

SECTION 06460 - WOOD DOORFRAMES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes wood frames as follows:
 - 1. Non-Rated Wood Door Frames, Sidelights, Borrowed Lights and Transoms.
 - 2. Fire-Rated Door Frames, Sidelights, Borrowed Lights and Transoms.

1.2 RELATED SECTIONS

- A. Section 06200 - Finish Carpentry
- B. Section 08200 - Wood Doors
- C. Section 08700 - Door Hardware
- D. Section 08800 - Glass and Glazing

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM E 2074 - Standard Test Method for Fire Tests of Door Assemblies, Including Positive Pressure Testing of Side - Hinged and Pivoted Swinging Door Assemblies.
 - 2. ASTM D 5456 - Specification for Evaluation of Structural Composite Lumber Products.
- B. National Fire Protection Association (NFPA):
 - 1. NFPA 80 Standard for Fire Doors and Fire Windows.
 - 2. NFPA 252 Standard Methods of Fire Tests of Door Assemblies.
- C. Uniform Building Code (UBC):
 - 1. UBC Standard UBC 7-2 Fire Tests of Door Assemblies.
- D. Intertek Testing Services/Warnock-Hersey International (ITS-WH)
 - 1. Directory of Certification Listings for Fire Doors
- E. Underwriters Laboratories, Inc. (UL)
 - 1. UL 10 - Fire Tests of Door Assemblies, 9th Edition.
- F. Quality Standards:
 - 1. Window & Door Manufacturers Association
 - a. Industry Standard I.S. 1A-97
 - 2. Architectural Woodwork Institute (AWI):
 - a. Quality Standards of Architectural Woodwork Institute, Seventh Edition.
 - 3. American National Standards Institute (ANSI)
 - a. A115-W Series, Wood Door Hardware Standards
 - 4. Woodwork Institute of California (WIC)
 - a. Quality Standards of the Woodwork Institute of California

1.4 SYSTEM DESCRIPTION

- A. Non-Rated Wood Door Frames and related assemblies and components are from solid sawn lumber with engineered lumber core as scheduled:
 - 1. DuraStraight™ [**Non-Rated Frame**] [**Sidelight**] [**Borrowed Light**] [**Transom**].
- B. Fire-Rated Wood Door Frames and related assemblies and components are from solid sawn lumber with laminated strand lumber core as scheduled:
 - 1. DuraStraight™ [**45-Minute/20-Minute Rated Frame**] [**Sidelight**] [**Borrowed Light**] [**Transom**] rated by ITS/WH

1.5 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit manufacturers technical data for each specified frame type, including details of wood species, design and construction, factory finishing specifications and installation instructions.
- C. Shop Drawings: Submit drawings prepared specifically for this project indicating type, location, dimension and elevation of each frame, wood species, requirements for factory finishing, requirements for glass and glazing, and other pertinent data. For machined frames, indicate dimensions and locations of machining for all hardware applications and types.
- D. Samples: Submit four 8" frame samples showing construction, glued wood components and illustrating the range of finish color and texture of the specified wood species.
- E. Control Submittals: Submit the following:
 - 1. Test Reports: Upon request, submit copies of door frame fire test reports.
 - 2. Certificates: Submit manufacturers certification of compliance with requirements of listing agency.

1.6 QUALITY ASSURANCE

- A. Non-Rated Wood Door Frames, Sidelights, Borrowed Lights and Transoms: Provide frames that are in compliance with the following organizations unless standards are modified or exceeded by this specification:
 - 1. Architectural Woodwork Institute (AWI):
 - a. Quality Standards of Architectural Woodwork Institute, Seventh Edition.
 - 2. American National Standards Institute (ANSI)
 - a. A115-W Series, Wood Door Hardware Standards
 - 3. Woodwork Institute of California (WIC)
 - a. Quality Standards of the Woodwork Institute of California
- B. Fire-Rated Door Frames, Sidelights, Borrowed Lights and Transoms: Provide fire-rated wood frames which are in compliance with regulatory requirements:
 - 1. Fire-rated wood frames are identical in material and construction to units tested in door and frame assemblies per ASTM E 2074, ASTM E 152-81a, NFPA 252, UL 10, and UBC 7-2.

2. Installed fire-rated wood frames comply with NFPA-80 requirements according to building code standards having local jurisdiction.
 3. Fire-rated wood frames shall meet UBC 7-2-97 or UL 10C requirements for positive pressure.
 4. All fire-rated frames will carry ITS-WH label.
- C. Installer Qualification: Installer experienced in performing work of this section who has specialized in the installation of work similar to that required for this project.

1.7 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirement Section
- B. Ordering: Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- C. Delivery: Deliver materials in manufacturers original, unopened, undamaged containers with identification labels intact.
1. Maintain factory packaged frame parts in original units with surfaces protected against oxidization and handling damage until time of installation.
- D. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
1. Stack flat and away from moisture. Leaning items, such as frame legs and stop against walls will cause material to warp.
 2. Some species of hardwoods, such as Cherry, Mahogany and Maple react to light. All items should be kept from exposure to light, both natural and artificial. Once installed, these products will darken naturally.

1.8 Warranty

- A. Provide general warranty required by the General and Supplemental Conditions of Contract.
- B. Manufacturer's Warranty: "Full Life of Original Installation" including removal and replacement if frame(s) do not comply with Warranty tolerance standards.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Provide DuraStraight™ door, relite and transom frames as manufactured by Washington Hardwoods, 3257 17th Avenue West, Seattle, Washington 98119-1708. Telephone: (206) 283-7574; Fax (206) 283-0970; E-mail: info@washingtonhardwoods.com. Website: www.washingtonhardwoods.com.
- B. Substitutions: No known equal.
- C. Provide all wood frames from a single manufacturer.

2.2 MATERIALS

A. Proprietary Products/Systems: Non-rated and Fire-Rated Wood Frames and related components, including the following:

1. DuraStraight™ Non-Rated Frame:

- a. Type: **[Non-Rated Frame] [Sidelight] [Borrowed Light][Transom]**.
- b. Material: 1/8" thick resawn hardwood face (not veneered) with minimum 1/2" thick hardwood edges bonded to engineered core in accordance with ASTM D 5456.
- c. Wood Species: **[Specify wood species]**.
- d. Finish: Factory applied transparent or opaque finish to match Architect's sample. Finish system performance to meet or exceed AWI Section 1500 TR or OP finish system standards. Other finish systems may be specified if required.

2. DuraStraight™ 20-Minute Fire-Rated Frame:

- a. Type: **[20-Minute Rated Frame] [Sidelight] [Borrowed Light] [Transom]**.
- b. Fire Rating (ASTM E 2074): 20 minutes.
- c. Pressure Testing Type: **[Positive] [Negative]**.
- d. Provide frame structure, minimum 1-1/2" thick by 4-13/16" wide, complying with referenced construction requirements.
- e. Material: 1/8" thick resawn hardwood face (not veneered) with minimum 1/2" thick hardwood edges bonded to engineered core in accordance with ASTM D 5456.
- f. Wood Species: **[Specify wood species]**. Specific gravity 0.37 at 12% moisture content.
- g. Finish: Factory applied transparent or opaque finish to match Architect's sample. System performance to meet or exceed AWI Section 1500 TR or OP finish system standards. Other finish systems may be specified if required.
- h. Listing: ITS-WH (Warnock Hersey)
- i. Gasketing at 20-Minute Positive Pressure Frame: Pemko #S88.
- j. Fire clips not needed.

3. DuraStraight™ 45-Minute Fire-Rated Frame:

- a. Type: **[45-Minute Rated Frame] [Sidelight] [Borrowed Light] [Transom]**.
- b. Fire Rating (ASTM E 2074): 45 minutes.
- c. Pressure Testing Type: **[Positive]**.
- d. Provide frame structure, minimum 1-1/2" thick by 5-5/16" wide, complying with referenced construction requirements.
- e. Material: 1/8" thick resawn hardwood face (not veneered) with minimum 1/4" thick hardwood edges bonded to engineered core in accordance with ASTM D 5456.
- f. Wood Species: **[Specify wood species]**. Specific gravity 0.42 at 12% moisture content.
- g. Finish: Factory applied transparent or opaque finish to match Architect's sample. System performance to meet or exceed AWI Section 1500 TR or OP finish system standards. Other finish systems may be specified if required.
- h. Listing: ITS-WH (Warnock Hersey)
- i. Gasketing at 45-Minute Positive Pressure Frame: Pemko #S88.
- j. Fire clips not needed.

2.3 MACHINING AND FITTING

- A. All wood frames shall be machined by the manufacturer for hinges, locks and all hardware requiring routing and mortising. Any required dados for frame assembly will be performed by the manufacturer prior to finishing.
 - 1. Machining will be performed with final hardware schedules, shop drawings, hardware templates and other essential information required to insure proper fit of doors, frames relate components and hardware.
 - 2. Machining tolerances will be in accordance with ANSI/WDMA I.S. 1-A1 1997.
 - 3. Fire-rated frames will be machined under observation and in strict accordance with the requirements of the listing agency.

2.4 PREFINISHING

- A. General: Comply with referenced quality standard requirements for factory finishing.
- B. Transparent Finish: Comply with requirements indicated for grade, finish system, staining effect, and sheen.
 - 1. Finish: Manufacturer's finish with performance requirements and grade comparable to AWI Section 1500 TR finish system standards.
 - 2. Staining: Match approved sample for color.
 - 3. Final color, build and sheen to be approved by architect based on actual review samples.
- C. Opaque Finish: Comply with requirements indicated for grade, finish system, color, and sheen.
 - 1. Finish: Manufacturer's standard finish with performance requirements and grade comparable to AWI Section 1500 OP finish system standards.
 - 2. Color: Match approved sample for color.
 - 3. Final color, build and sheen to be approved by architect based on actual review samples.

2.5 ACCESSORY MATERIALS

- A. Accessory Materials: Refer to other sections for related materials.

2.6 SOURCE QUALITY CONTROL

- A. Tests, Inspection: Provide Fire-Rated frames clearly marked with the stamp or seal of listing agency.

PART 3 - EXECUTION

3.1 MANUFACTURERS INSTRUCTIONS

- A. Comply with the instructions and recommendations of the frame manufacturer.

3.2 EXAMINATION

- A. Site Verification of Conditions:
- B. Verify site conditions are satisfactory for installation of frames and related components.
- C. Do not proceed with installation until unsatisfactory conditions are corrected.

3.3 PREPARATION

A. Rough Opening:

- A. All frames should be installed after rough framing and prior to gypsum wallboard.
- B. For door openings, the metal or wood studs on either side of the rough opening should be left loose as they will be screwed to the back of the frame at time of installation.

3.4 INSTALLATION

- A. Install frames plumb and square. Per shop drawings and manufacturer's printed instructions. Verify opening and dimensions with the shop drawings.
- B. Fire-Rated Frames:
 - 1. Fire clips not needed for 20-minute or 45-minute rated relites
 - 2. Apply Pemko #S88 smoke seal on all fire-rated doorframes.

3.5 PROTECTION

- A. Protection of the frames once installed is accomplished at the discretion of the installer. If required, protect frames following installation from damage that may occur as a result of subsequent construction activity on the site. Use materials in a "C" channel configuration up to manufacturer recommended height.

END OF SECTION