SECTION 09 9000 – PAINTING AND COATING

PART 1 GENERAL

1. Section includes
1.1. Surface preparation.
1.2. Field application of paints and other coatings.
1.3. Scope: finish all interior and exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:

1.3.1. Both sides and edges of plywood backboards for electrical and telecom equipment before installing equipment.

1.3.2. Exposed surfaces of steel lintels and ledge angles.

1.4. Do not paint or finish the following items:

1.4.1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finishes,

1.4.2. Items indicated to receive other finishes

1.4.3. Items indicated to remain unfinished

1.4.4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.

1.4.5. Non-metallic roofing and flashing.

1.4.6. Stainless steel, anodized aluminum, bronze, terne, and lead items.

1.4.7. Floors, unless specially so indicated.

1.4.8. Ceramic and other tiles.

1.4.9. Brick, architectural concrete, cast stone, integrally colored plaster and stucco.

1.4.10. Glass.

1.4.11. Acoustical materials, unless specifically so indicated.

1.4.12. Concealed pipes, ducts, and conduits.

2. DEFINITIONS
2.1. Conform to astm d16 for interpretation of terms used in this section.

3. DELIVERY, STORAGE, AND HANDLING
3.1. Deliver products to site in sealed and labeled container; inspect to verify acceptability.
3.2. Container label: include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
3.3. Paint materials: store at minimum ambient temperature of 45 degrees f (7 degrees c) and a maximum of 90 degrees f (32 degrees c), in ventilated area, and as required by manufacturer's instructions.

4. FIELD CONDTIONS
4.1. Do not apply material when surface ad ambient temperature are outside temperature ranges required by the paint product manufacturer.
4.2. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
4.3. Do not apply exterior coating during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
4.4. Minimum application temperature for latex paints: 45 degrees f (7 degrees c) for interior; 50 degrees f (10 degrees c) for exterior, unless required otherwise by manufacturers' instructions.
4.5. Minimum application temperature for varnish finishes: 65 degrees f (18 degrees c) for interior or exterior, unless required otherwise by manufacturer's instructions.
4.6. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

1. MANUFACTURERS
1.1. Provide all paint and coating products used in any individual system from the same manufacturer, no exceptions.
1.2. Primer sealers: same manufacture as topcoats.
1.3. Block filler: same manufacturer as topcoats.
1.4. Substitutions: see section 01 6000 – product requirements.

2. PAINTS AND COATINGS – GENERAL
2.1. paints and coatings: ready mixed, unless intended to be a field-catalyzed coating.

2.1.1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.

2.1.2. Provide materials that are compatible with one another, and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

2.1.3. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish as base color

2.1.4. Supply each coating material in quantity required to complete entire project's work from a single production run.

2.1.5. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.

2.2. Primers: where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
2.3. Volatile organic compound (voc) content:

2.3.1. Provide coatings that comply with the most stringent requirements specified in the following:

2.3.1.1. 40 cfr 59, subpart d--national volatile organic compound emission standards for architectural coatings.

2.3.1.2. Architectural coatings voc limits of authority having jurisdiction

2.3.2. Determination of voc content: testing and calculation in accordance with 40 cfr 59, subpart d (epa method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.

2.4. Chemical content: the following compounds are prohibited:

2.4.1. Aromatic compounds: in excess of 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).

2.4.2. Acrolein, acrylonitrile, antimony, benzene, butyl benzyl phthalate, cadmium, di (2-ethylhexyl) phthalate, di-n-butyl phthalate, di-n-octyl phthalate, 1, 2-dichlorobenzene, diethyl phthalate, dimethyl phthalate, ethylbenzene, formaldehyde, hexavalent chromium, isophorone, lead, mercury, methyl ethyl ketone, methyl isobutyl ketone, methylene chloride, naphthalene, toluene (methylbenzene), 1,1,1-trichloroethane, vinyl chloride.

2.5. Flammability: comply with applicable code for surface burning characteristics.
2.6. Sheens: provide the sheens specified; where sheen is not specified, sheen will be selected later by architect from the manufacturer's full line.
2.7. Colors: as selected by owner / architect.

3. ACCESSORY MATERIALS
3.1. Accessory materials: provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.
3.2. Patching material: latex filler.
3.3. Fastener head cover material: latex filler

PART 3 EXECUTION

1. EXAMINATION
1.1. DO NOT BEGIN APPLICATION OF COATINGS UNTIL SUBSTRATES HAVE BEEN PROPERLY PREPARED.
1.2. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
1.3. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
1.4. If substrate preparation is the responsibility of another installer, notify architect of unsatisfactory preparation before proceeding.
1.5. Test shop-applied primer for compatibility with subsequent cover materials.
1.6. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:

1.6.1. Gypsum wallboard: 12 percent.

1.6.2. Plaster and stucco: 12 percent.

1.6.3. Masonry, concrete, and concrete unit masonry: 12 percent.

1.6.4. Interior wood: 15 percent, measured in accordance with ASTM D4442.

1.6.5. Exterior wood: 15 percent, measured in accordance with ASTM D4442.

2. PREPARATION
2.1. Clean surfaces thoroughly and correct defects prior to coating application.
2.2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
2.3. Remove or repair existing coatings that exhibit surface defects.
2.4. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
2.5. Seal surfaces that might cause bleed through or staining of topcoat.
2.6. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
2.7. Concrete and unit masonry surfaces to be painted: remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
2.8. Gypsum, board surfaces to be painted: fill minor defects with filler compound. Spot prime defects after repair.
2.9. Plaster surfaces to be painted: fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.
2.10. Asphalt, creosote, or bituminous surfaces to be painted: remove foreign particles to permit adhesion of finishing materials. Apply latex based sealer or primer.
2.11. Aluminum surfaces to be painted: remove surface contamination by steam or high-pressure water. Remove oxidation with acid etch and solvent washing. Apply etching primer immediately following cleaning.
2.12. Copper surfaces to be painted: remove contamination by steam, high pressure water, or solvent washing. Apply vinyl etch primer immediately following cleaning.
2.13. Galvanized surfaces to be painted: remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
2.14. Corroded steel and iron surfaces to be painted: prepare using at least sspc-pc 2 (hand tool cleaning) or sspc- sp 3 (power tool cleaning) followed by sspc-sp 1 (solvent cleaning).
2.15. Uncorroded uncoated steel and iron surfaces to be painted: remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scales are evident, remove by and or power tool wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint entire surface; spot prime after repairs.
2.16. Shop-primed steel surfaces to receive opaque finish: wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried, sand between coats. Prime concealed surfaces with gloss varnish reduced 25 percent with thinner.
2.17. Interior wood surfaces to receive opaque finish: wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried, sand lightly between coats. Prime concealed surfaces with gloss varnish reduced 25 percent with thinner.
2.18. Interior wood surfaces to receive transparent finish: wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.
2.19. Exterior wood surfaces to receive opaque finish: remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior caliking compound after prime coat has been applied. Back prime concealed surfaces before installation.
2.20. Metal doors to be painted: prime metal door top and bottom edge surfaces.

3. APPLICATION
3.1. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
3.2. Exterior wood to receive opaque finish: if final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.
3.3. Apply products in accordance with manufacturer's instructions.
3.4. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
3.5. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
3.6. Apply each coat to uniform appearance
3.7. Dark colors and deep clear colors: regardless of number of coats specified, apply as many coats as necessary for complete hide.
3.8. Sand wood and metal surfaces lightly between coats to achieve required finish.
3.9. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
3.10. Wood to receive transparent finishes: tint filler to match wood. Work fillers into the grain before set. Wipe excess from surface.
3.11. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

4. CLEANING
4.1. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site

5. PROTECTION
5.1. Protect finished coatings until completion of project
5.2. Touch-up damaged coatings after substantial completion.

COPYRIGHT c 2022

STATE OF GEORGIA
JOHN WILLIAM FRANZ
CERTIFICATE NUMBER
REGISTERED ARCHITECT
01-26-22

JOHN FRANZ
architect
4055 International Plaza Suite 100
Fort Worth, Texas 76109
(817) 737-9922

STRICKLAND AND BROTHERS
TBD HWY 53
DAWSONVILLE, GA 30534

Revisions:

File Name: 22047 – SP1.0
Project No: 22047
Date: 01/26/22
Drawn By: TI
Checked By:

SHEET
SP1.3
SPECIFICATIONS