

Grandfather RD Office Remodel

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## SECTION 01010 - SUMMARY OF WORK

### PART 1 - GENERAL

- 1.01 LOCATION: This project is located at the Grandfather Ranger District Office, Nantahala, NF, 109 E. Lawing Drive, Nebo NC.
- 1.02 DESCRIPTION OF WORK: The principal features of the work to be performed on site under these specifications:
- A. Overview: Office remodeling including wall demolition and construction and all associated work of but not limited to walls, painting, texturing, electrical, IT, flooring, doors and hardware, ceilings, HVAC, and lighting.
  - B. Demolition:
    - 1. Demolition and removal of designated walls.
    - 2. Demolition and removal electrical circuits and fixtures.
    - 3. Demolition and removal IT boxes.
    - 4. Demolition and removal Flooring.
    - 5. Demolition and removal lighting fixtures.
    - 6. Demolition and removal doors and hardware.
  - B. Construction:
    - 1. Designated new walls.
    - 2. Designated new flooring.
    - 3. Designated new ceilings.
    - 4. Designated new lighting and electrical.
    - 5. Designated minor HVAC extensions.
- 1.03 PERFORMANCE SCHEDULE: All work shall be completed in accordance of the contract with in 90 calendar days of Notice to Proceed for Base Bid Items. Optional Bid Items, time shall be added as shown in the of Items.
- 1.04 STANDARDS AND CODES:
- A. All work shall comply with latest edition of applicable standards and codes including the following and as listed elsewhere in specifications and drawings.
    - ACI American Concrete Institute
    - ASA American Standards Association
    - ASTM American Society of Testing Materials
    - ANSI C2, American National Standards Institute
    - NECA Standards for Installation
    - NEMA Standards for Materials and Products
    - NFPA National Fire Protection Association
    - NFPA Life Safety Code NFPA 101
    - OSHA Occupational Safety and Health Act
    - UL United Laboratories
    - IBC International Building Code
    - IMC International Mechanical Code
    - IPC International Plumbing Code
- 1.05 UTILITIES: Government supplied bathrooms, water and electricity will be available for construction use.
- 1.06 CONTRACTOR OFFICE: The contractor may have one self-contained trailer at the project site for an office.

### PART 2 - PRODUCTS (None)

## PART 3 - EXECUTION

- 3.01 COORDINATION: The Contractor shall coordinate with Forest Service Personnel and/or other contractors on site.
- 3.02 HOURS OF WORK: Hours of work shall be between the hours of 7:00 am and 5:00 pm Monday through Sunday. Any deviation from these hours shall be approved by the CO in advance. The Contractor shall keep the CO informed daily of the intent of scheduling work for the purposes of coordinating with the inspectors and for site access.
- 3.03 MANUFACTURER'S INSTRUCTION: Contractor shall follow with strict compliance to the manufacturer's instructions for installation for all items.
- 3.04 CLEANLINESS
- A. All work shall be conducted in a neat, clean, professional manner.
  - B. During and after completion of Construction:
    - 1. All debris and waste including but not limited to concrete, plastic, pipe, wood, cartons, rubbish, and surplus materials shall be cleaned up by the end of the day as work progresses and removed from the owner's property except where approved temporary storage areas are for short duration.
    - 2. Tarps or other devices shall be utilized to protect any finishes, equipment, structures or other on-site items.
    - 3. All waste and excess materials shall become the property of the Contractor and shall be removed from the site unless noted otherwise.
- 3.05 WORKMAN LIKE MANNER: COR shall be the sole judge of workmen like manner, including proper construction techniques. As a basis for the judgment, the COR will use standard construction practices.
- 3.06 MATERIALS
- A. All materials and equipment furnished for installation on this project shall be new and in strict accordance with Contract Documents unless noted. All packaged materials shall be delivered in their original containers which shall show the manufacturer's name and the identifying designation as to size, quality, etc. Materials or equipment judged as "damaged" by the CO shall be removed from the site.
  - B. Storage: The Contractor shall be responsible for protecting all equipment and supplies intended for use in the project.
- 3.07 Protections:
- A. Provide temporary barricades and other forms of protection as required to protect Forest Service personnel and public from injury due to construction work. Locations of barricades shall be approved by the CO.
  - B. Remove protections at completion of work.
- 3.08 UTILITIES
- A. Contractor shall be responsible for locating all utilities within the work areas.

END OF SECTION

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.01 REQUIREMENTS

- A. It will be the Contractor's responsibility to submit all items with such promptness as to cause no delay in the work. Approvals must be obtained before starting work which involves the item. Contractor shall allow a minimum of 10 calendar days for processing of submittals by the Government.
- B. The following submittal are required following award of contract for review and/or approval pursuant to contract provisions.

Item Description	Copies Required	References
1. Cost breakdown schedule listing main types of work and totaling amount of contract.	1	FAR 52.232-5
2. Construction Schedule	1	
3. Designated Authorities and Responsibilities of key personnel	1	FAR 52.236-6
4. As listed in pertinent sections below and here in listed: <ul style="list-style-type: none"><li>a. Wood treatment, Wood grades, Mill work products, Doors, Door Frames and Door Hardware, Gypsum board, Resilient and Carpet Flooring, Paint type and colors, Lighting Fixtures, Electrical Conductors, and other listed items.</li></ul>		

1.02 MANUFACTURER'S LITERATURE AND SHOP DRAWINGS

- A. Submit (3) copies to the CO for approval on the items required herein. Literature which is not marked or otherwise designated to show the exact model, size, etc., which the Contractor proposed to use, will be returned by the CO "without action." Circle or check items on submittals. Highlighter pens may print black or not at all when copied. Materials which do not match the specified materials shall have a submittal supplied.
- B. Information must be adequate to determine compliance with specifications.
- C. Submit (5) copies of materials that cannot reasonably be copied on typical copy machines. One (1) copy of all submittals will be returned to the Contractor.
- D. Submittals which are received from sources other than through Contractor's office will be returned by the CO "without action".

PART 2 – PRODUCTS (none)

PART 3 – EXECUTION (none)

END OF SECTION

SECTION 01710 - CLEAN UP AND DISPOSAL

PART 1 - GENERAL

1.01 CLEAN UP

- A. The contractor shall keep the work site free from accumulation of waste materials and rubbish resulting from the work.
- B. Before final acceptance of the project by the Government, the contractor shall remove from Government land all waste materials and rubbish, resulting from this work.

1.02 DISPOSAL

A. Trash and Garbage:

- 1. Haul to State-approved sanitary landfill.

PART 2 – PRODUCTS (none)

PART 3 – EXECUTION (none)

END OF SECTION

## SECTION 02070 - DEMOLITION

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Extent of demolition work is indicated on drawings in work areas shown and notes. Demolition requires the removal and subsequent off-site disposal of concrete, electrical materials, doors and hardware, ceiling systems and other miscellaneous materials.

#### 1.02 JOB CONDITIONS

- A. Condition of Structures: The Government assumes no responsibility for actual condition of items or structures to be demolished.
- B. Protections: Reference Section 01010 and FAR 52.236-9.
- C. Damages: Promptly repair damages caused to adjacent facilities by demolition work at no cost to Government.
- D. Environmental Controls:
  - 1. Comply with governing regulations pertaining to environmental protection and OSHA.

### PART 2 - PRODUCTS (None)

### PART 3 - EXECUTION

3.01 INSPECTION: Prior to the commencement of demolition work, inspect areas in which work is to be performed.

#### 3.02 DEMOLITION:

- A. Perform demolition work in a systematic manner. Use such methods as required to complete work indicated on Drawings in accordance with demolition schedule and governing regulations.
- B. Verify extent of site demolition with CO.

#### 3.03 CLEAN-UP AND REPAIR

- A. Upon completion of demolition work, remove tools, equipment and demolished materials from site.
- B. Repair demolition performed in excess of that required. Repairs shall be started within 24 hours and completed as soon as practicable unless approved by the CO.
  - A. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.

#### 3.04 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove debris, rubbish and other materials resulting from demolition operations from building site. Transport and legally dispose of materials off site.
  - 1. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling and protection against exposure or environmental pollution.

END OF SECTION

## SECTION 06110 ROUGH CARPENTRY

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Definition: Rough carpentry includes carpentry work not specified as part of other sections and which is generally not exposed, except as otherwise indicated.
- B. Types of work in this section include rough carpentry for:
  - Wood framing.
  - Wood grounds, nailers and blocking.
  - Wood furring.
  - Sheathing.
  - Draft stops

#### 1.02 QUALITY CONTROL

- A. All lumber and plywood stamped or certified showing compliance with these specifications.

#### 1.03 SUBMITTALS

- A. Submit the following:
  - 1. Wood treatment data including treatment plant's certification of compliance with indicated requirements.

#### 1.04 DELIVERY AND STORAGE OF MATERIALS

- A. Deliver to the site in undamaged condition.
- B. Pile off ground in neat, regularly shaped stacks.
- C. Protect with waterproof coverings.
- D. Pile lumber with stickers if to be left unused more than 30 days.

### PART 2 - PRODUCTS

#### 2.01 LUMBER - GENERAL

- A. Manufacture lumber, S4S and grade stamped, to comply with PS20 and applicable grading rules of inspection agencies certified by ALSC's Board of Review.
- B. Provide seasoned lumber with 19 percent moisture content at time of dressing and shipment, for sizes 2" or less in thickness.
- C. For exposed lumber, apply grade stamps to ends or back of each piece or omit grade stamps entirely and issue certificate of grade compliance.

#### 2.02 DIMENSION LUMBER

- A. Light-framing (2 inch - 4 inch thick, 2 inch - 4 inch wide):
  - 1. Standard No. 3 grade, any species graded under WWPA or WCLIB rules.
- B. Studs (2 inch - 4 inch thick, 2 inch -6 inch wide, 10 foot and shorter):
  - 1. "Stud" or No. 3 structural light framing grade, any species graded under WWPA or WCLIB rules.
- C. Structural light framing (2 inch - 4 inch thick, 2 inch - 4 inch wide):

1. No. 2 grade, Douglas-fir, larch graded under WWPA or WCLIB Rules.

D. Structural framing (2 inch - 4 inch thick, 5 inch, and wider):

1. No. 2 grade, Douglas-fir, larch graded under WWPA or WCLIB Rules.

E. Lumber for miscellaneous uses:

1. Unless otherwise indicated, provide standard grade lumber for support of other work, including cant strips, bucks, nailers, blocking, furring, grounds, stripping and similar members.
2. Fasteners: Provide nail size, type, and at locations recommended by AITC for the thickness and type used.

## 2.03 BOARDS

A. Boards - (1 inch thick by any widths):

1. No. 4 common grade any species WWPA or WCLIB rules.

## 2.04 CONSTRUCTION PANEL

A. General:

1. Comply with PS 1 "U.S. Product Standard for Construction and Industrial Plywood" for plywood panels and, for products not manufactured under PS 1 provisions, with American Plywood Association (APA) "Performance Standard and Policies for Structural-Use Panels," Form No. E445.
2. APA rated sheathing includes plywood, waferboard, oriented strand board, composite, and structural particleboard.
3. Factory-mark each construction panel with APA trademark evidencing compliance with grade requirements.
4. Where construction panels will be used for concealed types of applications, provide APA Performance-Rated Panels complying with requirements indicated for grade designation, span rating, exposure durability classification, edge detail (where applicable) and thickness.

## 2.05 MISCELLANEOUS MATERIALS

A. Fasteners and Anchorages:

1. Provide size, type, material and finish as indicated and as recommended by applicable standards, complying with applicable Federal Specifications for nails, staples, screws, bolts, nuts, washers and anchoring devices.
2. Provide metal hangers and framing anchors of the size and type recommended by the manufacturer for each use including recommended nails.

B. Adhesives:

1. Select from the following for the conditions of service, i.e., dry-use (interior, heated space), or wet-use (exterior or unheated space).
  - a. Dry-use adhesives, casein type.
    - (1) ASTM D3024-78, water resistant.
  - b. Wet-use adhesives.
    - (1) ASTM D2559-76.



## 2.06 WOOD TREATMENT BY PRESSURE PROCESS

- A. Preservative pressure treat lumber and plywood with water-borne preservatives to comply with AWPA C2 and C9, respectively, and with requirements indicated below:
  - 1. Wood for Above-Ground Use: AWPB LP-2.
- B. Treat cants, nailers, blocking, stripping and similar items in conjunction with roofing, flashing, vapor barriers, and water proofing.
- C. Treat sills, sleepers, blocking, furring, stripping and similar items in direct contact with masonry or concrete.

## PART 3 - EXECUTION

### 3.01 INSTALLATION

- A. General:
  - 1. Discard units of material with defects which might impair quality of work, and units which are too small to use in fabricating work with minimum joints or optimum joint arrangement.
  - 2. Set carpentry work to required levels and lines, with members plumb and true to line and cut and fitted.
  - 3. Securely attach carpentry work to substrate by anchoring and fastening as shown and as required by recognized standards.
  - 4. Countersink nail heads on exposed carpentry work and fill holes.
  - 5. Use common wire nails except as otherwise indicated. Use finishing nails for finish work.
    - a. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials.
    - b. Make tight connections between members.
    - c. Install fasteners without splitting of wood; predrill as required.

### 3.02 WOOD FRAMING (GENERAL)

- A. Provide framing members of sizes and on spacings shown, and frame openings as shown, or if not shown, comply with recommendations of "Manual for House Framing" of National Forest Products Association (N.F.P.A.)
  - 1. Do not splice structural members between supports.
- B. Anchor and nail as shown, and to comply with "Recommended Nailing Schedule" of "Manual for House Framing", "National Design Specifications for Wood Construction" published by N.F.P.A., and American Plywood Association, (APA) "Design/Construction Guide, Residential and Commercial."
- C. Accurately set members to required lines and levels and rigidly secure in place.
- D. Use framing anchors where specified nailing not possible, or where noted on drawings.
- E. Use preservative treated material for sill plates and elsewhere as noted on the drawings.
- F. Anchor sill plates to masonry walls with anchor bolts spaced maximum of 6 feet and maximum of 1 foot from corners and openings.
- G. Install sill sealer under sill plate where shown on drawings.
- H. Frame members for the passage of ducts and pipes but do not cut, notch, or bore except as specified elsewhere or approved by the CO.

### 3.03 STUD FRAMING

- A. Studs shall be 2 x 4s, 16-inch o.c., as shown on the drawings.
- B. Provide double bottom plate for cable and wall framing or as indicated on the drawings.
- C. Anchor blocking or plates abutting masonry with anchor bolts, expansion bolts, or power-activated fasteners 4 feet on center and maximum 12 inches from ends. Minimum of three fasteners per piece, in pieces over 4 feet long.

### 3.04 LAMINATED BEAMS (MICROLAMs)

- A. Install beams in accordance with manufacturer's recommendations and as shown on the drawings.
- B. Nails installed parallel to the glue line on the narrow face shall not be closer than 4 inches for 10d common nails and 3 inches for 8d common nails. Nails installed perpendicular to the glue lines on the wide face shall be installed in accordance with the code.

END OF SECTION

## SECTION 06210 INTERIOR FINISH CARPENTRY

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

##### A. Definition:

1. Finish carpentry includes carpentry work which is exposed to view, is nonstructural, and which is not specified as part of other sections.

##### B. Types of finish carpentry work in this section include: Interior running, standing trim and Molding.

#### 1.02 QUALITY CONTROL

- ##### A. If materials are not stamped or otherwise marked showing compliance with these specifications, proof of compliance shall be furnished.

#### 1.03 PRODUCT HANDLING

##### A. Do not deliver millwork until the building is closed in and wet operations are completed and dry.

##### B. Protect millwork against dampness during and after delivery.

##### C. Store out of the way of work in progress, in well-ventilated room, and where not exposed to extreme changes of temperature and humidity.

#### 1.04 MISCELLANEOUS ITEMS

##### A. Finish carpentry work and miscellaneous items and their related components which are to be furnished or installed under this section are not necessarily individually described.

##### B. The most important features and those requiring detail description are mentioned.

##### C. Finish carpentry work and miscellaneous items not mentioned or described shall be furnished or installed in accordance with the intent of the drawings and specifications and as required to complete the work.

### PART 2 - PRODUCTS

#### 2.01 WOOD PRODUCT QUALITY STANDARDS

##### A. Softwood Lumber Standards:

1. Comply with PS 20 and with applicable grading rules of the respective grading and inspecting agency for the species and product indicated.

##### B. Woodworking Standard:

1. Where indicated for a specific product comply with specified provision of the following:
  - a. Architectural Woodwork Institute (AWI) "Quality Standards."

#### 2.02 MATERIALS

##### A. General:

1. Nominal sizes are indicated, except as shown by detailed dimensions.
2. Provide dressed or worked and dressed lumber, as applicable, manufactured to the actual sizes as required by PS 20 or to actual sizes and patterns as shown, unless otherwise indicated.

B. Moisture Content of Softwood Lumber:

1. Provide seasoned (KD) lumber having a moisture content from time of manufacture until time of installation not greater than values required by the applicable grading rules of the respective grading and inspecting agency for the species and product indicated.

C. Lumber for Transparent Finish (Stained or Clear):

1. Use pieces made of solid lumber stock.

D. Lumber for Painted Finish:

1. At Contractor's option, use pieces which are either glued-up lumber or made of solid lumber stock.

E. Embossed Vinyl Finish on Wood:

1. Prefinished wood with embossed vinyl finish will not be allowed under this contract.

2.03 STANDING AND RUNNING TRIM FOR TRANSPARENT FINISH:

A. Select and Finish softwoods shall be the species and grades as graded by the Western Wood Products Association as follows:

1. Idaho White Pine - Supreme.
2. Douglas-fir, Hemlock, or Ponderosa Pine - B and BTR.
3. Western Red Cedar - A Grade.
4. Redwood - California Redwood Association - Clear Grade.

2.04 STANDING AND RUNNING TRIM FOR PAINTED FINISH:

A. Any western softwood species graded and inspected by WWPA complying with following requirements:

1. Idaho white pine - Choice.
2. Douglas-fir, hemlock, or ponderosa pine - C Select.

2.05 MISCELLANEOUS MATERIALS

A. Fasteners and Anchorages:

1. Provide nails, screws and other anchoring devices of the type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible, and complying with applicable Federal Specifications.

2.06 GLUE

A. Select from the following for the conditions of service, i.e., dry-use (interior, heated space), or wet-use (exterior or unheated space).

1. Dry-use adhesives, casein type.
  - a. Federal specification MMM-A-125c, type II, water and mold resistant.
  - b. ASTM D3024-78, water resistant.
2. Wet-use adhesives
  - a. Federal specification MMM-A-188c, type II, urea-resin type.
  - b. ASTM D 2559-76.

## PART 3 - EXECUTION

### 3.01 INSTALLATION

#### A. General:

1. Discard units of material which are unsound, warped, bowed, twisted, improperly treated, not adequately seasoned or too small to fabricate work with minimum of joints or optimum jointing arrangements, or which are of defective manufacturer with respect to surfaces, sizes or patterns.

B. Install the work plumb, level, true and straight with no distortions.

C. Shim as required using concealed shims. Install to a tolerance of 1/8 inch in 8 foot 0 inch for plumb and level countertops; and with 1/16 inch maximum offset in flush adjoining 1/8 inch maximum offsets in revealed adjoining surfaces.

D. Scribe and cut work to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.

### 3.02 STANDING AND RUNNING TRIM

A. Install with minimum number of joints possible, using full-length pieces (from maximum lengths of lumber available) to the greatest extent possible.

B. Stagger joints in adjacent and related members.

C. Cope at returns, miter at corners, to produce tight fitting joints with full surface contact throughout length of joint.

D. Use scarf joints for end-to-end joints.

E. Anchor finish carpentry work to anchorage devices or blocking built-in or directly attached to substrates.

F. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation.

G. Except where prefinished matching fastener heads are required, use fine finishing nails for exposed nailings, countersunk and filled flush with finished surface, and matching final finish where transparent is indicated.

END OF SECTION

## SECTION 08110 METAL DOORS AND FRAMES

### PART 1 - GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE: Finish Hardware -Section 08710

### 1.02 QUALITY ASSURANCE

- A. Provide doors and frames complying with Steel Door Institute "Recommended Specifications: Standard Steel Doors and Frames" (SDI-100) and as herein specified.

### 1.03 SUBMITTALS

#### A. Shop Drawings:

1. Submit shop drawings covering each type of door and frame, frame conditions, and complete anchorage details, supplemented by suitable schedules covering doors and frames.
2. Show glass and louver opening sizes and locations in doors.
3. Locate and detail field splice joints and indicate complete instructions for making field splices on frames too large to ship in one piece.
4. Detail joints required to accommodate expansion joint movement.

### 1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle in manner to prevent damage and deterioration.
- B. Follow special storage and handling requirements of manufacturer.
- C. Protect exposed finish surfaces of prefinished items with masking tape.

### PART 2 - PRODUCTS

#### 2.01 STANDARD STEEL DOOR: N/A

~~A. Exterior Doors: SDI 100, Level 3 (1 3/4 inch heavy duty), Model I (full flush), minimum 16-gage face, galvanized.~~

~~B. Subject to compliance with requirements, manufacturers offering steel doors and frames which may be incorporated in the work include, but are not limited to, the following:~~

~~Ceco Corp.~~

~~Curries Manufacturing, Inc.~~

~~Fenestra Corp.~~

~~Pioneer Builders Products Corp.; Div. of Core Industries, Inc.~~

~~Republic Builders Products Corp.; Subs. Republic Steel.~~

#### 2.02 STANDARD STEEL FRAMES:

- A. Provide metal frames for doors, sidelights and interior windows, of types and styles as shown on drawings and schedules.
- B. Conceal fastenings, unless otherwise indicated. Fabricate frames of minimum 16-gage cold-rolled furniture steel.
- C. Fabricate frames with mitered corners, welded construction for exterior applications and knocked-down for field assembly at interior applications.
- D. Form exterior frames of hot-dip galvanized steel.

E. Door Silencers:

1. Except on weather stripped frames, drill stops to receive three silencers on strike jambs of single-swing frames and two silencers on heads of double-swing frames.

F. Glazing Stops:

1. Minimum 20-gauge steel, secured with countersunk sheet metal screws at minimum 12-inch intervals.

2.03 ANCHORS

- A. Use anchor type required to provide positive fastening to adjacent construction.

2.04 PREPARATION FOR FINISH HARDWARE

A. Prepare doors and frames to receive hardware:

1. Hardware supplier shall furnish hollow metal manufacturer's approved hardware schedule, hardware templates, and samples of physical hardware where necessary to ensure correct fitting and installation.
2. Preparation includes sinkages and cut-outs for mortise and concealed hardware.

B. Provide reinforcements for both concealed and surface applied hardware:

1. Drill and tap mortise reinforcements at factory, using templates.
2. Install reinforcements with concealed connections designed to develop full strength of reinforcements.

2.05 FINISH: As shown on the drawings.

PART 3 – EXECUTION

3.01 INSTALLATION:

- A. Fit doors accurately in frames, within clearances specified in SDI-100.
- B. Apply hardware in accordance with hardware manufacturer's templates and instructions.
- C. Adjust operable parts for correct function.

3.02 PLACING FRAMES: N/A

3.03 PRIME COAT TOUCH-UP

- A. Immediately after erection, areas where prime coat has been damaged shall be sanded smooth and touched up with same primer as applied at shop.
- B. Remove rust before above specified touch-up is applied.
- C. Touch-up shall not be obvious.

3.04 PROTECTION: Protect installed doors against damage from other construction work.

END OF SECTION

## SECTION 08210 – DOORS AND FRAMES

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Extent and location of each type of door is shown on drawings and in schedules.

#### 1.02 QUALITY ASSURANCE

##### A. Quality Standards:

- 1. Provide wood flush doors complying with the following standards:

- a. ANSI/NWMA I.S.1: "Industry Standard for Wood Flush Doors", published by National Woodwork Manufacturers Association (NWMA).

##### B. Fire-Rated Wood Doors: N/A

- ~~1. Provide wood doors which are identical in materials and construction to units tested in door and frame assemblies per ASTM E 152 and which are labeled and listed for the ratings indicated by U.L., Warnock Hersey or other testing and inspection agency acceptable to authorities having jurisdiction.~~

##### C. Manufacturer:

- 1. Obtain doors from a single manufacturer to ensure uniformity in quality of appearance and construction, unless otherwise indicated.
- 2. See drawings Door Schedule.

#### 1.03 SUBMITTALS

##### A. Product Data:

- 1. Submit door manufacturer's product data for each type of door, including details of core and edge construction, trim for openings and louvers, and finishing specifications for doors to receive factory finish which does not match the specified door in the drawings.

### PART 2 - PRODUCTS

#### 2.01 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to the following:

Jeld-Wen.

#### 2.02 INTERIOR FLUSH DOORS AND FRAMES

##### A. Solid Core Doors and frames

- 1. Comply with the following requirements:

- a. 6-Panel door.
- b. STC (sound ratings) 32 or greater door.
- c. Solid core door.
- d. Door requiring a wood frame shall come from the factory with wood frame as specified in Door Schedule.

### PART 3 - EXECUTION



### 3.01 INSPECTION

- A. Require installer to examine door frames, after their installation, and doors, prior to their hanging, for the following purposes:
  - 1. To verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with plumb jambs and level heads.
  - 2. To verify that doors are free of defects that could cause their rejection.
- B. Do not allow installer to proceed with installation until unsatisfactory conditions have been corrected.

### 3.02 DELIVERY, STORAGE, AND HANDLING

- A. Protect wood doors and frames during transit, storage and handling to prevent damage, soiling and deterioration.
- B. Comply with requirements of referenced ANSI standard and recommendations of NWMA pamphlet "How to Store, Handle, Finish, Install, and Maintain Wood Doors," as well as manufacturer's instructions.

### 3.03 INSTALLATION

- A. Condition doors to average prevailing humidity in installation area to hanging.
- B. Hardware:
  - 1. For installation see Section 08710 "Finish Hardware", of these specifications and drawings.
- C. Install doors to comply with manufacturer's instructions and referenced AWI standard and as indicated.

### 3.04 ADJUST AND CLEAN

- A. Operation:
  - 1. Rehang or replace doors which do not swing or operate freely.
- B. Finished Doors:
  - 1. Refinish or replace doors damaged during installation.

END OF SECTION

## SECTION 08710 FINISH HARDWARE

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Description: "Finish Hardware" includes items known commercially as finish hardware which are required for swing and sliding.
- B. Extent of finish hardware required is indicated on drawings and in schedules.
- C. Types of finish hardware required include the following:

- Hinges
- Lock Cylinders and Keys
- Lock and Latch Sets
- Push/Pull Units
- Closers
- Thresholds

#### 1.02 QUALITY ASSURANCE

- A. Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.

#### 1.03 SUBMITTALS

- A. Submit proposed hardware that is not listed on drawings.
- B. Submittal shall include manufacturer's catalogs, certification, or other material which proves compliance with these specifications.
- C. Samples showing function, finish, and design of proposed items shall be submitted upon request of CO.

#### 1.04 PRODUCT HANDLING

- A. Hardware shall be delivered and stored in packages that permit handling without damage to the contents.
- B. Each package shall be marked to permit easy identification and shall contain fastening and installation instructions.

#### 1.05 REFERENCE SPECIFICATIONS

- A. ANSI/BHMA designations used elsewhere in this section or in schedules to describe hardware items or to define quality or functions are derived from the following standards. Provide products complying with these standards and requirements specified elsewhere in this section.

- Butts and Hinges: ANSI A156.1 (BHMA 101)
- Locks and Lock Trim: ANSI A156.2 (BHMA 601)
- Exit Devices: ANSI A156.3 (BHMA 701)
- Door Controls - Closers: ANSI A156.4 (BHMA 301)
- Auxiliary Locks: ANSI A156.5 (BHMA 501)
- Template Hinge Dimensions: ANSI A156.7
- Mortise Locks and Latches: ANSI A156.13 (BHMA 621)
- Materials and Finishes: ANSI A156.18 (BHMA 1301)

B. Federal Specifications:

1. Locks and Door Trim - FF-H-106C/Gen., 106/1, 106/2, 106/3.
2. Shelf and Miscellaneous Hardware - FF-H-111C.
3. Hinges - FF-H-116E.
4. Door Closers - FF-H-121D.

PART 2 - PRODUCTS

2.01 SCHEDULED HARDWARE: As shown on the drawings.

2.02 MATERIALS AND FABRICATION

A. General:

1. Hand of door: Drawings show direction of slide, swing or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.

B. Fasteners: Manufacturer's recommendations.

2.03 HINGES

A. Hinge Pins:

1. Except as otherwise indicated, provide hinge pins as follows:
  - a. Steel Hinges: Steel pins.
  - b. Non-ferrous Hinges: Stainless steel pins.
  - c. Exterior Doors: Non-removable pins.
  - d. Number of hinges: Provide number of hinges indicated but not less than three hinges for door leaf for doors 90" or less in height.

2.04 LOCK CYLINDERS AND KEYING: LOCKS: As shown on drawings.

2.05 PUSH/PULL UNITS

A. As shown on the drawings or approved equal.

B. Exposed Fasteners: Provide manufacturer's standard exposed fasteners for installation; through-bolted for matched pairs, but not for single units.

2.06 CLOSERS AND DOOR CONTROL DEVICES: As shown on drawings or approved equal.

2.07 DOOR TRIM UNITS

A. Fasteners:

1. Provide manufacturer's standard exposed fasteners for door trim units (kick plates, edge trim, and similar units); either machine screws or self-tapping screw.

PART 3 - GENERAL

3.01 PREPARATION

A. Doors, frames, and hardware shall be examined for damage, defects, and suitability for the intended use.

B. Any part or item found damaged, defective, or inadequate shall be repaired before installation, or shall be replaced with good material.

### 3.02 INSTALLATION

#### A. Mounting Heights:

1. Heights shall match existing frame for hinges, door latches, and dead locks. If matching is indeterminate, meet the following requirements. Heights given are centerline heights up from the finished floor unless otherwise stated; heights given "Number to Number" indicate that all shall be at one height within the limits given. Heights of items not listed here shall be in accordance with recommendations of the Door and Hardware Institute, Rosslyn, Virginia.

#### INCHES

Bottom hinge	10 to 13 from floor
Top hinge	6 to 8 down from head
Intermediate hinges	Equally spaced
Door knob	36 to 38 from floor
Panic device cross bar	33 to 36 from floor
Cylinder dead lock	52 from floor
Push plate	45 to 48 from floor
Door pull	42 to 45 from floor

- B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work specified in the Section 09900 - "Painting". Do not install surface-mounted items until finishes have been completed on the substrate.

Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

### 3.03 ADJUST AND CLEAN

- A. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.
- B. Clean adjacent surfaces soiled by hardware installation.

- 3.04 KEYS: Provide a set of 5 keys each for room #1, #14, and #16. Provide 20 keys for remainder of the rooms. See drawings for key hierarchy.

END OF SECTION

## SECTION 09250 GYPSUM WALLBOARD

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

A. Types of work include:

Gypsum drywall applied to wood framing and furring.  
Drywall-finishing (joint tape-and-compound treatment).

#### 1.02 QUALITY ASSURANCE

A. Provide fire-resistance rated assemblies identical to those indicated by reference to the Gypsum Association Publication GA File No's. in GA "Fire Resistance Design Manual" or to design designations in UL "Fire resistance Directory" or in listing of other testing and agencies acceptable to authorities having jurisdiction.

B. Single-Source responsibility:

1. Obtain gypsum board products from a single manufacturer, or from manufacturers recommended by the prime manufacturer of gypsum boards.

#### 1.03 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original packages, containers or bundles bearing brand name and identification of manufacturer or supplier.

B. Store materials inside under cover and in manner to keep them dry, protected from weather, direct sunlight, surface contamination, corrosion and damage from construction traffic and other causes. Neatly stack gypsum boards flat to prevent sagging.

C. Handle gypsum boards to prevent damage to edges, ends or surfaces. Protect metal corner beads and trim from being bent or damaged.

#### 1.04 PROJECT CONDITIONS

A. Environmental Requirements, General:

1. Comply with requirements of referenced gypsum board application standards and recommendations of gypsum board manufacturer, for environmental conditions before, during and after application of gypsum board.

B. Cold Weather-Protection:

1. When ambient outdoor temperatures are below 55° F (13° C) maintain continuous, uniform, comfortable building working temperatures of not less than 55°F (13°C) for a minimum period of 48 hours prior to, during and following application of gypsum board-and joint treatment materials or bonding of adhesives.

C. Ventilation:

1. Ventilate building spaces as required to remove water in excess of that required for drying of joint treatment material immediately after its application. Avoid drafts during dry, hot weather to prevent too rapid drying.

### PART 2 - PRODUCTS

## 2.01 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with requirements, provide products by one of the following:

American Gypsum Co.  
Flintkote Products, Genstar Building Materials Co.  
Georgia-Pacific Co.  
Gold bond Building Products Div., National Gypsum Co,  
United States Gypsum Co.

## 2.02 GYPSUM BOARD

A. Gypsum wallboard:

1. ASTM C 36, of types, edge configuration and thickness indicated below; in maximum lengths available to minimize end-to-end butt joints.

a. Type: "Type X" for fire-resistant rated assemblies and where indicated, Class 1 (plain face), Form a (plain back).

(1) Edge: Tapered or recessed.

(2) Thickness: 5/8 inch, unless otherwise indicated.

B. Gypsum Backing Board for Multi-Layer Applications:

1. ASTM C 442 or, where backing board is not available from manufacturer, gypsum wallboard, ASTM C 36, of type, edge configuration and thickness indicated below; in maximum lengths available to minimize end-to-end joints.

a. Type: Type IV (backing board), Grade R (regular core), Class 1 (plain face), Form a (plain back).

b. Edge: Square, non-tapered; or V-tongue and groove.

c. Thickness: 5/8 inch, unless otherwise indicated.

## 2.03 TRIM ACCESSORIES

A. Provide manufacturer's standard trim accessories of types indicated for drywall work, formed of galvanized steel unless otherwise indicated, with either knurled and perforated or expanded flanges for nailing or stapling, and beaded for concealment of flanges in joint compound.

B. Provide corner beads, L-type edge trim-beads, U-type edge trim-beads, special L-kerf-type edge trim-beads, and one-piece control joint beats.

## 2.04 JOINT TREATMENT MATERIALS

A. ASTM C 475; type recommended by the manufacturer for the application indicated, except as otherwise indicated.

B. Joint Tape:

1. Paper reinforcing tape.

C. Joint Compound:

1. Interior work - chemical-hardening-type for bedding and filling, ready-mixed vinyl-type or vinyl-type power type for topping.

a. Subject to compliance with requirements provide sheetrock Brand W.R. Compound: United States Gypsum Co.

## 2.05 MISCELLANEOUS MATERIALS

- A. Provide auxiliary materials for gypsum drywall work of the type and grade recommended by the manufacturer of the gypsum board.
- B. Laminating Adhesive:
  - 1. Special adhesive or joint compound specifically recommended for laminating gypsum boards.
- C. Fastening Adhesive (for Wood):
  - 1. ASTM C 557.
- D. Gypsum Board Screws:
  - 1. Comply with ASTM C 646.
- E. Gypsum Board Nails:
  - 1. Comply with ASTM C 514.
- F. Concealed Acoustical Sealant:
  - 1. Nondrying, nonhardening, nonskinning, nonstaining, nonbleeding, gunnable sealant for concealed applications per ASTM C 919.
- G. Exposed Acoustical Sealant:
  - 1. Nonoxidizing, skinnable, paintable, gunnable sealant for exposed applications per ASTM C 919.

## PART 3 - EXECUTION

### 3.01 CONDITION OF SURFACES

- A. Inspect framing before starting installation of gypsum board.
- B. Correct any crooked, twisted, or otherwise defective framing members that will cause visible flaws in the finished surfaces.

### 3.02 INSTALLATION

- A. Installation shall be based on the recommendations of the Gypsum Association publications GA-216, Recommended Specifications for the Application and Finishing of Gypsum Board and ASTM C 840.
- B. Fasten wallboard to studs or joists with nails or screws, or adhesive with nails or screws.
  - 1. Ceilings without adhesive.
    - a. Nails - 7 inches on center.
    - b. Screws - 12 inches on center.
  - 2. Ceilings with adhesive.
    - a. Nails - 16 inches on center.
    - b. Screws - 16 inches on center.

3. Walls without adhesive.

- a. Nails - 8 inches on center.
- b. Screws - 16 inches on center.

4. Walls with adhesive.

- a. Nails - 16 inches on center.
- b. Screws - 24 inches on center.

5. Nail spacing may be increased to 12 inches when double-nailing system used.

6. Dimple surface of board when nailing but do not break paper.

7. Apply adhesive as recommended by manufacturer.

- C. Butt joints loosely, never force panels into place.
- D. Stagger end joints. Do not butt tapered edges with square edges.
- E. Do not meet four corners at one point.
- F. End joints may be made between studs or joists provided that such joints are treated in strict accordance with U.S. Gypsum Company's "Back Blocking system."
- G. On surfaces to be exposed, tape, cement, and apply metal in accordance with manufacturer's instructions. Apply at least three coats of cement on nails and joints. Sand between coats to achieve smooth-finished surface in which no joints, nails, or other flaws will be visible after surfaces are painted.
- H. On gypsum board above suspended ceiling, tape and cement all joints and nails. No other finish required.
- I. Use metal edge on all external corners.
- J. Apply with long dimension perpendicular to framing members except where double layer used in which case layers shall run in opposite directions.
- K. Use double layer system where shown on drawings. Fasten base layers with screws and face later with adhesive and supplementary fasteners.
- L. Finish all joints and fastenings except where gypsum board is used for backing for other materials.
- M. Mix adhesive compounds for treatment of wallboard joints and fastener heads in accordance with manufacturer's printed instructions. Ready-mixed compounds may be used in lieu of job-mixed materials provided the ready-mixed compounds are delivered in original unopened containers.

3.03 TEXTURE

- A. Apply smooth textured finish to ceilings in Rooms #12b, #16a, & 16b.
- B. All walls shall match existing finishes of walls in the room. If there is a conflict of multiple types, bring to the attention of the CO for which finish to utilize.

END OF SECTION



## SECTION 09650 RESILIENT FLOORING

### PART 1 - GENERAL

#### 1.01 QUALITY ASSURANCE for materials not salvaged.

##### A. Manufacturer:

1. Provide each type of resilient flooring and accessories as produced by a single manufacturer, including recommended primers, adhesives, sealants, and leveling compounds.

#### 1.02 SUBMITTALS

- A. Submit complete set of manufacturer's samples of each type of floor covering; trim, and base to be used by CO for selection of colors and patterns for flooring NOT salvaged.
- B. Submit manufacturer's literature, certification, or other data showing proposed products comply with these Specifications.
- C. Submit 2 copies of manufacturer's recommended maintenance practices for each type of resilient flooring and accessory required.

#### 1.03 PROJECT CONDITIONS

- A. Install resilient flooring and accessories after other finishing operations, including painting, have been completed. Do not install resilient flooring over concrete slab until the latter has been cured and is sufficiently dry to achieve bond with adhesive as determined by resilient flooring manufacturer's recommended bond and moisture test.

#### 1.04 PRODUCT DELIVERY AND STORAGE

- A. Deliver materials to project site in manufacturer's original, unopened containers with labels indicating brand names, colors, and patterns, and quality designations legible and intact for materials not salvaged.
- B. Do not open containers or remove markings until materials are inspected and accepted.
- C. Store and protect accepted materials in accordance with manufacturer's directions and recommendations.
- D. Unless otherwise directed, store materials in original containers at not less than 70°F. (21°C.) for not less than 24 hours immediately before installation.

#### 1.05 APPLICATOR EXPERIENCE

- A. Flooring and related work shall be installed by craftsmen experienced in this trade.

### PART 2 - PRODUCTS

#### 2.01 VINYL FLOORING

- A. Match existing flooring or approved equal.

#### 2.02 BASE MATERIALS

##### A. Miscellaneous:

1. Uniform in thickness.
2. As long as practicable to suit conditions of installation.

## 2.03 ACCESSORIES

### A. Resilient Edge Strips:

1. 1/8-inch thick, homogeneous vinyl or rubber composition, tapered or bullnose edge, color to match flooring, or as selected by CO from standard colors available; not less than 1 inch wide.

### B. Thresholds:

1. Molded or extruded vinyl or rubber.
2. Lengths as required for dimensions of opening.

### C. Reducers:

1. Standard vinyl or rubber floor reducer.
2. Thickness to suit abutting floor covering material by approximately 1 inch wide.
3. Beveled or tapered edge style.

### D. Adhesives (Cements):

1. Waterproof, stabilized type as recommended by flooring manufacturer to suit material and substrate conditions.

### E. Concrete Slab Primer:

1. Non-staining type as recommended by flooring manufacturer.

### F. Leveling and Patching Compounds:

1. Latex types as recommended by flooring manufacturer.

## PART 3 - EXECUTION

### 3.01 INSPECTION

- A. Require Installer to inspect subfloor surfaces to determine that they are satisfactory. A satisfactory subfloor surface is defined as one that is smooth and free from cracks, holes, ridges, coatings preventing adhesive bond, and other defects impairing performance or appearance.
- B. Perform bond and moisture tests on concrete subfloors to determine if surfaces are sufficiently cured and dry as well as to ascertain presences of curing compounds.
- C. Do not allow resilient flooring work to proceed until subfloor surfaces are satisfactory.

### 3.02 PREPARATION

#### A. Prepare subfloor surfaces as follows:

1. Use leveling and patching compounds as recommended by resilient flooring manufacturer for filling small cracks, holes and depressions in subfloors.
2. Remove coatings from subfloor surfaces that would prevent adhesive bond, including curing compounds incompatible with resilient flooring adhesives, paint, oils, waxes and sealers.

#### B. Broom clean or vacuum surfaces to be covered, and inspect subfloor.

#### C. Apply concrete slab primer, if recommended by flooring manufacturer, prior to application of adhesive. Apply in compliance with manufacturer's directions.

### 3.03 INSTALLATION - GENERAL

- A. Install resilient flooring using method indicated in strict compliance with manufacturer's printed instructions. Extend resilient flooring into toe spaces, door reveals, and into closets and similar openings.
- B. Scribe, cut, and fit resilient flooring to permanent fixtures, built-in furniture and cabinets, pipes, outlets and permanent columns, walls and partitions.
- C. Maintain reference markers, holes, or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on subfloor. Use chalk or other non-permanent marking device.
- D. Tightly cement resilient flooring to subbase without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, or other surface imperfections. Hand roll resilient flooring at perimeter of each covered area to assure adhesion.

### 3.04 INSTALLATION OF ACCESSORIES

- A. Apply wall base to walls, columns, pilasters, casework and other permanent fixtures in rooms or areas where base is required. Install base in lengths as long as practicable, with preformed corner units, or fabricates from base materials with mitered or coped inside corners.
- B. Tightly bond base to substrate throughout length of each piece, with continuous contact at horizontal and vertical surfaces.
- C. On masonry surfaces, or other similar irregular substrates, fill voids along top edge of resilient wall base with manufacturer's recommended adhesive filler material.
- D. Place resilient edge strips tightly butted to flooring and secure with adhesive. Install edging strips at edges of flooring which would otherwise be exposed.

### 3.05 CLEANING AND PROTECTION

- A. Perform following operations immediately upon completion of resilient flooring:
  - 1. Sweep or vacuum floor thoroughly.
  - 2. Do not wash floor until time period recommended by resilient flooring manufacturer has elapsed to allow resilient flooring to become well-sealed in adhesive.
  - 3. Damp-mop floor being careful to remove black marks and excessive soil.
  - 4. Remove any excess adhesive or other surface blemishes, using appropriate cleaner recommended by resilient flooring manufacturers.

END OF SECTION

## SECTION 09680 CARPETING

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Extent of each type of carpeting is indicated on drawings and by specifications, and is defined to include carpet, cushion and accessories.

#### 1.02 QUALITY ASSURANCE

- A. Static Resistance:

- 1. Provide yarn or yarn blend as indicated in carpet construction, and include provisions to comply with static resistance ratings as indicated, either by selection of yarns known to be effective or by inclusion of small percentages of special anti-static yarn known to be effective in achieving indicated static resistance. Where rating is not otherwise indicated, Minimum 2.0 kv resistance for 20 c.r.h. at 70°F (21°C), AATCC 134.

#### 1.03 SUBMITTALS

- A. Submit manufacturers' literature on the proposed carpets and pads.
- B. Color selection, commercial carpet: See Drawing Notes.
- C. Submit manufacturer's application instructions and recommendations prior to starting work.
- D. Furnish copies of the carpet manufacturers' detailed maintenance recommendations for the care, cleaning, and repair of the type of carpet installed under this contract.

#### 1.04 PRODUCT DELIVERY AND STORAGE

- A. Deliver carpeting materials in original mill protective wrapping with mill register numbers and tags attached.
- B. Store inside, in well-ventilated area, protected from weather, moisture and soiling.

#### 1.05 EXTRA STOCK

- A. 1 carton of carpet squares furnished to CO, minimum of 20 tiles.

### PART 2 - PRODUCTS

#### 2.01 CARPET (LIGHT-TO-HEAVY COMMERCIAL)

- A. Carpet to conform to the following:

- 1. Fiber System: solution dyed twisted polypropylene.
  - 2. Pile Weight: 18 oz/SY.
  - 3. ToGauge 2.1 mm.
  - 4. Density: 5500
  - 5. Flammability Class I.
  - 6. Static propensity (AATCC 134): Less than 2.0 KV.
  - 7. Warranty: lifetime

- B. Carpet shall be free of visual blemishes, streaks, poorly dyed areas, and other physical and manufacturing defects.

- C. The above carpet specification is based on NEXT FLOOR 811 010 for the purpose of establishing minimum requirements, see drawings Notes. Other carpets can be substituted, provided that the final product is equal to or superior to that specified and approved by the CO.

## 2.02 CARPET ACCESSORIES

### A. Carpet Edge Guard, Nonmetallic:

- 1. Extruded or molded heavy-duty vinyl or rubber carpet edge guard of size and profile indicated and with minimum 2", wide anchorage flange; colors selected by CO from among standard colors available within the industry (any manufacturer).

### B. Installation Adhesive:

- 1. Water-resistant, nonstaining type as recommended by carpet or cushion manufacturer, and which complies with flammability requirements for installed carpet.

### C. Seaming Cement:

- 1. Hot-melt seaming adhesive or similar product recommended by carpet manufacturer, for taping seams and buttering cut edges at backing to form secure seams and prevent pile loss at seams.

### D. Miscellaneous Materials:

- 1. As recommended by manufacturers of carpet, cushions and other carpeting products; and selected by Installer to meet project circumstance and requirements.

## PART 3 - EXECUTION

### 3.01 PRE-INSTALLATION REQUIREMENTS

- A. Examine substrates for moisture content and other conditions under which carpeting is to be installed. Repair minor holes, cracks, depressions or rough areas using material recommended by carpet or adhesive manufacturer. Notify Contractor of major conditions detrimental to proper completion of the work. Do not proceed until unsatisfactory conditions have been corrected.
- B. Clear away debris and scrape up cementitious deposits from surfaces to receive carpeting; vacuum clean immediately before installation. Check concrete surfaces to ensure no "dusting" through installed carpet; apply sealer where required to prevent dusting.
- C. Sequence carpeting with other work so as to minimize possibility of damage and soiling of carpet during remainder of construction period.

### 3.02 INSTALLATION

#### A. General:

- 1. Comply with manufacturer's instructions and recommendations for seam locations and direction of carpet; maintain uniformity of carpet direction and lay of pile.
- 2. Extend carpet under open-bottomed obstructions and under removable flanges and furnishings, and into alcoves and closets of each space.
- 3. Provide cut-outs where required, and bind cut edges properly where not concealed by protective edge guards or overlapping flanges.
- 4. Install carpet edge guard where edge of carpet is exposed; anchor guards to substrate.

B. Glue-Down Installation: (Commercial)

1. Fit sections of carpet into each space prior to application of adhesive.
2. Trim edges and butter cuts with seaming cement.
3. Apply adhesive uniformly to substrate in accordance with manufacturer's instructions.
4. Butt carpet edges tightly together to form seams without gaps.
5. Role entire carpet area lightly to eliminate air pockets and ensure uniform bond.
6. Remove adhesive promptly from face of carpet.

3.03 CLEANING AND PROTECTION

- A. Remove and dispose of debris and unusable scraps.
- B. Vacuum carpet using commercial machine with face-beater element. Remove spots and replace carpet where spots cannot be removed. Remove any protruding face yarn using sharp scissors.
- C. Deliver specified overrun to CO.

END OF SECTION

## SECTION 09900 PAINTING

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Extent of painting/staining work is indicated on drawings and schedules, and as herein specified.
- B. Work includes painting and finishing of interior and exterior exposed items and surfaces throughout project, except as otherwise indicated.
  - 1. Surface preparation, priming and coats of paint specified are in addition to shop-priming and surface treatment specified under other sections of work.
- C. Painting includes Staining and Varnishing and in the specifications is used interchangeably.
- D. Drawing show work areas to be done.

#### 1.02 QUALITY ASSURANCE

- A. Single Source Responsibility: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer, and use only within recommended limits.

#### 1.03 SUBMITTALS

- A. Submit a complete list of all materials proposed for use together with manufacturer's Specification.
- B. List shall be submitted at least 15 calendar days before starting work and shall include manufacturer's number or name for each color of paint to be used.

#### 1.04 PRODUCT HANDLING

- A. Deliver all materials to the site in original unopened containers except containers may be opened and resealed at the shop for custom mixing of colors.
- B. Materials which indicate damage from freezing or other cause shall not be used.

#### 1.05 JOB CONDITIONS

- A. Apply water-based paints only when temperature of surfaces to be painted, and surrounding air temperatures are between 50°F (10°C) and 90°F (32°C), unless otherwise permitted by paint manufacturer's printed instructions.
- B. Apply solvent-thinned paints only when temperature of surfaces to be painted and surrounding air temperatures are between 45°F (7°C) and 95°F (35°C), unless otherwise permitted by paint manufacturer's printed instructions.
- C. Do not apply paint in snow, rain, fog or mist, or when relative humidity exceeds 85 percent, or to damp or wet surfaces, unless otherwise permitted by paint manufacturer's printed instructions.
  - 1. Painting may be continued during inclement weather if areas or surfaces to be painted are enclosed and heated within temperature limits specified by paint manufacturer during application and drying periods.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

#### A. Material Quality:

1. Provide best quality grade of various types of coatings as regularly manufactured by acceptable paint materials manufacturers. Materials not displaying manufacturer's identification as a standard, best-grade product will not be acceptable.
2. Proprietary names used to designate colors or materials are not intended to imply that products of named manufacturers are required to exclusion of equivalent products of other manufacturers.
3. Federal Specifications establish minimum acceptable quality for paint materials. Provide written certification from paint manufacturer that materials provided meet or exceed these minimums.
4. Color Pigments:
  - a. Pure, non-fading, applicable types to suit substrates and service indicated.
    - (1) Lead content in pigment, if any, is limited to contain no more than 0.06 percent lead, as lead metal based on the total non-volatile (dry-film) of paint by weight.
      - (a) This limitation is extended to interior surface and those exterior surfaces, such as stairs, decks, porches, railings, windows and doors.

## PART 3 - EXECUTION

### 3.01 INSPECTION

- A. Applicator shall examine areas and conditions under which painting work is to be applied. Do not proceed with work until unsatisfactory conditions have been corrected.
- B. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint film.

### 3.02 SURFACE PREPARATION

#### A. General:

1. Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions and as herein specified, for each particular substrate condition.
2. Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be finish-painted, or provide surface-applied protection prior to surface preparation and painting operations. Remove, if necessary, for complete painting of items and adjacent surfaces. Following completion of painting of each space or area, reinstall removed items.
3. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces.

#### B. Cementitious Materials:

1. Prepare cementitious surfaces of concrete and concrete block to be painted by removing efflorescence, chalk, dust, dirt, grease, oils, and by roughening as required to remove glaze.



C. Wood:

1. Clean wood surfaces to be painted of dirt, oil, or other foreign substances with scrapers, mineral spirits, and sandpaper, as required.
2. Sandpaper smooth those finished surfaces exposed to view, and dust off.
3. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat.
4. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler.
5. Sandpaper smooth when dried.

D. Ferrous Metals:

1. Clean ferrous surfaces, which are not galvanized or shop-coated, of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.
2. Touch-up shop-applied prime coats wherever damaged or bare, where required by other sections of these specifications.
3. Clean and touch-up with same type shop primer.

E. Galvanized surfaces:

1. Clean free of oil and surface contaminants with non-petroleum-based solvent.

### 3.03 MATERIALS PREPARATION

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

### 3.04 APPLICATION

A. General:

1. Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.
2. Provide finish coats which are compatible with prime paints used.
3. Apply additional coats when undercoats, stains or other conditions show through final coat of paint, until paint film is of uniform finish, color and appearance.
4. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently-fixed equipment or furniture with prime coat only before final installation of equipment.
5. Paint back sides of access panels, and removable or hinged covers to batch exposed surfaces.
6. Finish exterior doors on tops, bottoms and side edges same as exterior faces, unless otherwise indicated.
7. Sand lightly between each succeeding enamel or varnish coat.
8. Omit first coat (primer) on metal surfaces which have been shop-primed and touch-up painted, unless otherwise indicated.

B. Scheduling Painting:

1. Apply first-coat material to surfaces that have been cleaned pretreated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

- C. Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

- D. Prime Coats: Apply prime coat of material which is required to be painted or finished, and which has not been prime coated by others.

E. Pigmented (Opaque) Finishes:

1. Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage.
2. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.

F. Transparent (Clear) Finishes:

1. Use multiple coats to produce glass-smooth surface film of even luster.
2. Provide a finish free of laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, or other surface imperfections.
3. Provide satin finish for final coats, unless otherwise indicated.

### 3.04 CLEAN-UP AND PROTECTION

A. Clean-up:

1. During progress of work, remove from site discarded paint materials, rubbish, cans and rags at end of each work day.

B. Protection:

1. Protect work of other trades, whether to be painted or not, against damage by painting and finishing work.
2. Correct any damage by cleaning, repairing or replacing, and repainting as acceptable to the CO.

### 3.05 INTERIOR PAINT SCHEDULE

A. General:

1. Provide the following interior paint systems for the various substrates, as indicated.
2. See drawings for additional requirements.

B. Concrete Masonry Units (CMU):

1. Semi-Gloss Alkyd Enamel Finish: 2 Coats over filled surface with total dry film thickness not less than 3.5 mils, excluding filler coat.
2. Color: Match existing. Submit sample for CO approval.

C. Woodwork: Same as 3.05 above. Work includes all interior wood work including but not limited to ceilings, rafters, side-walls.

D. Steel Faced Doors and Frames:

1. Door and frames,
  - a. Semi-Gloss Alkyd Enamel: 2 finish coats over primer.
    - (1) Prime Coat: Factory Primed.
    - (2) First and Second Finish coats: Semi-Gloss Alkyd Enamel (FS TT-E-529, Class A).

END OF SECTION

SECTION 16000 – ELECTRICAL GENERAL PROVISIONS

DIVISION 16 – ELECTRICAL WORK

SECTION 16000 – ELECTRICAL GENERAL PROVISIONS

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK:

- A. WORK: Furnish and install or replace the electrical system as shown on the drawings and specifications. Reference Section 01010 1.02 Description of Work.
  - 1. Common neutrals shall not be allowed.
  - 2. A separate ground wire shall be present for each individual circuit. Conduit shall not be considered as the grounding system.
  - 3. All receptacles and switches shall be grade rated at 20 AMPS.
  - 4. All electrical systems which are being replaced shall have the existing electrical system removed unless approved by the Contracting Officer to remain.
  - 5. All systems shall be complete and in good working condition.

1.02 QUALITY ASSURANCE:

- A. Worker's Qualifications: All electrical work shall be performed by licensed electricians or under the direct supervision of a licensed electrician.
- B. Codes and Regulations: All work shall meet requirements of the most recent version of the National Electric Code. Advise the Contracting Officer of conflicting codes or conflicts between codes and drawings and specifications. When the requirements of specifications or drawings are more stringent than the codes, regulations, or standards, the specifications or drawings shall prevail.
- C. UL Listing: All electrical materials and equipment shall meet requirements of the applicable standards of UL if UL standards exist for such materials and equipment. The UL authorized listing mark is acceptable as evidence that the materials meet this requirement. In lieu of UL authorized listing mark, the Contractor may submit independent proof satisfactory to the Contracting Officer that the materials meet the published standards. Materials and equipment shall be used only for their intended use.
- D. Standard Products: Provide materials and equipment that are products of manufacturers regularly engaged in the manufacture of the products and are the latest standard design.
- E. Finished surfaces of existing facilities that are marred, scratched, or damaged shall be refinished to match original condition. Building surfaces that have been altered for the proper installation of electrical equipment shall be restored by skilled personnel of the trades involved at no additional expense to the Government.
- F. Inspection: All electrical work shall be inspected and approved by the State Electrical Inspector. A permit shall be obtained if required. The Contracting Officer shall be notified 24 hours in advance of when this inspection will occur.

1.03 INTENT OF CONSTRUCTION DRAWINGS:

- A. Drawings do not attempt to show electrical details of affect installation. Diagrams are schematic only and do not necessarily show physical arrangement of equipment.

PART 2 – PRODUCTS - NONE

PART 3 – EXECUTION

3.01 TESTING: General: Perform all tests at no additional expense to the Government. Operate all electrical equipment within the ranges specified by manufacturer. Correct defects revealed by the tests.

END OF SECTION

## SECTION 16050 – BASIC MATERIALS AND METHODS

### PART 1 – GENERAL

- A. SUBMITTALS: Submit all materials, maintenance and warranty materials and cards.

### PART 2 – PRODUCTS

#### 2.01 WIRES AND CABLES

- A. Contractor shall replace all designated conductors with new conductors. All conductors shall be copper unless noted otherwise.
- B. Minimum wire size shall be #12 AWG unless otherwise specified.
- C. All wire shall be new and in the original cartons or on manufacturer's shipping reels.
- D. All conductors shall be insulated for 75 deg C rated for wet or dry locations, and shall be THHN, THW, THWN, or XHHW. All conductors shall be rated at minimum of 600 volts.

#### 2.02 WIRE CONNECTORS AND JOINTS: All conductors #6 AWG or smaller shall be joined with electrical spring connectors with vinyl insulating cap. Conductors larger than #6 shall be joined with compression type connectors.

#### 2.03 FIXTURE BOXES

- A. A standard galvanized fixture box shall be installed for each and every fixture, device, or junction. Plastic (light duty) or Bakelite fixture boxes are not approved for use. The Contracting Officer will be the judge for approval of proposed fixture box types.
- B. Each fixture shall be rigidly supported from the building construction or as approved by the CO.
- C. Ceiling fixture boxes shall be 4" octagon, round, or square (minimum), 2" deep (minimum) unless approved by the Contracting Officer.

#### 2.04 JUNCTION BOXES AND PULL BOXES: When used, pull boxes and junction boxes shall have flat covers fastened with screws and set flush with the finished surface and located in an accessible area. When installed in damp locations, gaskets, and seals shall be provided.

#### 2.05 WIRING DEVICES: N/A

#### 2.06 RACEWAYS:

- A. Rigid and EMT conduit shall be hot dipped galvanized steel.
- B. Provide compression type fittings or set screw type fittings. Connectors having cast bodies are not acceptable.
- C. Flexible metal conduit used for equipment shall be jacketed with a plastic outer cover and terminated with appropriate factory-installed fittings, UL labeled. Minimum size shall be ½".
- D. Plastic or nonmetallic conduit shall not be allowed.

### PART 3 – EXECUTION

#### 3.01 WALL, FLOOR, AND CEILING OPENINGS:

- A. Locate all openings and advise the Government of details and templates of all openings necessary for inspection of electrical work.
- B. In general, openings and required lintels shall be provided by the Contractor. Size and locations are the responsibility of Contractor. Government shall approve all holes and access points prior to work.
- C. The contractor shall seal and weatherproof all penetrations through foundations, exterior walls, and roofs.

3.02 ELECTRICAL WIRING AND CONTROLS:

- A. Fixtures and other equipment shown as being "kept" shall be inspected for safety and code hazards. Any deviation from minimum code or safety considerations shall be brought to the Contracting Officer's attention immediately.
- B. Circuit Identification: All panel boards shall be furnished with typed-card directories shall be located in the panel in a holder for clear viewing or as approved by the Contracting Officer.

3.03 Wall plates: All plates shall be installed plumb and level with all edges in contact with attaching surface. Plates used shall match style and color of existing plates within the room.

3.04 RACEWAYS:

- A. Conduit:
  - 1. Ends of all conduit or tubing shall terminate in a bushing or fitting having factory installed insulating liners. Provide plastic bushings on all conduit or tubing.
  - 2. Flexible metal conduit shall be used for connections to motors and mechanical equipment. Flexible metal conduit may be utilized to hook to equipment and devices where allowed. Maximum length of flexible metallic conduit shall be 10'-6". Longer length may be permitted at the discretion of the Contracting Officer (CO).
- B. Replace crushed, deformed, or clogged raceways.
- C. Run raceway plumb, level, and in a direct line, with long sweeping bends and offsets.
- D. Install raceway a minimum of 6 inches from water lines.
- E. Securely mount raceway using manufactured supports, connectors, and securing devices.

3.05 METAL FRAMING: N/A

3.06 SLEEVES AND INSERTS: N/A

END OF SECTION