DOOR HARDWARE AND KEYING

PART 1 – GENERAL

1.01 **Summary:** This section describes University specific requirements for door hardware and keying. Information in this section is intended to guide and supplement specifications provided by the Architect and Engineer of Record.

    A.   Permanent key cores shall be installed by the University Key Shop. All other work, including specification, coordination, purchasing, delivering, and scheduling remain requirements of the A/E team and the Construction Manager.

1.02 **Related Work** specified elsewhere includes: doors, frames, card access systems, and fire alarm systems. Refer to "Key Issuance Policy" for requirements and link to Contractor Key Request Form.

1.03 **Quality Assurance:**

- Utilize a certified DHI Architectural Hardware Consultant.

- Comply with NFPA requirements for fire-rated door assemblies and for electrified door hardware.

- Comply with Builder's Hardware Manufacturer's Association (BHMA) standards and certifications.

1.04 **Design Criteria:**

    A.   The Architect shall include a completely itemized hardware schedule in the technical specifications. A cash allowance shall not be utilized unless specifically authorized by the Facilities Project Manager.

    B.   The hardware schedule shall include a complete list of items proposed as standard, together with manufacturer's names and with the names of manufacturers whose products are proposed as equals. This schedule must be approved by the Facilities Project Manager by completion of 50% Construction Documents.

    C.   Specify one manufacturer as standard and, whenever possible, at least two other manufacturers whose products are proven equal EXCEPT comply with specific manufacturers as required herein.

    D.   Avoid thresholds raised above floor levels at doors to trash and receiving rooms and at all doors intended for use by handicapped persons.

    E.   **Hardware Design for Specific Spaces:**

        1. **All Classroom doors shall have:**
            a. Electric strikes at each entry door for operation with a card access system.
            b. Cores with Best key override.
            c. Surface applied closer.

d. Door contacts and requests to exit.
e. Conduit and power for operation of electric hardware and data communication components.

2. **All Custodial Closet doors:**
   a. Core shall be individually keyed and keyed to the grandmaster system.

3. **Restroom doors:**
   a. Provide 10" wide stainless steel or lexan kickplate.
   b. Provide stainless steel push/pull hardware. Doors are to be non-locking unless approved otherwise by the FSU Project Manager.

4. **Mechanical Room doors:**
   a. Provide weather-stripping at heads and jams and surface applied door bottoms on machine room doors and other doors where excessive noise is anticipated.

PART 2 – MATERIALS

2.01 **General:** Hardware materials shall be designed and specified to withstand heavy use. All operable items on exterior doors shall have an integral manufacturer's applied finish. Stainless steel is the preferred finish for all hardware.

A. **Closers:** Non-handed closers are preferred. Russwin 2800 series, Sargent 1230 series, or LCN equivalent. EXCEPTION: Provide Corbin 110 series in residence halls.

B. **Hinges:** Provide only five-knuckle, stainless steel ball-bearing hinges. Provide heavy-duty ball bearing butts, with 4 ball bearing for exterior doors and interior doors over 3' wide and standard weight butts with 2 ball bearing for interior doors up to 3' wide.

2.02 **Existing Building:** Hardware added to existing buildings may utilize the same manufacturer as the existing hardware, at the discretion of the FSU Project Manager and the Key Shop. New hardware added to an existing building shall be compliant with accessibility codes.

2.03 **Exterior Doors:**

A. **Exit Devices:** Von Duprin 99 series shall be specified. **No substitutions allowed.**
   a. Single doors: Provide Von Duprin 99 panic device. Do not use mortise lock.
   b. Double doors: Use Von Duprin 99 series panic device with removable mullions. Rim type devices may be provided. Head and foot bolts shall be Russwin 298 with dustproof strike, or Sargent equivalent. Do not use mortise locks.
   c. Exit bolts shall have cylinder dogging devices.
   d. Exit bolts for narrow stile exterior doors shall be Von Duprin 55 series.
   e. Vertical rod exit bolts are not desired unless their use is dictated by specific functional requirements. When required, they should be concealed. **Surface mounted vertical rods for exit devices are not acceptable.**

B. **Hinges:** Exterior doors with security requirements shall have extra-heavy duty, non-removable pins to prevent the unauthorized removal of the door from the outside.

C. **Mullions:** Shall be aluminum or steel and key locked into the door frame; Contractor to provide Best cylinder.

D. **Narrow stile doors:** Hardware shall have the same functional requirements as specified for other exit bolts. All double doors shall have a removable rabbeted mullion and each door leaf shall not be less than 36 inches wide.

2.04 **Interior Doors:**

A. **Classroom or Laboratory Locks:** Provide mortise lockset Best 35H7J, Russwin ML2255, or Sargent 8237. Lockset must be capable of accepting Best keyway.

B. **Office and Corridor Locks:** Provide mortise lockset Best 35H7E, Russwin ML 2251, or Sargent 8205. Lockset must be capable of accepting Best keyway.

C. **Restrooms:** If approved for locks, provide Best mortise lock 34H7R, Russwin ML 2212, or Sargent 8203.

D. **Custodial Closets:** Provide Best mortise lock 35H7EW, Russwin ML 2257, or Sargent 8250.

E. **Hardware Trim:** Finish shall be Satin Chrome, US26D, or 626. Trim design shall be Best 15J, Russwin NSN, or Sargent WTL, cold forged escutcheon plate.

F. **Interior Double Doors:** Provide removal astragals for security.

G. **Interior Fire Doors:** Provide magnetic door holders actuated by the building fire alarm system, where appropriate and allowed by code.

PART 3 – EXECUTION

3.01 All hardware, including keyways, shall be included in the construction project cost borne by the contractor. Obtain each type and variety of door hardware from a single manufacturer when possible.

3.02 The hardware supplier shall furnish to the door manufacturer templates or the actual door hardware.

3.03 Conduct a pre-installation conference prior to beginning installation. The FSU Project Manager will coordinate and ensure that representatives from the FSU Key Shop, FSU Police, and ITS Departments are in attendance.

3.04 The Contractor shall install the cylinders. The Key Shop shall install the keyways and distribute keys to building users.

3.05   The Contractor shall supply and install temporary construction cores and provide construction personnel and the Owner with keys during construction.

PART 4 – KEYING

4.01   All door locks shall be on the University's proprietary keying system, i.e. BEST Removable Core, as specified by Facilities Operations and Maintenance Key Shop. **ALL** keyed locks shall be subject to the Zone Master as assigned to the facility at Florida State University. <u>**The University will accept no substitutes.**</u>

4.02   The Contractor shall provide extra copies of the approved hardware submittal and current floor plans, showing door numbers, to the FSU Project Manager for submittal to the Key Shop, who will develop the Final Keying Schedule and submit it to BEST. The Key Shop will determine the exact number and type of keyways prior to ordering.

4.03   All keying schemes shall be planned in coordination with the FSU Project Manager and the Key Shop. The process shall begin early enough to insure that systems (key plans, keyways, cores) are compatible with FSU's total Master Keying System, that adequate time is allotted to phasing, and that the FSU Key Shop retains control of <u>**ALL**</u> keys and cores.

4.04   Keyways should be purchased from BEST by the Contractor with stipulations that they be delivered directly to the FSU Key Shop. The Key Shop will install keyways and distribute keys.

4.05   In order to allow proper time for "pinning", the approved hardware submittal must be provided to the Key Shop (120) days prior to Substantial Completion for projects containing more than (250) doors, and (90) days prior to Substantial Completion for projects containing less than (250) doors.

4.06   With a minimum of two weeks' notice, projects having less than (12) doors, may obtain keyways directly from the Key Shop stored stock. Coordinate with the FSU Project Manager to ensure availability and timely installation.

4.07   NOTE: All doors with card access shall have cores with BEST key override.

END OF SECTION