

**SECTION 09 64 00****WOOD FLOORING****PART 1 GENERAL**

## 1.1 SUMMARY

- A. Section includes the following wood flooring:
  - 1. Cutting and patching and repair of existing wood strip flooring.
  - 2. Installation of new wood strip flooring.
  - 3. Sanding and refinishing of wood strip flooring for transparent finish.

## 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each type of wood flooring and accessory.
- C. Maintenance Data: Submit manufacturer's written maintenance instructions which describe materials, devices and procedures to be followed in cleaning and maintaining floors.

## 1.3 QUALITY ASSURANCE

- A. Hardwood Flooring: Comply with NOFMA's "Official Flooring Grading Rules" for species, grade, and cut.
- B. Softwood Flooring: Comply with WCLIB No. 17 grading rules for species, grade, and cut.
- C. Provide a sample installation of typical refinished flooring area. VA

## 1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver wood flooring materials in unopened cartons or bundles.
- B. Protect wood flooring from exposure to moisture. Do not deliver wood flooring until after concrete, masonry, plaster, ceramic tile, and similar wet work is complete and dry.
- C. Store wood flooring materials in a dry, warm, ventilated, weathertight location.

## 1.5 SAMPLE INSTALLATION

- A. Prior to commencing Work and following acceptance of samples, provide sample installation of wood flooring Work.
- B. Size and Extent: Minimum 10 square feet in location acceptable to VA, including base and shoe molding.
  - 1. Include both new and existing strip flooring in sample.

## 1.6 PROJECT CONDITIONS

- A. Conditioning period begins not less than seven days before wood flooring installation, is continuous through installation, and continues not less than seven days after wood flooring installation.
  - 1. Environmental Conditioning: Maintain an ambient temperature between 65 and 75 deg F (18 and 24 deg C) and relative humidity planned for building occupants in spaces to receive wood flooring during the conditioning period.
  - 2. Wood Flooring Conditioning: Move wood flooring into spaces where it will be installed, no later than the beginning of the conditioning period.
    - a. Do not install flooring until it adjusts to relative humidity of, and is at same temperature as, space where it is to be installed.
    - b. Open sealed packages to allow wood flooring to acclimatize immediately on moving flooring into spaces in which it will be installed.
  - 3. Finishing: Follow finish manufacturer's instructions for ventilation, ambient temperature and personnel protection.
- B. After conditioning period, maintain relative humidity and ambient temperature planned for building occupants.
- C. Install factory-finished wood flooring after other finishing operations, including painting, have been completed.

## PART 2 - PRODUCTS

## 2.1 PERFORMANCE REQUIREMENTS

- A. Low-Emitting Materials: Wood flooring systems shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

## 2.2 WOOD FLOORING

- A. Certified Wood: Provide wood flooring produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- B. Solid-Wood Flooring: Kiln dried to 6 to 9 percent maximum moisture content, tongue and groove and end matched, and with backs channeled.
  - 1. Wood Strip Flooring: Subject to compliance with requirements, provide products that match existing flooring.
  - 2. Sub-Flooring: APA Rated Sheathing, EXT plywood to match existing tongue and groove edge.
  - 3. Material to match existing:
    - a. Species and Grade.
    - b. Cut.
    - c. Thickness.
    - d. Face Width.
    - e. Lengths: Length required to match existing pattern.
  - 4. Finishing: Field.

## 2.3 FIELD FINISHING

- A. Urethane Finish System: Complete solvent-based, oil-modified system of compatible components that is recommended by finish manufacturer for application indicated.
  - 1. VOC Content: When calculated according to 40 CFR 59, Subpart D (EPA Method 24), as follows:
    - a. Finish Coats and Floor Sealers: Not more than 350 g/L.
    - b. Stains: Not more than 250 g/L.
  - 2. All finishes shall be by the same manufacturer.
  - 3. Finish system materials shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
  - 4. Stain: Penetrating and nonfading type.
    - a. Color: To match VA sample as selected by Architect from manufacturer's full range.
  - 5. Floor Sealer: Pliable, penetrating type.
  - 6. Finish Coats: Formulated for multicoat application on wood flooring.

- B. Wood Filler: Compatible with finish system components, tinted to match stain.

#### 2.4 ACCESSORY MATERIALS

- A. Vapor Retarder: ASTM D 4397, polyethylene sheet not less than [6.0 mils (0.15 mm)] [8.0 mils (0.2 mm)] thick.
- B. Asphalt-Saturated Felt: ASTM D 4869, Type II.
- C. Repair Mixture: fine dust recovered from sanding and flooring finish material mixed to pea soup consistency.
- D. Trowelable Leveling and Patching Compound: Latex-modified, hydraulic-cement-based formulation approved by wood flooring manufacturer.
- E. Fasteners: As recommended by manufacturer, but not less than that recommended in NWFA's "Installation Guidelines: Wood Flooring."
- F. Thresholds and Saddles: To match wood flooring. Tapered on each side.
- G. Reducer Strips: To match wood flooring. 2 inches (51 mm) wide, tapered, and in thickness required to match height of flooring.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Wood Subfloor: Grind high spots and fill low spots to produce a maximum 1/8-inch (3-mm) deviation in any direction when checked with a 10-foot (3-m) straight edge.
  - 1. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, and depressions in substrates.
- B. Remove coatings, finishes and other substances on wood flooring that are incompatible with finishing wood strip flooring, using mechanical methods recommended by manufacturer. Do not use solvents.
- C. Broom or vacuum clean substrates to be covered immediately before product installation. After cleaning, examine substrates for damage, failure or dust. Proceed with installation only after unsatisfactory conditions have been corrected.

## 3.2 INSTALLATION

- A. Comply with flooring manufacturer's written installation instructions, but not less than applicable recommendations in NWFA's "Installation Guidelines: Wood Flooring."
- B. Provide expansion space at walls and other obstructions and terminations of flooring of not less than **1/2 inch (13 mm)**.
- C. Vapor Retarder: Comply with NOFMA's "Installing Hardwood Flooring" for vapor retarder installation and the following:
  - 1. Wood Flooring Nailed to Wood Subfloor: Install flooring over a layer of asphalt-saturated felt.
- D. Solid-Wood Flooring: Blind nail or staple flooring to substrate.
  - 1. For flooring of face width more than **3 inches (75 mm)**:
    - a. Install countersunk screws at each end of each piece in addition to blind nailing. Cover screw heads with wood plugs glued flush with flooring.
    - b. Install no fewer than two countersunk nails at each end of each piece, spaced not more than **16 inches (406 mm)** along length of each piece, in addition to blind nailing. Fill holes with matching wood filler.

## 3.3 FIELD FINISHING

- A. General: Sand, prepare and finish wood flooring in accordance with finish manufacturer's instructions.
- B. Machine-sand flooring to remove offsets, ridges, cups, previous finish, and sanding-machine marks that would be noticeable after finishing. Vacuum and tack with a clean cloth immediately before applying finish.
  - 1. Comply with applicable recommendations in NWFA's "Installation Guidelines: Wood Flooring."
- C. Fill and repair wood flooring seams and defects.
- D. Apply floor-finish materials in number of coats recommended by finish manufacturer for application indicated, but not less than one coat of floor sealer and three finish coats.
  - 1. Apply stains to achieve an even color distribution matching approved Samples.
  - 2. For water-based finishes, use finishing methods recommended by finish manufacturer to minimize grain raise.
- E. Cover wood flooring before finishing.

- F. Do not cover wood flooring after finishing until finish reaches full cure, and not before seven days after applying last finish coat.

3.4 PROTECTION

- A. Do not permit traffic on floor after sanding and until finishis completed.
- B. Protect installed wood flooring during remainder of construction period with covering of heavy kraft paper or other suitable material. Do not use plastic sheet or film that might cause condensation.
  - 1. Do not move heavy and sharp objects directly over kraft-paper-covered wood flooring. Protect flooring with plywood or hardboard panels to prevent damage from storing or moving objects over flooring.

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