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SECTION 09900 - PAINTING

**PART 1 GENERAL**

1.01 WORK REQUIRED

- A. Paint exterior and interior surfaces exposed to view or requiring protection from the elements, except the following:
  - 1. Floors and roofs, unless otherwise noted; walls where other finishes are scheduled; and parking area markings.
  - 2. Non-ferrous metals except that copper, brass, and aluminum surfaces shall be varnished or enameled where specifically called for.
  - 3. Pre-finished materials, fixtures and equipment, unless otherwise noted.
  - 4. Materials which are normally used in their natural finish, such as brick, stone, tile, glass, etc.
  - 5. Shop or mill priming coats specified elsewhere, factory or shop applied finishes.
- B. Paint equipment hangers, support steel, ducts, access doors, panelboard covers, grilles, registers, louvers, and other metallic surfaces of the air conditioning, heating, ventilating, plumbing, and electrical installations where exposed to view, except in mechanical rooms. Paint steel pipe railings and ladders at scuttles and elevator pits.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 05120 – Structural Steel: Shop coat on structural steel.
- B. Section 05500 – Miscellaneous Metals: Priming of miscellaneous metals.
- C. Section 06410 – Cabinets and Casework: Factory finished cabinets and fixtures.
- D. Section 07920 – Sealants and caulking.
- E. Section 08110 – Metal Doors and Frames: Priming of hollow metal doors and frames.
- F. Section 10440 – Identifying Devices.
- G. Sections (Applicable) – Factory pre-finished items as specified.

1.03 DEFINITIONS

- A. The term "paint", as used herein includes enamels, paints, sealers, fillers, stains, and coating systems whether used as prime, intermediate or finish coats.
- B. The term "system" implies that each finish is comprised of materials and quantities

recommended by the approved materials manufacturer for the specified surface, and including preparation, priming/sealing, intermediate and finish coats as applicable.

- C. Concealed Spaces or Surfaces: Includes items specified in this Section that will be covered by other trades with a finish material in a manner that such items are not exposed to view when construction is completed.
- D. Exposed Spaces or Surfaces: Includes items specified in this Section that are exposed to view when construction is completed. This includes both exterior and interior spaces and surfaces.
- E. Top Line: Best quality trade sales product for specified use produced by approved manufacturer.

#### 1.04 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies:
  - 1. In addition to complying with other legal requirements, comply with Consumer Products Safety Act (CPSA), 16 CFR Part 1303 - Ban of Lead Containing Paint and Certain Consumer Products Bearing Lead Containing Paint.
- B. Reference Specifications and Standards:
  - 1. Comply with the Following:
    - a. ASTM D237 - Orange Shellac and Other Lacs.
    - b. ASTM D260 - Boiled Linseed Oil.
    - c. ASTM D523 - Test for Specular Gloss.
- C. Job Site Sample Panels:
  - 1. Provide paint and stain finish systems over surfaces designated by Resident to be a basis for judging quality of workmanship throughout the project.
  - 2. Prepare surfaces and apply specified finishes in accord with the specified requirements.
  - 3. Apply colors selected by Resident for each designated surface.
  - 4. Prepare required samples on walls or surfaces within the building at locations selected by Resident. Sample panels shall be 100 sq. ft. minimum for walls and as directed by Resident for other surfaces. Prepare sample panels on each of the following surfaces:
    - a. Opaque finishes.
      - (1) Concrete.
      - (2) Wood.
      - (3) Metal; galvanized and non-galvanized.
      - (4) Cement plaster.
      - (5) Gypsum board.

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- (6) Gypsum plaster.
    - b. Transparent and other finishes: To surfaces designated by Resident.
  - 5. Notify Resident when sample panels are ready for inspection for color, texture and workmanship.
    - a. Provide suitable lighting as directed by Resident, during Resident's inspection.
  - 6. Modify or correct work on sample panels as directed by Resident.
  - 7. Do not proceed with work of this Section prior to obtaining Resident's approval of sample panels.
  - 8. Repeat the process as necessary to obtain the approval.
  - 9. Approved panels will be used to judge other areas of similar finish. Protect sample panels from all damages to project completion.
- D. Finishing Systems:
- 1. Unless otherwise specified, or approved by Resident, use products and systems of one manufacturer throughout the project.
  - 2. Apply each coat of opaque paint with a slightly different tint from the finish color, so that each coat may be identified during inspection.
  - 3. Obtain Resident's approval for each coat prior to applying further coats.
  - 4. Reflectance of paint: Determine the degree of gloss or flatness on the painted surfaces by specular reflectance or gloss meter readings on a scale of 100 using "Method of Test for Specular Gloss", ASTM D523, within the following ranges:
    - a. Gloss           75-100
    - b. Semi-gloss     45-75
    - c. Eggshell       30-45
    - d. Low Luster     15-30
    - e. Flat            1-10
- E. Paint Formulation: All paint materials subject to mildew shall be specially formulated for the central Florida area environment, with anti-mildew agents incorporated into the formulation. This requirement applies to interior and exterior materials. In addition, include carefully balanced ultraviolet inhibitors for exterior materials.
- F. Provide materials of the best quality produced by the manufacturer for each type of coating. The Owner reserves the right to withdraw samples, at any time, from materials delivered to the site and submit them to a qualified independent testing laboratory for analysis of their composition to insure compliance with the manufacturer's formulation; and to perform dry film thickness tests. Materials and work failing to conform to manufacturer's standards or these specifications will be rejected.
- G. Guaranteed Coverage: Regardless of the number of coats and film thickness specified, guarantee that paint film after application and drying covers the surface with a solid,

uniform, and even color of the shade, hue, and intensity of the color selected, and that completely hides the substrate from view. Provide additional work, if required to comply with this requirement, without increase in cost to the Owner.

- H. Pre-Application Meeting: At least 30 days before starting major painting operations, arrange a meeting with the Owner's Representative, the Resident or its representatives, the Painting Subcontractor, and optionally representatives of the paint manufacturers and other parties involved in the work of this section. The agenda shall include:
1. Review of proposed materials and their compliance with specifications.
  2. Procedures to be followed and methods to be used in painting of new work.
  3. Review of improved or alternate methods suggested to prepare surfaces for painting, based on on-site surveys and tests made by the parties present.
  4. Review extent, procedures and schedules for on-site tests, observation and supervision by Materials Manufacturer's Representative to enable the manufacturer to issue the required guarantees.
  5. Review of warranties and guarantees required by the various parties, as specified in this section, in addition to the general guarantee required by the General Conditions; and statement by all parties concerned of their agreement or objection to the terms. Such statements shall be recorded in writing as part of the minutes of the meeting, together with action suggested or taken to comply with contract requirements.

#### 1.05 SUBMITTALS

- A. Material List: Submit a complete list of proposed materials to Resident for approval, including sealers, primers and stains.
1. Identify each material by manufacturer's name, product name and number, and type of surfaces to receive individual finishes.
- B. Certification: Provide each shipment of materials delivered to the job site, copies of an affidavit from the manufacturer, certifying that each classification or type of material furnished complies with specification requirements and approved materials list.
- C. Color Samples: Resident will provide color selections, with a schedule indicating locations for various colors.
1. Prepare color samples for each and every color. Submit color samples on heavy paper or chipboard in 8-1/2 in. x 11 in. size for approval. Prepare samples for plaster on fine grit sandpaper.
  2. Prepare samples of wood finish on actual wood species obtained from finish carpentry trade. Show all coats.
    - a. Approved samples will be used for judging the colors in finish work.
  3. Tint each coat a slightly different shade from finish coat.

D. Product Data:

1. Submit manufacturer's technical data sheets, published instructions and other relevant data.
2. Compile and maintain a listing of all paint colors with the factory batch number and formulation code for all paint used in the project. At the date of substantial completion, submit the complete list to the Owner for future maintenance reference.

#### 1.06 PRODUCT HANDLING

- A. Deliver materials in original containers with labels intact and seals unbroken. Identify each container with manufacturer's name, brand name, material type, stock number, color and application instructions, including reducing instructions, if permitted.
- B. Store materials in a protective structure separated from building under construction.
  1. Stack and store paint containers so that labels clearly display manufacturer's name, type of paint, color, batch number and instructions.
  2. Remove oily rags, waste, etc. from the building each night and take every precaution necessary to avoid spontaneous combustion.
- C. Mixing: To maximum extent practicable, factory mix each paint material to color, gloss and consistency for application directly from container.
  1. Follow manufacturer's instructions regarding thinning.
- D. Housekeeping: Maintain paint storage and mixing area neat and clean at all times. Take all precautions to prevent fires.
  1. Hang-out soiled, oily rags to dry. Store in covered metal containers.
- E. Non-Complying Materials: Remove all rejected and noncomplying materials from job site promptly.

#### 1.07 JOB CONDITIONS

##### A. Environmental Requirements:

1. Apply materials only during weather conditions favorable for producing first class work.
2. Do not apply finishes when temperature is below 50 degrees F. (10 degrees C).
3. Do not apply exterior paint or stain during damp or inclement weather, or until surfaces are thoroughly dry.

## **PART 2 PRODUCTS**

### 2.01 ACCEPTABLE MANUFACTURERS

- A. Paints and Coatings Materials: Except as otherwise specified in the Drawings, provide best quality materials manufactured by one of the following:
1. Ameritone.
  2. Benjamin Moore and Co.
  3. Bruning Paint Co.
  4. Glidden Coatings, Div. of SCM Corp.
  5. Grow Group - Devoe & Reynolds Co..
  6. ICI
  7. Pittsburgh Paints - PPG Industries, Inc.
  8. Pratt and Lambert, Inc. (P&L) - Basis of quality.
  9. Rust-Oleum.
  10. Sherwin-Williams Co.
- B. Paints and coatings listed in this Section without mention of the manufacturer are products of Sherwin Williams. Paints and coatings of other manufacturers that will produce the same finish and are of quality equal to those specified in the application schedule may be submitted to the Resident for approval.

#### 2.02 SPECIALTY MATERIALS

- A. Galvanizing Repair Paint: High zinc dust content paint complying with Military Specifications MIL-P-21035 (Ships). Galvicon, RPM, and ZRC coatings are also acceptable.

### PART 3 EXECUTION

#### 3.01 INSPECTION

- A. Examine surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution, permanence, and quality of work.
1. Inspect metal items specified under other Sections to be pretreated and or primed prior to finish painting under this Section.
  2. Notify Resident in writing if surfaces and conditions are not proper for producing best quality work.
- B. Do not apply paint or finish until conditions are satisfactory.
- C. Faulty sub-surfaces will not excuse defective painting work.

#### 3.02 GENERAL REQUIREMENTS

- A. Do not reduce or alter materials except as specified by the manufacturer. When more than one type of finish is specified for the same surface, the Resident shall select which finish is

applied. Sand and smooth all woodwork before painting. Metal surfaces shall be wire brushed thoroughly to remove rust and scale. Do not start painting, including priming coats, until the surface is sufficiently dry, in the case of plaster and gypsum board, and the moisture content does not to exceed 12 percent.

- B. Work shall be done by skilled mechanics, in workmanlike manner, under favorable weather conditions, or conditions suitable for production of good durable work. Mix and apply materials according to manufacturer's directions for the particular material being used and surface being coated. Apply each coat evenly, without spots, runs, sags, brush marks, or holidays. When more than one coat is specified, make the next to the last of a slightly lighter shade than the last.
- C. Application Methods: Machine spraying, rolling or hand brushing. Do not use the spraying method in locations where it may interfere with the work of other trades, the employees of the Owner, or the public; deface equipment or materials that cannot be protected from over spray; or inject paint spray into operating air conditioning systems; unless approved by the Resident after appropriate precautions have been taken.
- D. Minimum total dry film thickness: 5 mils.

### 3.03 PREPARATORY WORK

- A. Clean all greasy and oily metal surfaces with mineral spirits or turpentine and wipe dry before priming.
- B. Fill nail holes, cracks, open joints, and other defects after priming or first coat is dry and before second coat is applied.
- C. Allow all coats to dry thoroughly before applying succeeding coats and in all cases allow at least 24 hours between coats.
- D. Prime work not shop coated when delivered to the job or as soon as possible thereafter. Back prime woodwork erected against masonry or concrete before erection. Protect the tops and bottoms of all wood doors with a heavy coat of varnish after they have been fitted.
- E. Clean and sand all surfaces between coats with 150 Fine sandpaper.
- F. Remove electrical outlet and switch cover plates, finish hardware escutcheons and cover plates, air conditioning registers, and other finished items installed on surfaces to be painted during operations and replace afterwards. Protect items and surfaces which cannot be removed or that do not interfere with the painting, and leave clean and completely free of paint.

### 3.04 PREPARATION OF SURFACES

- A. Do not apply finish to wet, damp, dusty, dirty, finger marked, rough, unfinished, or defective surfaces. Repair imperfections as described for each type of material and fill with appropriate calking specified in Section 07920.

- B. Wood (opaque finish): Sandpaper smooth all exposed surfaces and remove dust. Fill open joints, cracks, nail holes and other imperfections using plastic wood or spackle after the primer or first coat has been applied. Seal knots and permissible pitch pockets with shellac or manufacturer's recommended knot sealer.
- C. Wood (transparent finish): Fill open joints, cracks, nail holes and unsightly imperfections using plastic wood colored to match stain color. Sand surfaces smooth.
- D. Plaster: Test for moisture content. Do not apply paint until moisture content is below 19%. Remove dirt, laitance, encrustations and other foreign matter.
  - 1. Patch imperfections to match adjacent surfaces.
- E. Concrete: Clean all surfaces, remove dirt, laitance, excess mortar, encrustations and foreign matter.
  - 1. Patch all cracks, holes, pits and imperfections which would be obvious in the finish work. Texture to match formed concrete.
- F. Unprimed Ferrous Metal: Clean surfaces of rust, mill scale, oil, grease, encrustations, and other foreign matter. Use rotary brushes and solvents, as necessary. Clean pits down to bright metal.
- G. Galvanized Metal: Remove all oil and foreign matter using Duosol as manufactured by Pratt and Lambert, Inc.
- H. Factory Finished Equipment Required to be Painted: Sand or etch finished surface to increase adherence of finish coats. After preparation, obtain approval of surface preparation before application of primer and finish.

### 3.05 WORKMANSHIP

#### A. General:

- 1. Mix paint thoroughly and break-up with paddles to smooth, uniform, good brushing consistency.
- 2. Apply all finishing work by skilled craftsmen, under direct supervision of a qualified foreman. Provide the highest quality workmanship for all work.
- 3. Apply paint materials strictly in accord with manufacturer's specifications, each coat uniformly with full coverage over all surfaces.
- 4. Do not apply paint or stains until floor surfaces are "broom-clean". Take all necessary precautions to allay dust particles.
- 5. Do not apply paint or stain materials until surfaces are clean, dry, smooth and adequately protected from dampness. Apply each coat smoothly, work out evenly and allow to dry thoroughly before applying the subsequent coat.
- 6. Sand enamels, varnishes, sanding sealers, and lacquers lightly and dust clean between coats. Avoid cross scratches and swirls.
- 7. After sealers are applied, verify that all suction and hot or burned spots are resealed



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- with same material to assure proper finished coats.
  8. Remove finish hardware, electrical switches and receptacle plates before painting. Reinstall after completion of finish painting.
    - a. Paint prime coated hinges to match adjacent surfaces.
    - b. Clean all plated and non-ferrous hardware and remove all paint smears.
  9. Apply finish coats smooth, free of brush marks, streaks, laps or pile-up of paints with all surfaces uniformly covered.
    - a. Finished metal surfaces shall be free of skips, voids or pinholes in any coat when tested with a low voltage detector.
  10. Leave all parts of moldings and ornaments clean and true to details without an excess of paint in corners and depressions.
  11. Make edges of paint adjoining other materials or colors clean and sharp with no overlapping.
  12. Apply black primer in glass rabbet of all sash before glazing.
  13. Refinish entire wall where portion of finish has been damaged or is not acceptable.
  14. Cleaning equipment: Do not use building plumbing fixtures for cleaning painting equipment. Keep all brush washes outside paint storage areas, and remove all brush washes from job site daily.
  15. Follow all applicable Federal and State Regulations on health and safety and regulations regarding hazardous waste disposal off-site.
- B. Application:
1. Apply paint materials with suitable brushes or rollers.
    - a. Rate of application: Do not exceed paint manufacturers recommendation for the surface involved, less 10% allowance for losses.
    - b. Maintain brushes, rollers and spraying equipment clean, dry, free from contaminants and suitable for the required finish.
    - c. Apply stain by brush or roller. Spray only when approved by Owner.
  2. Brush work: Except on gypsum board, and except as otherwise specified, apply first coat of each paint material by hand brushing.
  3. Roller work: Second and third coats on walls and ceilings may be applied by roller.
  4. Spray gun work: Use spray equipment only when specified or approved by Owner.
  5. Protection: Provide all drop cloths, masking, and other protection necessary to prevent damage to adjacent surfaces. When protection is removed to permit access by other trades, replace same to original condition, and assume full responsibility for any and all damage.
    - a. Provide barricades, or otherwise isolate freshly painted surfaces from damage by other trades. Remove all implements of work at completion of painting operations.

3.06 BACKPAINTING AND PRIMING

A. Back Painting: Apply one heavy coating to all surfaces of all wood coming in contact with plaster, concrete, or masonry. Apply uniformly and with full coverage before pieces are set in place. Allow to dry before handling.

1. Use boiled linseed oil for transparent finish work. Use prime coat specified for exposed surfaces for other work.

B. Priming:

1. Where transparent finishes are scheduled, do not apply primer to sight-exposed surfaces.
2. Prime coat all metal surfaces scheduled to be painted, and have not been shop primed.
3. Mortises in exterior wood doors: Prime all hardware mortises before the finish hardware is installed.
4. Refer to individual headings for priming of specific materials.

3.07 MISCELLANEOUS PAINTING

A. Gutter Linings:

1. Clean surfaces in accord with coating manufacturer's recommendation.
2. Apply one primer coat of Mono-Zinc and two topcoats of Mono-Gard on gutter linings. Apply uniformly at a rate to provide not less than 3 (prime coat) and 6 (topcoats) mils dry film thickness (each coat).

B. Doors:

1. Metal doors and frames:
  - a. Paint both faces and all edges of metal doors and sight exposed surfaces of metal frames.
3. All doors:
  - a. Finish edges of doors to match the color of the door face on the side of the room into which it opens, or from which it is viewed.

3.08 TOUCH-UP WORK

A. Touch-up abraded, stained or otherwise disfigured portion or re-finish as necessary to produce best quality work.

3.09 APPLICATION TO EXTERIOR SURFACES

A. Stucco and Masonry: Unless otherwise indicated in the Drawings, use the following:

1. First coat: SW ProMar Interior/Exterior Block filler.
  2. Second and third coats: A-100 Flat Exterior Acrylic Latex Paint.
- B. Ferrous Metals, Except Galvanized Steel: Unless otherwise indicated in the Drawings, use the following:
1. Option 1:
    - a. First coat: Kem Kromik Universal Metal Primer to a minimum dry film thickness (DTF) of 4.0 mils
    - b. Second and third coats: Metalatex Semi-gloss Enamel to a minimum dry film thickness (DTF) of 3.0 mils each coat.
  2. Option 2:
    - a. First coat: Kem Kromik Universal Metal Primer, to a minimum dry film thickness (DTF) of 4.0 mils.
    - b. Second and third coats: DTM Acrylic Coating, B66-200 series, semi-gloss, to a minimum dry film thickness (DTF) of 3.0 mils each coat.
  3. Option 3:
    - a. Sandblast surface to be painted as defined by Structural Steel Painting Council (SSPC)-SP6 (Commercial Blast).
    - b. First coat: Zinc CLAD II HS primer, to a minimum dry film thickness (DFT) of 4.0 mils.
    - c. Second and third coats: DTM Acrylic Coating, B66-200 series, semi-gloss; to a minimum dry film thickness (DFT) of 3.0 mils each coat.
- C. Metal Railings and Handrails, use the following:
1. Option 1:
    - a. First coat: Zinc Clad IV primer, to a minimum dry film thickness (DTF) of 4.0 mils.
    - b. Second and third coats: Acrolon 218, semi-gloss, to a minimum dry film thickness (DTF) of 3.0 mils each coat.
  2. Option 2:
    - a. First coat: Zinc Clad II primer, to a minimum dry film thickness (DTF) of 4.0 mils.
    - b. Barrier coat: ProCryl Universal Primer.
    - b. Second and third coats: Metalastic DTM, semi-gloss, to a minimum dry film thickness (DTF) of 3.0 mils each coat.

- D. Galvanized Steel, and Non-Ferrous Metals: Unless otherwise indicated in the Drawings, use the following:
  - 1. First coat: SW Galvanized Iron Primer.
  - 2. Second and third coats: Metalatex Semi-gloss Enamel.
- E. Wood, Opaque Color Finish: Unless otherwise indicated in the Drawings, use the following:
  - 1. First coat: A-100 Exterior Wood Primer
  - 2. Second and third coats: A-100 Gloss or Satin Latex House & Trim.
- F. Wood, Stained or Clear Finish: Unless otherwise indicated in the Drawings, use the following:
  - 1. Option 1:
    - a. One coat: Semi-Transparent Wood Preservative Stain.
  - 2. Option 2:
    - a. First coat: Exterior Varnish
    - b. Second and third coats: Exterior Varnish (Gloss)
  - 3. At Owner's option, different finish systems of equivalent cost may be selected.
  - 4. At Owner's option, add paste filler on open grained woods.

### 3.10 APPLICATION TO INTERIOR SURFACES

- A. Plaster, Exposed Concrete and Masonry: Unless otherwise indicated in the Drawings, use the following:
  - 1. First coat: SW ProMar 200 Wall Primer.
  - 2. Second and third coats: Pro-Mar 400 Latex Flat Wall Paint.
- B. Ferrous Metals, Except Galvanized Steel: Unless otherwise indicated in the Drawings, use the following:
  - 1. First coat: Kem Kromik Universal Primer to a minimum dry film thickness (DFT) of 4.0 mils.
  - 2. Second and third coats: Metalatex Semi-gloss Enamel to a minimum dry film thickness (DFT) of 3.0 mils each coat.
- C. Galvanized Steel and Non-Ferrous Metals: Unless otherwise indicated in the Drawings, use the following:
  - 1. First coat: S.W. Galvanized Iron Primer.
  - 2. Second and third coats: Metalatex Latex Semi-gloss Enamel.

3.11 PIPE, FITTINGS, EQUIPMENT, ACCESSORIES

- A. Same coating as specified for metals above.

3.12 CLEANING

- A. Upon completion of the work, remove staging, scaffolding and containers from the site. Remove paint spots, oil or stains from adjacent surfaces and leave the entire job clean and acceptable to the Resident.

END OF SECTION