

SECTION 081420 - EXTERIOR DOORS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data.
- B. Design Basis: JELD-WEN's Builders Fiberglass Doors; Smooth-Pro SP-60 6-Panel Door, SP-659 CL 4-Panel with sunburst lite, or equivalent.
- C. AAMA 1304; Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems
- D. NFRC 100; Procedure for Determining Fenestration Thermal Properties
- E. NFRC 200; Solar Heat Gain Coefficient and Visible Transmittance
- F. FBC Section 1626: High Velocity Hurricane Zones – Impact Tests for Windborne Debris
- G. **Prior to installation of new doors, all deteriorated or damaged lumber in the frames, casings, door stops, sill, header, jambs, etc. shall be removed and replaced with new lumber.**
- H. **All homes shall have minimum 6'-8" tall solid-core exterior doors with fiberglass or wood veneer finish.**
- I. **Install or replace the door bell, including wiring, button, and bell unit.**
- J. **Front entry doors shall be 6-Panel with peep hole or 4-Panel with sunburst lite, and door knocker/viewer.**
- K. **Side and rear doors shall be solid-core with fiberglass or steel veneer, but may be smooth with no paneling.**
- L. **Low-Emitting Materials: Provide doors made with adhesives and composite wood products that do not contain urea formaldehyde.**
- M. **See NSP Green Building Practices Handbook, Section 4.1 – Environmentally Preferable Products and Section 3.1 – Insulation.**

PART 2 - PRODUCTS

2.1 FIBERGLASS EXTERIOR DOORS

- A. Provide doors capable of complying with the designs pressures as required by local building code.

- B. Provide doors capable of resisting impact from windborne debris, when tested in accordance with ASTM E1886 and ASTM E1996. In addition, doors must have been tested in accordance with FBC Section 1626.
- C. Provide doors capable of complying with a **U factor \leq or equal to 0.65** in accordance with NFRC 100 and a **SHGC \leq or equal to 0.40** in accordance with NFRC 200.
- D. Materials
 - 1. Fiberglass Skins incorporating multiple layers of resins, tinted resins, base colors and reinforcing materials.
 - 2. Stiles and Rails: Engineered wood (laminated veneer lumber)
 - 3. Core: Custom-fitted polystyrene core for stable insulation.
- E. Product Description
 - 1. Thickness: minimum 1-3/4" with a 20 minute fire rating
 - 2. Door Style: Entry – Panel or paneled with glass; Side and Rear – Solid
 - 3. Door Shape: Entry – Square Top 6-Panel or 4-Panel with lite; Side and Rear – Solid
 - 4. Finish: Woodgrain pattern or smooth paintable surface.
 - 5. Hardware: Manufactured to accept handle set and dead-bolt, with recessed hinges.
- F. Pre-hung Hardwood Systems
 - 1. Jambs shall be solid pine wood or Auralast at a width determined by the framed opening.
 - 2. All pre-hung doors shall contain a "brickmold" trim and weather stripping.
 - 3. A minimum of three (3) hinges shall be solid brass concealed-bearing with a satin nickel or oil-rubbed bronze finish.
 - 4. Sills shall be aluminum with a polished aluminum finish.
 - 5. All pre-hung doors shall suit frame-opening sizes indicated and to comply with clearances specified by the manufacturer.

2.2 SECURITY DOORS

- A. **Furnish and install security door (burglar bar) where required.**
 - 1. **The burglar bar door will be constructed of 1" x 2" x 16 gauge galvanized milled steel square tube.**
 - 2. **All vertical bars, pickets will be constructed with 1/2" x 1/2" hot rolled steel square solid bars.**
 - 3. **Hinges are 3-1/2" x 2-1/4" with tight pins welded to inner and outer framing.**
 - 4. **Locks are to be Kwikset Deadbolt, or equal, fastened to 1/8" x 4" steel center plate with receiver cut into outer framing.**
 - 5. **Screens are to be made from 5/16" x 3/4" aluminum framing with fiberglass screening.**
 - 6. **All doors are primed (black oxide) finished coated and installed to fit present door opening.**

2.3 SCREEN DOORS

- A. Furnish and install new wood or metal screen doors where required.**
 - 1. Screen doors shall be complete with wire, closer, latch, and strike plate.**
 - 2. Bottom panel shall be provided with screen guard on exterior side of door. New screening shall not have any sags, bulges, or rips.**
 - 3. Replace screening gaskets as required.**

2.4 FURTHER EXTERIOR DOOR REQUIREMENTS

- A. All exterior doors shall be solid-core and include a method to protect the door's susceptibility to door edge splitting.**
- B. All exterior doors shall be 1 – 3/4" inches thick. (If steel door is permitted, it shall be a minimum of 24 gauge).**
- C. The door edges shall be protected to prevent splitting at the deadbolt by way of installing an escutcheon plate. This escutcheon plate significantly increases the rigidity of the door edge and reduces the chance of the door splitting around the deadbolt area.**
- D. All exterior door frames shall be fitted with high-security strike plates. These strike plates shall be constructed of heavy-gauge brass or steel and contain a minimum of four three inch offset screws. A hardwood filler shall be inserted between the door jamb and wall structure. This filler shall extend a minimum of twelve inches above and below the strike plate.**
- E. All door hinges shall be anchored with at least three inch long screws and shimmed.**

PART 3 - EXECUTION**3.1 INSTALLATION**

- A. Caulk outside perimeter of door unit between brickmold and wall face, along front side of threshold, and between jamb sides and threshold.**
- B. Align and fit doors in frames with uniform clearances and bevels to prevent air-infiltration and to be completely weather-tight. Machine doors for hardware, if pre-hung doors are not supplied. Seal cut surfaces with prime paint after fitting and machining.**
- C. Install doors in accordance with manufacturer's installation guidelines and recommendations.**

END OF SECTION 081420