

University Contact: Project Manager on said project

## SECTION 8: OPENINGS

**This section of the Standards establishes minimum requirements only and is to be used to guide, and not replace, the complete project specification section. The Architect and/or Engineer shall further produce project specifications in line with industry standards that incorporate these University requirements.**

### ➤ PROJECT GUIDELINES

#### ➤ DOORS

- In general, hollow metal doors should be designed and specified for areas of heavy use and potential abuse. Commercial heavy-duty hollow metal frames should be utilized regardless of whether the door is hollow metal, glass, or wood. Knockdown frames are not allowed without written permission from UD. Wood doors with hollow metal frames are preferred for interior applications unless otherwise noted.
- Doors and frames shall be specified as commercial heavy-duty quality. Minimum door thickness shall be 1-3/4 inch thick. Interior doors shall comply with SDI-100, Grade II, heavy duty, minimum 18-gauge faces. Exterior doors shall comply with SDI-100 Grade III, extra heavy duty, minimum 16-gauge faces. All wood doors shall be solid core flush with veneer faces that do not include endangered species. All wood doors with stained finishes shall have premium quality veneer faces, with a minimum 1/16-inch thickness.
- Where doors are to be used as part of an acoustical barrier assembly, they shall be rated to match the space requirements or at a minimum STC 33.
- As allowed by building code, doors used as a normal means of ingress and egress shall have either vision panels or adjacent sidelights.
- Frames shall have wall anchors a minimum of 16-inch on center.
- Double door assemblies may be provided with removable center mullions. In this instance, the mullion shall be an integral portion of the locking system for the assembly.
- Doors shall carry a manufacturer's lifetime warranty with a minimum of 1 year on installation.

#### ➤ ALUMINUM FRAMED GLAZING SYSTEMS

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- Glazing film specification and design will be reviewed and approved by the PPD project manager.
- Weathering will be installed in the hinge stiles of pairs or single center hung doors. The lock stile of a single center hung door, active meeting stiles at a pair of butt-hung, offset pivot, or center hung doors will have an adjustable integral weatherstrip.
- No applied stops shall be permitted except at the transom bar of center hung doors. Butt-hung and offset pivot door frames shall have doors stops at jambs and head with continuous weathering.
- Custom Hardware: Doors will be hung with 3 or more ball bearing butt hinges. Pairs of doors shall have a Sargent L980S steel removable mullion. Doors shall be prepared for Sargent 8800 Series rim device. Doors receiving keyed cylinders shall have an exterior trim on the active door. Rim device and trim to be furnished and installed by contractor. Doors shall be installed with a Norton 1604, for interior doors in academic buildings and LCN 4040 in exterior doors and Stairwells. On accessible doors, specify Horton closers (7000 Series for Interior doors and 4000 Series for high use or exterior doors.
- Design team to submit the door and hardware specifications to the UD Lock shop for review at each of the appropriate design reviews.
- The design team shall provide assurance that the types of thresholds and their installations are specified so the threshold maintains its profile and properly performs for the expected life of the building. The threshold shall also comply with construction practices in place during the life cycle of a project, considering the heavy use typical of a university. All thresholds shall be set in a mastic system so that absolutely no water or air infiltration is possible from one side of the doorway to the other.
- All glazing shall be fully tempered unless requested otherwise.
- Where doors are utilized in curtain wall assemblies, at least one section of an exterior door assembly (main ingress and egress), shall have an electric automatic door opener, button activated at the swing side, interior and exterior.
- In areas where the interior clear height of curtain walls, storefront system, or any fixed glass that will require periodic maintenance, exceed 30' (possibly at an atrium), a permanent system(s) must be designed to facilitate window washing without the use of erected scaffolding or movable lifts.

- On buildings that exceed 3 (three) stories or 30' from finish grade, an exterior window washing system shall be designed and permanently installed.

➤ **HARDWARE**

- General: Schlage Heavy Duty or equal (no plastic parts allowed).
- Door locks: Schlage Mortise type locks, L9000 Series
- Panic devices: Sargent 8800 Series
- Hardware to be supplied for small format interchangeable cores. (University standard manufacturer for cores is BEST 7 PIN)
- Electronic access shall be coordinated with UD's preferred vendor and network services. Specify electric strike (Folger Adams) instead of electronic locks.
- Specifications to indicate that prior to substantial completion, the manufacturer rep, hardware supplier and installer jointly inspect and certify that all hardware on the project is properly installed and operating.
- Hardware Submittal:
  - Submit a digital copy, along with a hard copy upon request of the project manager in the specifications. The schedule shall be reviewed prior to submission by a certified Architectural Hardware Consultant, who shall affix his or her seal attesting to the completeness and correctness of the schedule.
  - Furnish a vertical listing of hardware items used, followed by the manufacturer's name either on the cover sheet or immediately following cover sheet. A horizontal schedule is not acceptable.
  - Schedule hardware items for each door separately in typed vertical form. List each door in numerical order under a separate heading using door number in the sequence shown in the Door Opening Schedule. The Hardware Schedule is to clearly indicate the swing, location, number, size, and thickness of each door, as well as type number and finish of each article of hardware required for each opening. Include with each submittal: Documentation from UL or approved testing agency indicating hardware is approved for use on doors complying with current codes.
  - Wiring diagrams: Submit the following details - Elevation, riser, point to point and written description of operation at all headings with electric hardware. Schedules submitted without the above materials will be considered incomplete and will not be reviewed.
  - Approval of schedule does not relieve Contractor of providing hardware specified for project digitally and hard copies upon request by project manager. Catalog cuts are to accompany the Hardware Schedule - including the item, manufacturer, and item number, name, address, and phone number of automatic door operator installer, letter from

automatic door operator manufacturer certifying the above listed installer is a factory-authorized installer.

❖ END OF SECTION