the schedules, or is, or is not, specifically mentioned in this section or on the drawings.
- C. Paint all exposed and semi-exposed surfaces, except where these specifications of drawings specifically indicate that the surface or material is not to be painted or is to remain natural. 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, District will select from standard colors and finishes available.
- D. Painting includes, but is not limited to: walls, soffits, exterior doors, door frames and trim, window frames and sash, roof fascia, all painted roof items, flashing and sheet metal including pre-finished items, exposed bare and covered pipes and ducts, gutters and downspouts, hangers, exposed steel and iron supports, any and all trim, and surfaces of mechanical and electrical equipment that do not have factory-applied final finish.
- E. The finish schedule indicates the general type of surfaces to be painted or finished. The schedule's indications are general and do not necessarily define the detail requirements. The detailed requirements are described elsewhere in this specification. Include all detailed requirements and further instructions as may be given for the required complete finishing of all the areas and spaces
- F. Thoroughly examine specifications, site of work and conditions under which work will be performed before submitting a proposal. Surfaces which cannot be prepared or painted as specified shall be immediately brought to the attention of the owner or owner's representative in writing.
 - 1. Starting of work without such notification will be considered acceptance by the Contractor of surfaces in an "as is" condition.

G. Do not paint concealed surfaces, finished metal surfaces if indicated, operating parts, and labels.

1. Items include the following factory-finished components:

Review list of prefinished items below. Delete items not in Project; insert additional items to suit Project.

- a. Acoustical wall panels.
 - b. Light fixtures.
2. Finished metal surfaces include the following:
 - a. Anodized aluminum.
 - b. Stainless steel.
 - c. Chromium plate.
 - d. Copper and copper alloys.
 - e. Bronze and brass.
3. 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 UL, FMG, or other code-required labels or equipment name, identification, performance rating, or nomenclature plates

1.03 DEFINITIONS:

A. General: Standard coating terms defined in ASTM D 16 apply to this Section

1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85-degree meter.
2. Eggshell refers to low-sheen finish with a gloss range between 20 and 35 when measured at a 60-degree meter.
3. Semi-gloss refers to medium-sheen finish with a gloss range between 35 and 70 when measured at a 60-degree meter.
4. Full gloss refers to high-sheen finish with a gloss range more than 70 when measured at a 60-degree meter.

1.04 SUBMITTALS:

- A. General: Submit each item in this Section according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Submit complete manufacturer's descriptive literature and specifications.
- C. Product Data: For each paint system indicated, including primers.

1. Materials List: An inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
2. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material.

D. Samples

1. Submit color samples, 8 ½" by 11 inches, of each color, gloss, texture and material.
2. Identify each sample as to finish, formula, color name and number, and sheen name.
3. Colors will be selected by the Owner/or Owner's agent prior to commencement of work.
4. After Owner/or Owner's agent approval, submit two record samples matching the approved samples in color and finish.
5. Manufacturer's Instructions: Submit the manufacturer's current recommended methods of installation, including relevant limitations, safety and environmental cautions, application rates and composition analysis.

1.05 QUALITY ASSURANCE:

- A. Applicator Qualifications: A firm or individual experienced in applying paints and coatings 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.
- C. Coordination of Work: Review other sections of these specifications in which prime paints are to be provided to ensure compatibility of total coating system for various substrates.

1.06 DELIVERY, STORAGE, AND HANDLING:

- A. Storage and Protection: Use all means necessary to protect the materials of this Section before, during, and after installation.
- B. Deliver materials to job site in new, original, and unopened containers bearing manufacturer's name and trade name. Store where directed in accordance with manufacturer's instructions.
- C. Store only acceptable project materials on site. See list of restricted materials below for materials not acceptable for on-site storage.
- D. Comply with health and fire regulations.
- E. Deliver materials to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
 1. Product name or title of material.
 2. Product description (generic classification or binder type).
 3. Manufacturer's stock number and date of manufacture.
 4. Contents by volume, for pigment and vehicle constituents.
 5. Thinning instructions.
 6. Application instructions.
 7. Color name and number.

8.VOC content.

- F. Store all materials not being used in tightly covered containers in well-ventilated areas at a minimum ambient temperature of 45 F. Maintain containers used in storage in a clean condition, free of foreign materials and residue.
- G. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.
- H. Added Stock: Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Containers shall be tightly sealed and clearly labeled for identification. Deliver extra materials to Owner.

1. Quantity: Each color applied shall be provided in one (1) gallon containers

a) Color 1	Classic French Gray SW 0077	1-gallon containers
b) Color 2	Lattice SW 7654	1-gallon containers
c) Color 3	Snowbound SW 7004	1-gallon containers
d) Color 4	Tricorn Black SW 6258	1-gallon containers
e) Color 5	School Accent Color	1-gallon containers

2. Obtain written verification of delivery from Owner.

- I. VOC Classification: Provide materials, including primers, undercoats, and finish-coat materials, that meet local air quality management district regulations.
- J.

1.07 PROJECT CONDITIONS:

- A. Do not apply exterior materials in weather conditions not allowed or not recommended by the coating manufacturer, for example during fog, rain or mist, or when inclement weather is expected within the dry time specified by the manufacturer. No exterior painting shall be done until the surfaces are thoroughly dry and cured. Do not apply paint when temperature is below 50⁰ F.

PART 2 - PRODUCTS

2.01 MANUFACTURERS:

- A. Manufacturer's catalog names and number of paint types in this Section herein are based on products manufactured or distributed by the Sherwin-Williams Corporation www.Sherwin-Williams.com and are the basis of design against which the Owner/or Owner's Agent will judge equivalency. In addition, the quantity of titanium dioxide, the use of clays, aluminum silicate, talc and the purity of acrylic materials are a few of the criteria which will be used by the Owner/or Owner's Agent in determining equivalency of materials.

- B. Substitutions: Requests for substitutions will be considered in accordance with the conditions of the Contract and Division 1 Specification Sections. When submitting request for substitution, provide complete product data specified above under Submittals, for each substitute product. Allow minimum 5 working days for review by Owner or Owner's agent unless more time is required under Section 01640.

2.02 MATERIALS:

- A. Paints: Provide ready-mixed, except field catalyzed coatings. Pigments shall be fully ground maintaining soft paste consistency, capable of being readily and uniformly dispersed to complete homogeneous mixture. Paints shall have good flowing and brushing properties and be capable of drying or curing free of streaks and sags.
- B. Accessory Materials: Linseed oil, shellac, solvents, and other materials not specified but required to achieve required finishes shall be of high quality and approved by manufacturer of the paint system.
- C. Colors shall be selected from color chip samples provided by manufacturer of paint system approved for use. Match approved samples for color, texture and coverage.
- D. Material Compatibility: Provide primers and finish-coat materials 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.
- E. 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.
- F. Sealants: Use sealants at all joints between dissimilar materials. All sealants shall be non-sag, non-staining, waterborne, UV stable, mildew-resistant, paintable, acceptable to the manufacturer of the other materials being used around or over it, and complying with ASTM C834. Use according to manufacturer's instructions and only in locations compatible and suitable for the product. See 07920 Joint Sealants section of specification.
- G. Fillers and Patches: Use SW WL7000GLSB Brush-Grade Concrete Masonry Patch for small cracks and splits on stucco. Use Minwax High Performance wood filer on small crack in wood.
- H. Federal Specifications establish minimum acceptable quality for paint materials. Provide written certification from paint manufacturer that materials provided meet or exceed these minimums.

- I. Lead content in pigment, if any, is limited to contain not more than 0.5% lead, as lead metal based on the total non-volatile (dry-film) of paint weight.

1. This limitation is extended to those exterior surfaces, such decks, porches, railings, and doors which are readily accessible to children under seven years of age.

- J. Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings)

F. Restricted Components: Paints and coatings shall not contain any of the following.

1. Acrolein.
2. Acrylonitrile.
3. Antimony.
4. Benzene.
5. Butyl benzyl phthalate.
6. Cadmium.
7. Di (2-ethylhexyl) phthalate.
8. Di-n-butyl phthalate.
9. Di-n-octyl phthalate.
10. 1,2-dichlorobenzene.
11. Diethyl phthalate.
12. Dimethyl phthalate.
13. Ethylbenzene.
14. Ethylene Glycol
15. Formaldehyde.
16. Hexavalent chromium.
17. Isophorone.
18. Lead.
19. Mercury.
20. Methyl ethyl ketone.
21. Methyl isobutyl ketone.
22. Methylene chloride.
23. Naphthalene.
24. Toluene (methylbenzene).
25. 1,1,1-trichloroethane.
26. Vinyl chloride.

2.03 MIXES:

- A. Mix, prepare, and store painting and finishing materials in accordance with manufacturer's directions.

PART 3-EXECUTION

3.01 EXAMINATION:

- A. Examine surfaces to be painted before beginning painting work. Work of other trades that has been left or installed in a condition not suitable to receive paint, stain other specified finish shall be repaired or corrected before painting. Painting of defective or unsuitable surface implies acceptance of the surfaces.
- B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers. Coordinate with Section 07920 Joint Sealants.
- C. Notify the Owner/or Owner's Agent about anticipated problems using the materials specified over substrates primed by others.

3.02 PROTECTION:

- A. Protect previously installed work and materials, which may be affected by Work of this Section.
 - 1. Protect prefinished surfaces, lawns, shrubbery and adjacent surfaces against paint and damage.
 - 2. Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or splatter from fouling surfaces not being painted.
 - 3. Protect surfaces, equipment, and fixtures from damage resulting from use of fixed, movable and hanging scaffolding, planking, and staging.
 - 4. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by the Owner.
 - 5. Protect surfaces that are not to be painted, or that have already been painted.
 - 6. Mask all light fixture, fire alarm devices, surface-mounted items and signage prior to painting and remove masking upon completion.
 - 7. Protect adjacent surfaces not to be painted, such as caulking, weather-stripping, non-paintable sealants, concealed surfaces, factory-finished surfaces, and others, from exposure to primers, strippers, solvents, coatings, paints and any substance that is detrimental to it.
- B. Provide wet paint signs, barricades, and other devices required to protect newly finished surfaces. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.

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

3.03 PREPARATION:

- A. General: Remove hardware and hardware accessories, signage, plates, machined surfaces, lighting fixtures, fire alarm devices, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting and application is thoroughly dry in each space or area, reinstall items removed using workers skilled in the trades involved.

- B. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. 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.
- C. Perform preparation and cleaning procedures in strict accordance with coating manufacturer's instructions for each substrate condition. Seal, fill and caulk holes, cracks too large for paint to bridge, and joints between materials.
- D. Power wash all areas to be painted except those that will absorb moisture, and use a mild detergent solution such as Great Lakes Laboratories Extra Muscle Cleaner if required. Then rinse with clear clean water until all residues have been removed from all surfaces. Allow the surfaces to thoroughly dry before proceeding with preparation or painting.
- C. Mildew shall be dealt with at this time by metering a mildewcide in the power wash **Or use a commercially available mildewcide, such as Mil-Kleen or Krud Kutter® House Wash. Rinse all surfaces with clear clean water to remove any remaining residue. Severe mildew may require additional treatment. Again allow the surfaces to thoroughly dry before proceeding with preparation or painting.**
- Caution:** Bleach may be harmful to eyes, clothing, and surrounding vegetation, so take all precautions to ensure safety. Chlorine bleach must never be mixed with ammonia or with any detergent or cleaners containing ammonia.

Activities containing bleach may not be used during school hours when students or teachers are on site.

- D. After washing the surfaces, the areas must be carefully examined for cracking, blistering, peeling or flaking of existing paint. All loose, unsound, or non-adhering paint must be removed.
- E. Concrete and Masonry: Power wash all areas to be painted. Surfaces shall be dry, clean, and free of dirt, efflorescence, encrustation, and other foreign matter. Glazed surfaces on concrete shall be roughened or etched to uniform texture. Moisture content for Masonry and Stucco must not exceed 17%.
- F. Stucco: Power wash all areas to be painted except those that will absorb moisture, and use a mild detergent solution such as Great Lakes Laboratories Extra Muscle surface prep if required. Then rinse with clear clean water until all residues have been removed from all surfaces. Allow the surfaces to thoroughly dry before proceeding with preparation or painting. Moisture content for stucco must not exceed 17%.
- G. Ferrous Metal: Clean ferrous metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with the Steel Structures Painting Council's (SSPC) recommendations. Apply primer. For ferrous metal that has been primed or coated previously, treat rusty or bare areas and shop-applied prime coats that have been damaged. Wire brush, clean with solvents recommended by paint manufacturer, and touch up with the same primer as the shop coat.

1. Clean oil, grease, and foreign matter with solvent. Wire brush, scrape, and sand or grind rusted surfaces to remove rust. Prime with rust-inhibiting primers within 3 hours after preparation

Odiferous coatings and noisy equipment may not be used during school hours when students or staff are on site.

- H. Non-Ferrous Metal: Chemically or solvent clean and then treat with an etching-type solution if recommended by the finish manufacturer. Cleaned and retreated Non-Ferrous Metal shall be primed the same day that cleaning has been performed.
- I. Metal Doors: Clean and prepare as for ferrous metals. Remove existing paint residue from pre-finished surfaces and door hardware.
- J. Bare and covered pipes, ducts, hangers, exposed steel and ironwork, and primed metal surfaces of equipment installed under mechanical and electrical work shall be cleaned prior to priming.
- K. Wood Surfaces: Remove dust, grit and foreign matter. Sand surfaces and dust clean. Spot coat knots, pitch streaks, and sappy section with pigmented stain sealer when surfaces are to be painted. Fill nail holes, cracks and other defects after priming and spot prime repairs when fully cured.
 - a. Scrape or wire brush, all loose and peeling paint and dust all surfaces before priming or applying finish coats. Feather sand all areas where paint has been removed.
 - b. Caulk tops and sides of all window trim and door trim with DEC920. Caulk all butt joints with DEC920. Caulk where all dissimilar surfaces meet with DEC920, in accordance to industry standards.
 - c. Wood surfaces shall be cleaned without saturating with moisture, using air blast, broom or light water with sponge or mop.
 - d. Wood surfaces shall not be power washed unless sufficient drying can be assured before application of coatings. Fans and heaters supplied by the contractor may be required if wet surfaces do not dry in time to be coated. If power washing is used, use a mild detergent solution such as MI-T-M's surface prep if required. Do not use a 0 blasting tip for cleaning any wood substrates. Then rinse with clear clean water until all residues have been removed from all surfaces. Allow the surfaces to thoroughly dry before proceeding with preparation or painting. Comply with manufacturer's recommendations for moisture content.
- N. Preparation of other surfaces shall be performed following specific recommendations of the coatings manufacturer.
- O. Bond breakers and curing agents shall be removed and the surface cleaned before primers, sealers or finish paints can be applied.
- P. Cleaning: Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings, including but not limited to tape, oil, grease,

finger prints, gum, dust, mold, mildew, food, paper, sealants, caulking, scuff marks, smears and all other undesirable substances.

- Q. Clean and paint so that dust, paint chips, dirty or contaminated liquids and other contaminants will not fall on wet, newly painted surfaces or on existing surfaces or landscaping.
- R. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified. Existing surfaces to be recoated shall be thoroughly cleaned and deglossed by sanding or other means prior to painting. Patched and bare areas shall be spot primed with same primer as specified for new work. Prime also as noted in Finish Schedule below
- S. Galvanized Surfaces: Solvent clean galvanized surfaces and pre-treat with GALVA-ETCH, Etching Liquid (GE 123) or wash clean with Krud-Kutter® Metal Clean and Etch (SSPC-SP-1) Cleaned and pretreated galvanized metal shall be primed the same day that cleaning has been performed.
- T. Caulk where all dissimilar surfaces meet with suitable sealants and caulks, paintable, such as Optima Premium Hybrid Sealant - Smooth, Gun Grade where surfaces are to be painted. Use according to manufacturer's standards and recommendations. See also Section 07920 Joint Sealants for caulking requirements.
- U. Materials Preparation: Mix and prepare paint materials according to manufacturer's written instructions. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue. 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
- V. Use only thinners approved by paint manufacturer and only within recommended limits.
- W. Glass and Fiberglass Surfaces: Verify whether the previously applied coatings are adhering well. If they are, it is acceptable to apply finish coatings directly over them. If they are not adhering well, remove all loose coating and prime.

3.04 APPLICATION:

- A. Apply painting and finishing materials in accordance with the manufacturer's written instructions.
 - 1. The number of coats specified is the minimum that shall be applied. Apply additional coats when undercoats, stains or other conditions show through final paint coat, until paint film is of uniform finish, color and appearance.
 - 2. Tint each undercoat with a slightly different value toward the final color, to assist with verification of full coverage.
- B. Protect surfaces that are not to be painted. See Paragraph 3.02
- C. Finish exterior doors on tops, bottoms, and edges same as exterior faces, after fitting. Do not finish interior faces, unless noted in drawings. Finish door frames to inside corner of stop. Protect weatherstripping from any exposure to primers, rust-inhibitors, paint or other coatings.

- D. Sand lightly and dust clean between succeeding coats.
- E. Fill holes and divots with fillers and patches so that surface and texture match appearance of adjacent materials. Continue score lines to match existing. Seal and caulk cracks as described in Section 07920.
- F. Use applicators and techniques best suited for substrate and type of material being applied.
- G. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
- H. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before the final installation of equipment, paint surfaces behind permanently fixed equipment or furniture.
- I. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
 - 1. The number of coats and the film thickness required are the same regardless of application method. Do not apply succeeding coats until the previous coat has dried as recommended by the manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
 - 2. 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 edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
 - 3. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.
 - 4. District or District's representative must approve all priming before first coat is applied.
 - 5. District or District's representative must approve applied first coat, before second coat is applied.
- J. Application Procedures: Apply paints and coatings by brush, roller, or spray, according to manufacturer's written instructions.
 - 1. Brushes: Use brushes best suited for the type of material applied. Use brush of appropriate size for the surface or item being painted.
 - 2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by the manufacturer for the material and texture required.

3. Spray Equipment: Use airless spray equipment with orifice size as recommended by the manufacturer for the material and texture required. Use extra care to prevent overspray onto cars, neighboring houses, and other items not intended to be painted.

Spray application is not allowed during school hours when students or teachers are on site.

- K. Minimum Coating Thickness: Apply paint materials no thinner than manufacturers recommended spreading rate. Provide the total dry film thickness of the entire system as recommended by the manufacturer. Apply each material at not less than the manufacturer's recommended spreading rate.
- L. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to items exposed in equipment rooms and occupied spaces.
- M. Mechanical items to be painted include, but are not limited to, the following:
 1. Uninsulated metal piping.
 2. Pipe hangers and supports.
 3. Tanks that do not have factory-applied final finishes.
 4. Visible portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets.
 5. Exposed ducts, equipment, and pipe insulation having "all-service jacket" or other paintable jacket material.
 6. Mechanical equipment that is indicated to have a factory-primed finish for field painting.
- N. Electrical items to be painted include, but are not limited to, the following:
 1. Exposed Conduits.
- O. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.
- P. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to all surfaces indicated in this section or in the Finish Schedule. 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.
- Q. Completed Work: Match approved samples for color, texture, and coverage. Provide clean, straight precise lines between colors and between painted and non-painted surfaces, even at substrates which are old, irregular, damaged or patched. Remove, refinish, or repaint work not complying with requirements

3.05 FIELD QUALITY CONTROL:

A. Owner reserves the right to invoke the following test procedure at any time and as often as Owner deems necessary during the period when paint is being applied:

1. Owner will engage a qualified independent testing agency to sample paint material being used. Samples of material delivered to Project will be taken, identified, sealed, and certified in the presence of Contractor.

2. Testing agency will perform appropriate tests for the following characteristics as required by Owner:

- a. Abrasion resistance.
- b. Apparent reflectivity.
- c. Flexibility.
- d. Washability.
- e. Absorption.
- f. Accelerated weathering.
- g. Dry opacity.
- h. Yellowness.
- i. Recoating.
- j. Skinning.
- k. Color retention.
- l. Alkali resistance.
- m. Quantitative material analysis.

2. Owner may direct Contractor to stop painting if test results show material being used does not comply with specified requirements. Contractor shall remove noncomplying paint from Project site, pay for testing, and repaint surfaces previously coated with the noncomplying paint. If necessary, Contractor may be required to remove noncomplying paint from previously painted surfaces if, on repainting with specified paint, the two coatings are incompatible

3.06 CLEANING, TOUCH-UP AND REFINISHING:

- A. Cleanup: At the end of each workday, all areas shall be left in a clean, orderly condition; remove empty cans, rags, rubbish, and other discarded paint materials from Project site.
- B. Carefully remove all spattering, spots and blemishes caused by work under this section from surfaces throughout the project.
- C. Upon completion of painting work remove all rubbish, paint cans, and accumulated materials resulting from work in each space or room. All areas shall be left in a clean, orderly condition.
- D. Runs, sags, misses, holidays, stains and other defects in the painted surfaces, including inadequate coverage and mil thickness shall be satisfactorily touched up, or refinished, or repainted as necessary. Owner or Owner's representative shall have the sole determination of satisfaction with the finished work.

3.07 WORKMANSHIP

- A. Erect all staging, scaffolding, and like items as required for the proper execution of the painting work, and remove when no longer required. Place scaffolding so as not to damage existing work or interfere with the work of others.
- B. Do not work outside areas designated by Owner. Provide secure bollards and caution tape at perimeter of work areas. OR Provide fencing at perimeter of work areas.

- C. Apply all material evenly and uniformly, without runs, brush marks, skips, streaks, or sags. Avoid lapping on glass, fixtures, hardware, or equipment.
- D. Before final acceptance, inspect all work and touch up all damaged work. Leave the work complete and in first-class condition prior to contacting the Owner for final Owner's inspection.
- E. Mix paint in accordance with the manufacturer's printed instructions.
- F. If the Owner/or Owner's Agent determines, solely at its discretion, that coverage is incomplete or not uniform, an additional coat shall be applied at no additional cost to the Owner.
- G. All work shall be performed by experienced skillful craftsmen to assure finished work of first class quality and durability.
- H. All work shall be done under favorable weather conditions or the work shall be suitably protected from the weather.

3.08 EXTERIOR PAINT SCHEDULE

- A. All products in this schedule are manufactured or distributed by **Sherwin Williams** Corporation or equal. Substitutions may be made in conformance with Section 01630, Product Options and Substitutions.
- B. Apply the following finishes to the surfaces specified on the finish schedule. Apply all materials in accordance with manufacturer's instructions on properly prepared surfaces and foundation coats. Tint each undercoat with a slightly different value toward the final color, to assist with verification of full coverage.
- C. Provide paint finishes of even uniform color, free from cloudy or mottled appearance. Properly correct all non-complying work to the satisfaction of owner or owner's representative and the representative of the paint manufacturer.
- D. Paint Application Finish Schedule (consult with Owner before bid if any materials are missing from this schedule).

Concrete, Stucco, and Masonry (Other Than Concrete Unit Masonry): Provide the following finish systems over exterior concrete, stucco, and brick masonry substrates:

1. Flat Acrylic Finish: Two finish coats over a primer. (Total dry film thickness not less than 2.6 mils.)
 - a. Primer: Exterior concrete and masonry primer.
 - 1) S-W Loxon Concrete & Masonry Primer Sealer, LX02W50, at 8.0 mils wet, 3.2 mils dry
 - b. Finish Coats: Exterior flat acrylic paint.
 - 2) S-W A-100 Exterior Latex Flat, A6 Series, at 4.0 mils wet, 1.3 mils dry, per coat
2. Low-Luster Acrylic Finish: Two finish coats over a primer. (Total dry film thickness not less than 2.8 mils.)
 - a. Primer: Exterior concrete and masonry primer.

- 1) S-W Loxon Concrete & Masonry Primer Sealer, LX02W50, at 8.0 mils wet, 3.2 mils dry
 - b. Finish Coats: Exterior low sheen acrylic paint.
 - 2) S-W A-100 Exterior Latex low sheen, A12 Series, at 4.0 mils wet, 1.4 mils dry, per coat
3. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer. (Total dry film thickness not less than 3.0 mils.)
- a. Primer: Exterior concrete and masonry primer.
 - 1) S-W Loxon Concrete & Masonry Primer Sealer, LX02W50, at 8.0 mils wet, 3.2 mils dry
 - b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) S-W Solo Semi-gloss 100 % Acrylic Int/Ext, A76 Series, at 4.0 mils wet, 1.5 mils dry, per coat.

Concrete Unit Masonry: Provide the following finish systems over exterior concrete unit masonry:

- 1. Flat Acrylic Finish: Two finish coats over a block filler. (Total dry film thickness not less than 2.6 mils.)
 - a. Block Filler: Concrete unit masonry block filler.
 - 1) S-W PrepRite Block Filler, B25W25, at 16 mils wet, 7.7 mils dry
 - b. Finish Coats: Exterior flat acrylic paint.
 - 2) S-W A-100 Exterior Latex Flat, A6 Series, at 4.0 mils wet, 1.3 mils dry, per coat
- 2. Low-Luster Acrylic Finish: Two finish coats over a block filler. (Total dry film thickness not less than 2.8 mils.)
 - a. Block Filler: Concrete unit masonry block filler.
 - 1) S-W PrepRite Block Filler, B25W25, at 16 mils wet, 7.7 mils dry
 - b. Finish Coats: Exterior low sheen acrylic paint.
 - 2) S-W A-100 Exterior Latex low sheen, A12 Series, at 4.0 mils wet, 1.4 mils dry, per coat
- 3. Semigloss Acrylic-Enamel Finish: Two finish coats over a block filler. (Total dry film thickness not less than 3.0 mils.)
 - a. Block Filler: Concrete unit masonry block filler.
 - 1) S-W PrepRite Block Filler, B25W25, at 16 mils wet, 7.7 mils dry
 - b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) S-W Solo Semi-gloss 100 % Acrylic Int/Ext, A76 Series, at 4.0 mils wet, 1.5 mils dry, per coat

Mineral-Fiber-Reinforced Cement Panels: Provide the following finish systems over exterior, mineral-fiber-reinforced cement panels:

- 1. Flat Acrylic Finish: Two finish coats over a primer.
 - a. Primer: Exterior concrete and masonry primer.
 - 1) S-W Loxon Concrete & Masonry Primer Sealer, LX02W50, at 8.0 mils wet, 3.2 mils dry
 - b. Finish Coats: Exterior flat acrylic paint.

- 2) S-W A-100 Exterior Latex Flat, A6 Series, at 4.0 mils wet, 1.3 mils dry, per coat

Exterior Gypsum Soffit Board: Provide the following finish systems over exterior gypsum soffit board:

1. Flat Acrylic Finish: Two finish coats over an exterior alkyd- or alkali-resistant primer.
 - a. Primer: Exterior gypsum soffit board primer.
 - 1) S-W Problock Latex Int/ Ext Primer-Sealer, B58W620, at 4mils wet, 1.4mils dry
 - b. Finish Coats: Exterior flat acrylic paint.
 - 2) S-W A-100 Exterior Latex Flat, A6 Series, at 4.0 mils wet, 1.3 mils dry, per coat
2. Low-Luster Acrylic Finish: Two finish coats over a primer.
 - a. Primer: Exterior gypsum soffit board primer.
 - 1) S-W Problock Latex Int/ Ext Primer-Sealer, B58W620, at 4mils wet, 1.4mils dry
 - b. Finish Coats: Exterior low sheen acrylic paint.
 - 2) S-W A-100 Exterior Latex low sheen, A12 Series, at 4.0 mils wet, 1.4 mils dry, per coat
3. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
 - a. Primer: Exterior gypsum soffit board primer.
 - 1) S-W Problock Latex Int/ Ext Primer-Sealer, B58W620, at 4mils wet, 1.4mils dry
 - b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) S-W Solo Semi-gloss 100 % Acrylic Int/Ext, A76 Series, at 4.0 mils wet, 1.5mils dry, per coat

Smooth Wood: Provide the following finish systems over smooth wood siding, wood trim, and other smooth exterior wood surfaces:

1. Flat Acrylic Finish: Two finish coats over a primer.
 - a. Primer: Exterior wood primer for acrylic enamels.
 - 1) S-W Exterior Latex Wood Primer, B42W8041, at 4mil wet, 1.4mils dry
 - b. Finish Coats: Exterior flat acrylic paint.
 - 2) S-W A-100 Exterior Latex Flat, A6 Series, at 4.0 mils wet, 1.3 mils dry, per coat
2. Low sheen Acrylic Finish: Two finish coats over a primer.
 - a. Primer: Exterior wood primer for acrylic enamels.
 - 1) S-W Exterior Latex Wood Primer, B42W8041, at 4mil wet, 1.4mils dry
 - b. Finish Coats: Exterior low-luster acrylic paint.
 - 2) S-W A-100 Exterior Latex low sheen, A12 Series, at 4.0 mils wet, 1.4 mils dry, per coat

Wood Trim: Provide the following finish systems over exterior wood trim:

1. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
 - a. Primer: Exterior wood primer for acrylic enamels.
 - 1) S-W Exterior Latex Wood Primer, B42W8041, at 4mil wet, 1.4mils dry
 - b. Finish Coats: Exterior semigloss acrylic enamel.

- 2) S-W Solo Semi-gloss 100 % Acrylic Int/Ext, A76 Series, at 4.0 mils wet, 1.5mils dry, per coat

Plywood: Provide the following finish systems over exterior plywood:

1. Flat Acrylic Finish: Two finish coats over a primer.
 - a. Primer: Exterior wood primer for acrylic enamels.
 - 1) S-W Problock Latex Int/ Ext Primer-Sealer, B58W620, at 4mils wet, 1.4mils dry
 - b. Finish Coats: Exterior flat acrylic paint.
 - 2) S-W A-100 Exterior Latex Flat, A6 Series, at 4.0 mils wet, 1.3 mils dry, per coat
4. 2. Low sheen Finish: Two finish coats over a primer. Standard system for Hollow Metal Doors & Frames.
 - a. Primer: Exterior wood primer for acrylic enamels.
 - 1) S-W Problock Latex Int/ Ext Primer-Sealer, B58W620, at 4mils wet, 1.4mils dry
 - b. Finish Coats: Exterior low-luster acrylic paint.
 - 2) S-W A-100 Exterior Latex low sheen, A12 Series, at 4.0 mils wet, 1.4 mils dry, per coat

Ferrous Metal: Provide the following finish systems over exterior ferrous metal. Primer is not required on shop-primed items.

1. Low-Luster Acrylic Finish: Two finish coats over a rust-inhibitive primer.
 - a. Primer: Exterior ferrous-metal primer.
 - 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
 - b. Finish Coat: Exterior low-luster acrylic paint.
 - 2) Pro Industrial Waterbased Alkyd Enamel Urethane Low sheen, at 4.0-5.0 mils wet, 1.3-1.6 mils dry, per coat.
2. Semigloss Acrylic-Enamel Finish: Two finish coats over a rust-inhibitive primer.
 - a. Primer: Exterior ferrous-metal primer.
 - 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
 - b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) Pro Industrial Waterbased Alkyd Enamel Urethane Semi-gloss, B53-1150/2150 at 4.0-5.0 mils wet, 1.3-1.6 mils dry, per coat.

Semigloss Acrylic-Enamel Finish: Two finish coats over a rust-inhibitive primer.

- a. Primer: Exterior ferrous-metal primer.
 - 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
 - b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) Pro Industrial Waterbased Alkyd Enamel Urethane Semi-gloss, B53-1150/2150 at 4.0-5.0 mils wet, 1.3-1.6 mils dry, per coat.
3. Bollards, Equipment, Canopies, Guard Rails, handrail, Piping: pigmented Polyurethane.([High Performance System](#))

- a. Primer: Exterior ferrous-metal primer.
 - 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
- b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) Pro Industrial WB Acrolon 100 WB Uretane Gloss, B65-520 at 2.4 mils dry, per coat

Hollow Metal Doors and Frames

- 1. Semigloss Acrylic-Enamel Finish: Two finish coats over a rust-inhibitive primer.
 - a. Primer: Exterior ferrous-metal primer.
 - 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
 - b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) Pro Industrial Waterbased Alkyd Enamel Urethane Semi-gloss, B53-1150/2150 at 4.0-5.0 mils wet, 1.3-1.6 mils dry, per coat

Zinc-Coated Metal: Provide the following finish systems over exterior zinc-coated metal surfaces:

- 1. Low-Luster Finish: Two finish coats over a galvanized metal primer.
 - a. Primer: Exterior galvanized metal primer.
 - 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
 - b. Finish Coat: Exterior low-luster acrylic paint.
 - 2) S-W Pro Industrial Waterbased Alkyd Enamel Urethane Low sheen, at 4.0-5.0 mils wet, 1.3-1.6 mils dry, per coat
- 2. Semigloss Acrylic-Enamel Finish: Two finish coats over a galvanized metal primer.
 - a. Primer: Exterior galvanized metal primer.
 - 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
 - b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) S-W Pro Industrial Waterbased Alkyd Enamel Urethane Semi-gloss, B53-1150/2150 at 4.0-5.0 mils wet, 1.3-1.6 mils dry, per coat

Aluminum: Provide the following finish systems over exterior aluminum surfaces:

- 1. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
 - a. Primer: Exterior aluminum primer under acrylic finishes.
 - 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
 - b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) S-W Pro Industrial Acrylic Semi-gloss, B66W651, at 6.0-12.0 mils wet, 2.2-4.4 mils dry, per coat.
- 2. Full-Gloss Acrylic-Enamel Finish: Two finish coats over a primer.
 - a. Primer: Exterior aluminum primer under acrylic finishes.

- 1) Pro Industrial Proc-Cryl Primer, B66W1310, at 5.0-10.0 mils wet, 1.9-3.8 mils dry, per coat
- b. Finish Coats: Exterior semigloss acrylic enamel.
 - 2) S-W Pro Industrial Acrylic Gloss, B66W600, at 6.0-12.0 mils wet, 2.2-4.4 mils dry, per coat.

E. Color Schedule:

1. Base (Body Color)

Classic French Gray SW 0077 (low luster)

2. Base (Body Color)

Lattice SW 7654 (low luster)

3. Accent (Soffit)

Snowbound SW 7004 (low luster)

4. Trim (Window/Door Frames, Fascia, Roof Items, Doors, Columns)

Tricorn Black SW 7657 (low luster)

6. Accent (Stripe)

School Accent Color (low luster)

Sealant colors shall be chosen by Owner from manufacturer's standard colors for each sealing condition.

END OF SECTION