SECTION 099113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 M.S.U. ISSUES

A. Paint is discouraged as an exterior finish, except for restoration purposes to match existing materials.

B. Painting is not required on pre-finished items, finished metal surfaces, concealed surfaces, operating parts, and labels.

1. Pre-finished items NOT to be painted include the following factory-finished components:

    a. Metal toilet enclosures
    b. Acoustic materials
    c. Architectural woodwork and casework
    d. Elevator entrance doors and frames
    e. Elevator equipment
    f. Finished mechanical and electrical equipment
    g. Light fixtures
    h. Switchgear

2. Concealed surfaces NOT to be painted include wall or ceiling surfaces in the following generally inaccessible areas:

    a. Foundation spaces
    b. Furred areas
    c. Utility tunnels
    d. Pipe spaces
    e. Duct shafts
    f. Elevator shafts
    g. Mechanical rooms

3. Operating parts NOT to be painted include moving parts of operating equipment such as the following:

    a. Valve and damper operators
    b. Linkages
    c. Sensing devices
    d. Motor and fan shafts

4. Finished metal surfaces NOT to be painted include:

    a. Anodized aluminum
    b. Stainless steel
    c. Chromium plate
    d. Copper

e. Bronze
f. Brass
g. Galvanized steel (unless specifically designated to be painted)

5. Do not paint over Underwriter's Laboratories, Factory Mutual or other code-required labels or equipment name, identification, performance rating or nomenclature plates.

C. Painting includes field painting exposed bare and covered pipes and ducts (including color coding), hangers, exposed steel and ironwork, and primed metal surfaces of mechanical and electrical equipment, in interior finished spaces only. Access panel covers must be painted separately, according to the following code: Electrical – orange, Communications – blue, Alarms – red.

D. Paint exposed surfaces whether or not colors are designated in paint schedules, except where a specific designation indicates the surface or material is not to be painted or is to remain natural. Where an item or surface is not specifically mentioned, paint the same as similar adjacent materials or surfaces. If color or finish is not designated, the M.S.U. project representative will select from standard colors or finishes available.

1.2 SUMMARY

A. This Section includes surface preparation and the application of paint systems on the following exterior substrates:

1. Concrete.
2. Concrete masonry units (CMU).
3. Steel.
4. Galvanized metal.
5. Aluminum (not anodized or otherwise coated).
6. Wood.
7. Exterior Portland cement (stucco).

B. Unless otherwise indicated, surface preparation, priming and finish coats specified in this section are in addition to shop priming and surface treatment specified under other sections.

C. Related Sections include the following:

1. Division 05 Sections for shop priming of metal substrates with primers specified in this Section.
2. Division 08 Sections for factory priming windows and doors with primers specified in this Section.
3. Division 09 Section INTERIOR PAINTING for surface preparation and the application of paint systems on interior substrates.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated, submitted to the M.S.U. Project Representative prior to project inception. List each material by the manufacturer's catalog

number and general classification. The University retains the right to approve or disapprove any proposed equivalent paint products.

B. Samples for initial color selection: in the form of manufacturer's color charts. After color selection, the M.S.U. project representative will furnish color chips for surfaces to be coated. It is the contractor's responsibility to provide the M.S.U. project representative with three draw downs of each product and color combination to be used for final approval.

C. Samples for Verification, when requested: For each type of paint system and each color and gloss of topcoat indicated.

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. An actual color sample, 4' X 4', shall be painted on one wall of the jobsite for verification of actual wall color prior to any other painting. Actual color samples of other selected paints shall be painted on appropriate surfaces for verification as directed by the M.S.U. project representative.

E. Product List: For each product indicated, include the following:

1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the job site in the 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. Federal Specification number, if applicable
4. Manufacturer's stock number and date of manufacture.
5. Thinning instructions.
6. Application instructions.
7. Color name and number.

B. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperature continuously maintained at not less than 45 deg F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Keep storage area neat and orderly. Remove rags and waste from storage areas daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards from handling, mixing and application.
3. Paint/varnish removers shall be non-flammable.

1.5 PROJECT CONDITIONS

A. Apply water based paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 90 deg F.

B. Apply solvent-thinned paints only when temperature of surfaces to be painted and ambient air temperatures are between 45 and 95 deg F.

C. 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. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by the manufacturer during application and drying periods.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. The Glidden Co./PPG
2. Devoe Paint/PPG.
3. O'Leary Paints
4. Sherwin-Williams Company (The).
5. Benjamin Moore & Co.
6. PPG

If products by manufacturers not listed above are recommended, they must be approved by M.S.U. at least 2 weeks prior to bidding.

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.

2.3 BLOCK FILLERS

A. Heavy-duty latex block filler: Used for filling open textured interior and exterior concrete block, above grade, before application of topcoats. This material should not be used in areas that are subject to continuous high moisture conditions such as daily washing, etc.

1. PPG: Devoe Bloxfil 4000-1000 Heavy Duty Acrylic Block Filler
2. O'Leary Paints: C946-11 Industrial Latex Block Filler G

3. Sherwin-Williams Company (The): Heavy Duty Block Filler B42W46 G
4. Benjamin Moore & Co.: 206 Super Spec Masonry 100% Acrylic Hi-Build Block Filler
5. PPG: Pitt-Glaze Interior/Exterior Block Filler 16-90

2.4 METAL PRIMERS

A. Ext., Rust-Inhibiting Acrylic Primer: Quick drying, rust-inhibiting primer for priming galvanized and ferrous and non-ferrous metals under acrylic and alkyd topcoats.

1. PPG: Devoe Devflex 4020 PF
2. O'Leary Paints: 36-11 Primer G
3. Sherwin-Williams Company (The): Procryl B66W310 G
4. Benjamin Moore & Co.: P04 Acrylic Metal Primer
5. PPG: Pitt-Tech Interior/Exterior Primer/Finish DTM 90-712/912 Series

2.5 WOOD PRIMERS

A. Exterior Acrylic Wood Primer: Exterior 100% acrylic wood primer used for priming both wood and cement surfaces under both acrylic and oil base exterior finishes.

1. PPG/Glidden: Gripper Interior/Exterior Primer Sealer 3210
2. O'Leary Paints: 2090 Acrylic Bonding Primer G
3. Sherwin-Williams Company (The): B42WP041 Exterior Latex Primer
4. Benjamin Moore & Co.: N023 Fresh Start Acrylic Primer/Sealer
5. PPG: Seal Grip Interior/Exterior Acrylic Universal Primer/Sealer 17-921 Series

2.6 EXTERIOR LATEX PAINTS

A. Exterior Acrylic Emulsion: Quick-drying, flat, 100% acrylic paint for use on the exterior over concrete, stucco, masonry (including concrete masonry block), mineral-fiber reinforced cement-panel surfaces, properly primed wood surfaces, and factory primed Masonite siding. New, primed Masonite siding should receive two full coats of finish.

1. PPG: Fortis 350 Exterior Flat Paint 2200V
2. O'Leary Paints: 2105 Sungard Acrylic Latex Flat House Paint G
3. Sherwin-Williams Company (The): Super Paint A80W151 Acrylic Latex Flat Exterior G
4. Benjamin Moore & Co.: 0541 Ben WB Acrylic Flat
5. PPG: Speedhide Exterior 100% Acrylic Latex Flat 6-610 XI Series

B. Exterior Satin Semi-Gloss Acrylic Emulsion: Quick-drying, satin, 100% acrylic paint for use on the exterior over concrete, stucco, masonry (including concrete masonry block), mineral-fiber reinforced cement-panel surfaces, properly primed wood surfaces, and factory primed Masonite siding. New, primed Masonite siding should receive two full coats of finish.

1. PPG: Fortis 350 Exterior Satin Paint 2402V
2. O'Leary Paints: L 2400 Sungard Acrylic Latex Satin House Paint G
3. Sherwin-Williams Company (The): A89 Super Paint G A89W1151G

4. Benjamin Moore & Co.: 0543 Ben WB Acrylic Soft Gloss
5. PPG: Speedhide Exterior 100% Acrylic Latex Satin 6-2045 XI Series

C. Exterior Gloss Acrylic Emulsion: Quick-drying, gloss, 100% acrylic paint for use on the exterior over concrete, stucco, masonry (including concrete masonry block), mineral-fiber reinforced cement-panel surfaces, properly primed wood surfaces, and factory primed Masonite siding. New, primed Masonite siding should receive two full coats of finish.

1. PPG: Fortis 350 Exterior Semi-Gloss Paint 2406V
2. O'Leary Paints: L- 8000 Acrylic Gloss G
3. Sherwin-Williams Company (The): A84 Super Paint G
4. Benjamin Moore & Co.: P28 Acrylic Gloss Enamel
5. PPG: Speedhide Exterior 100% Acrylic Latex Semi-Gloss 6-901 XI Series

D. Interior/Exterior Acrylic Machinery Enamel Gloss: Premium quality gloss 100% acrylic enamel for use on interior and exterior metal and concrete surfaces where abrasion is a problem. This product shall have excellent adhesion characteristics even to existing alkyd finish coats and provide a smooth brush-mark free surface. TO BE USED ON METAL DOORS AND FRAMES. Use deep base and ultra-deep base in the same product line.

1. PPG: Devoe Devflex 4208 QD
2. O'Leary Paints: Duramax Acrylic Gloss L-8000 G
3. Sherwin-Williams Company (The): DTM B66 W111 Gloss
4. Benjamin Moore & co.: (P28) Acrylic Gloss Enamel
5. PPG: Pitt-Tech Plus Interior/Exterior Gloss DTM 90-374 Series -or-
   Pitt-Tech Plus Interior/Exterior High-gloss DTM 90-1310- Series

E. Interior/Exterior Acrylic Machinery Enamel Semi-Gloss: Premium quality semi-gloss 100% acrylic enamel for use on interior and exterior metal and concrete surfaces where abrasion is a problem. This product shall have excellent adhesion characteristics even to existing alkyd finish coats and provide a smooth brush-mark free surface. TO BE USED ON METAL DOORS AND FRAMES. Use deep base and ultra-deep base in the same product line.

1. PPG: Devoe Devflex 4206 QD
2. O'Leary Paints: 9000 Duramax Acrylic Semi-Gloss L-9000 G
3. Sherwin-Williams Company (The): DTM B66 W 211
4. Benjamin Moore & Co.: (P29) Acrylic Semi-Gloss Enamel G
5. Pitt-Tech Plus Int./Ext. Semi-gloss DTM Industrial Enamel 90-1210 Series

F. Acrylic DTM Semi-Gloss: Weather resistant, int./ext. acrylic semi-gloss for use on metal ducts, galvanized and ferrous and non-ferrous metals.

1. PPG: Devoe Devflex 4206 QD
2. O'Leary Paints: 182 Industrial Acrylic DTM Semi
3. Sherwin-Williams Company (The): DTM Acrylic Semi-Gloss B66W211
4. Benjamin Moore & Co.: (P29) Acrylic Semi-Gloss Enamel
5. Pitt-Tech Plus Int./Ext. Semi-gloss DTM Industrial Enamel 90-1210 Series

G. Acrylic Solid Color Stain, Wood Shakes and Rough Siding: Thin-bodied acrylic latex paint for use on the exterior for a flat finish on wood shakes and rough siding.

1. PPG: Wood Pride Solid Color Stain 2600
2. O'Leary Paints: 3700 Dual Coat Solid Color G
3. Sherwin-Williams Company (The): Woodscapes Solid Stain A 15 W51
4. Benjamin Moore & Co.: (640) Arbor Coat Acrylic Deck & Siding Stain
5. PPG: Flood Solid Color 100% Acrylic Stain FLD820 Series

2.7 EXTERIOR ALKYD/OIL BASED PAINTS

A. Alkyd-Oil Paint for Wood Shakes and Rough Siding: Thin bodied alkyd-oil paint for use on the exterior for a flat finish on wood shakes and rough wood siding.
1. O'Leary Paints: 3500 Rustic Heavy Bodied Solid Color Stain G
2. Sherwin-Williams Company (The): Exterior Solid Stain A-14 Series G
3. Benjamin Moore & Co.: (C080) Alkyd Solid Exterior Stain G

B. Exterior Semi-Transparent Oil Stain: Semi-transparent oil based exterior wood stain.
1. O'Leary Paints: 3541 Rustic Oil Semi-Transparent Wood Stain G
2. Sherwin-Williams Company (The): A18C50602
3. Benjamin Moore & Co.: (328) Alkyd Semi-transparent Exterior Stain G
4. PPG: Flood TWF Semi-transparent Oil Stain FLD802

C. Tung Oil-Phenolic Marine Spar Varnish: Clear, marine spar varnish with U.V. absorbers for use in coating exterior wood doors, trim, etc.

1. O'Leary Paints: 149-10 Marine Spar Varnish G
2. Sherwin-Williams Company (The): Minwax Spar Urethane G
3. PPG: Deft Interior/Exterior Polyeurethane Varnish

2.8 SURFACE PREPARATION AGENTS: Paint and varnish removers shall be non-flammable.

A. Oil and Grease Emulsifier: Oil and grease emulsifier for cleaning walls, ceilings floors and equipment.

1.
2. O'Leary Paints: Coronado 93-500
3. Sherwin-Williams Company (The): Extra Muscle Cleaner
4. Benjamin Moore & Co.: (P83) Oil and Grease Emulsifier G
5. PPG: DuraPrep Prep 88 Waterborne Alkaline Cleaner

B. Epoxy and Urethane Remover: For stripping old epoxy or urethane coatings from surfaces to be re-coated.
1. O'Leary Paints: Coronado 93-600
2. Sherwin-Williams Company (The): Savogran Super-Strip.
3. Benjamin Moore & Co.: None
4. PPG: DuraPrep Prep 220 Commercial Coating Remover

C. Rust Removal and Metal Pre-treatment: For use in converting rust oxide and treatment of metal to promote coating adhesion.

1.

2. O'Leary Paints: Coronado 93-300
3. Sherwin-Williams Company (The): B58T101 Macropoxy 920 pre-prime
4. PPG: PMC Amerlock Two-component, Penetrating Epoxy Primer Sealer

D. Concrete Etch: Concrete pre-treatment for use in removing the laitance and etching smooth concrete to improve coating adhesion.

1. O'Leary Paints: Coronado 93-400
2. Sherwin-Williams Company (The): Startex Muriatic Acid
3. Benjamin Moore & Co.: (P85) Concrete Pre-treatment & Etch G
4. PPG: DuraPrep 100 Concrete Etch

E. Rust Converter: For converting rust into a black protective film.

1. PPG: Devoe Pre-Prime 167
2. O'Leary Paints: Coronado 93-900
3. Sherwin-Williams Company (The): Ospho Rust Converter
4. Benjamin Moore & Co. P82 Rust Converter

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 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. Plaster: 12 percent.
5. Gypsum Board: 12 percent.

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

D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

A. Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, electrical panel box doors and similar items already in place that 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 if any.
   2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.

B. Protect work of other trades, whether to be painted or not, against damage by painting. Correct damage by cleaning, repairing, replacing, and/or repainting, as acceptable to the M.S.U. project representative. Provide “Wet Paint” signs to protect newly painted finishes. At completion of construction activities of other trades, touch up and restore all damaged or defaced painted surfaces.

C. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
   1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall onto wet, newly painted surfaces.
   2. Provide barrier coats over incompatible primers or remove and re-prime. Notify M.S.U. project representative in writing of problems anticipated with use of specified finish coat material with substrates primed by others.

D. Cementitious Material Substrates: Remove dust, dirt, grease, oil, release agents, curing compounds, efflorescence, and chalk.
   1. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation. Use abrasive blast-cleaning methods if recommended by the paint manufacturer.
   2. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
   3. Clean concrete floors to be painted with a five percent solution of muriatic acid or other etching cleaner. Flush the floor with clean water to remove acid, neutralize with ammonia, vacuum, rinse and allow drying before painting.

E. Steel Substrates: Clean non-galvanized ferrous-metal surfaces that have been shop coated: remove oil, grease, dirt, loose mill scale and other foreign substances. Use solvent or mechanical cleaning methods that comply with recommendations of the Steel Structures Painting Council. Touch up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by the paint manufacturer, and touch-up with the same primer as the shop coat.

F. Galvanized-Metal Substrates: Clean galvanized surfaces with non-petroleum-based solvents so the surface is free of oil and surface contaminants. Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints. If galvanized metal is chromate passivated (“bonderized”) consult manufacturers for appropriate surface preparation and primers.

G. Aluminum Substrates: Remove surface oxidation.

H. Wood Substrates:
   1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
   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.
   5. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately upon delivery.
   6. Stripping and refinishing existing wood doors, trim, etc.
      a. Contractors shall take care to achieve clean and clear surfaces that will take stain uniformly. In some instances bleaching of the wood may be necessary. All existing varnish and stripping residue shall be removed and the surface neutralized and sanded smooth to assure a smooth and uniform finish.

I. Plaster Substrates: Do not begin paint application until plaster is fully cured and dry.

J. Exterior Gypsum Board Substrates: Do not begin paint application until finishing compound is dry and sanded smooth.

K. Repainting: Prime coats may be omitted with the exception of patched or repaired areas that should be spot-primed to ensure a uniform finish. Special care should be taken in re-coating existing alkyd or epoxy surfaces to prevent inter-coat adhesion failures. Painting of patch and repair work shall be painted out to the nearest break line, including areas in corridors, as directed by the M.S.U. Project Representative.

L. Paint: Carefully mix and prepare paint materials in accordance with manufacturer's directions. Maintain containers used in mixing and application of paint in a clean condition, free of foreign materials or residue. Stir material before application to produce a mixture of uniform density; stir as required during application. Remove any surface film and, if necessary, strain material before using. Do not stir surface film into material. Use only thinners approved by the paint manufacturer and only within recommended limits.

M. Tinting: Where multiple coats of the same material are applied, tint undercoats to match the color of the finish coat, but in a sufficiently lighter shade to distinguish each separate coat.

3.3 APPLICATION

A. Paint colors, surface treatments, and finishes are indicated in schedules. Provide finish coats that are compatible with primers used.

B. Before application of finish coats, apply a prime coat of material as recommended by the manufacturer to material that is required to be painted or finished and has not been primed by others. Re-coat 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.

C. Apply materials at not less than the manufacturer's recommended spreading rate. Provide a total dry film thickness of the entire system as recommended by the manufacturer. Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.

D. Apply paints according to manufacturer's written instructions. Use applicators and techniques best suited for paint and substrate indicated. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.

E. The number of coats and film thickness required is the same regardless of the application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. Sand between applications where sanding is required in order to produce and even, smooth surface in accordance with the manufacturer's directions. Sand lightly between each succeeding enamel or varnish coat

F. Apply first coat to surfaces that have been cleaned, pre-treated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

G. The term "exposed surfaces" includes areas visible when a permanent or built-in fixture, convector covers, covers for finned tube radiation, grilles, and similar components are in place. Extend coatings in these areas as required to maintain the system integrity and provide desired protection. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, nonspecular black paint. Paint back sides of access panels and removable or hinged covers to match exposed surfaces.

H. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.

I. Finish exterior doors on tops, bottoms, and side edges the same as exterior faces.

J. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.

K. All materials will be applied under adequate lighting, evenly spread and flowed on smoothly. Cut in sharp lines and color breaks.
   1. Pigmented (opaque) finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance, and overage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, or other surface imperfections will not be acceptable.
   2. Transparent (clear) finishes: Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, or other surface imperfections. Provide satin finish for final coats.

3.4 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.

3.5 EXTERIOR PAINTING SCHEDULE

A. Concrete Masonry Units Substrates:
   1. Lusterless (Flat) Acrylic System:

      a. Two coats over block filler with total dry film thickness not less than 2.5 mils, excluding the block filler.
         1) Prime Coat: High Performance Latex Block Filler
         2) Intermediate Coat: Exterior Acrylic Emulsion
         3) Topcoat: Exterior Acrylic Emulsion

   2. Satin-Gloss Acrylic Finish:

      a. Two coats over block filler with total dry film thickness not less than 2.5 mils, excluding the block filler.
         1) Prime Coat: High Performance Latex Block Filler
         2) Intermediate Coat: Exterior Satin Semi-Gloss Acrylic Emulsion
         3) Topcoat: Exterior Satin Semi-Gloss Acrylic Emulsion

B. Ferrous (and Non-Ferrous Galvanized and Aluminum) Metal Substrates:

   1. Includes doors, doorframes, bumper posts, exposed structural steel, etc. Two finish coats over primer (primer is not required on shop-primed items).

      a. Gloss Acrylic System
         1) Prime Coat: Acrylic Primer
         2) First Coat: DTM Acrylic Gloss
         3) Second Coat: DTM Acrylic Gloss

      b. Semi-Gloss Acrylic System
         1) Prime Coat: Acrylic Metal Primer
         2) First Coat: DTM Acrylic Semi-Gloss Enamel
         3) Second Coat: DTM Acrylic Semi-Gloss Enamel

      c. Gloss Acrylic System
         1) Prime Coat: Acrylic Metal Primer
         2) First Coat: Exterior Acrylic Machinery Enamel Gloss
         3) Second Coat: Exterior Acrylic Machinery Enamel Gloss

      d. Semi-Gloss Acrylic System
         1) Prime Coat: Acrylic Metal Primer
         2) First Coat: Exterior Acrylic Machinery Enamel Semi-Gloss
         3) Second Coat: Exterior Acrylic Machinery Enamel Semi-Gloss

C. Dressed Lumber and Wood Panel Substrates:

   1. Gloss Finish: 45-70 degrees

      a. Two finish coats over primer with total dry film thickness not less than 3.5 mils.
         1) Prime Coat: Exterior Acrylic Wood Primer.
         2) Intermediate Coat: Exterior Gloss Acrylic Emulsion

3) Topcoat: Exterior Gloss Acrylic Emulsion

2. Satin Semi Gloss Finish: 20-45 degrees

a. Two finish coats over primer with total dry film thickness not less than 3.5 mils.
1) Prime Coat: Exterior Acrylic Wood Primer.
2) Intermediate Coat: Exterior Satin Semi-Gloss Acrylic Emulsion
3) Topcoat: Exterior Satin Semi-Gloss Acrylic Emulsion

3. Low Luster Finish: 0-20 degrees

a. Two finish coats over primer with total dry film thickness not less than 3.5 mils.
1) Prime Coat: Exterior Acrylic Wood Primer.
2) Intermediate Coat: Exterior Acrylic Emulsion
3) Topcoat: Exterior Acrylic Emulsion

D. Wood Shakes and Rough Siding Substrates:

1. Solid Stain Finish:
a. First Coat: Alkyd-Oil Paint
b. Second Coat: Acrylic Solid Color Stain

2. Semi-Transparent Stain Finish:
a. First Coat: Exterior Semi-Transparent Oil Stain
b. Second Coat: Exterior Semi-Transparent Oil Stain

E. Problem Areas:

1. Glazed Tile, Ceramic, Porcelain, Tile, Glass, and Marble

a. First Coat: Acrylic Bonding Primer
b. Second Coat and Top Coat (required): Use appropriate systems as specified.

2. Damp Areas, Boiler Rooms, etc./ Pipes, Concrete, Walls, and Ceilings

a. First Coat: Acrylic Moisture Bond Primer
b. Second Coat: Acrylic Moisture Bond Enamel

3. Handicap ramps, steps, areas where anti-slip coatings may be required:
a. Surface preparation: Acid-etch concrete if required. Prime if previously painted.
b. First Coat: Epoxy Modified Acrylic Anti-slip Coating
c. Second Coat: Epoxy Modified Acrylic Anti-slip Coating

END OF SECTION 099113