

## **SECTION 087100**

### **DOOR HARDWARE**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

##### **1.2 SUMMARY**

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Sliding doors.
  - 3. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
  - 2. Electromechanical door hardware.
  - 3. Automatic operators.
- C. Related Sections:
  - 1. Division 08 Section "Hollow Metal Doors and Frames".
  - 2. Division 08 Section "Flush Wood Doors".
  - 3. Division 08 Section "Stile and Rail Wood Doors".
  - 4. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
  - 2. ICC/IBC - International Building Code.
  - 3. NFPA 70 - National Electrical Code.
  - 4. NFPA 80 - Fire Doors and Windows.
  - 5. NFPA 101 - Life Safety Code.
  - 6. NFPA 105 - Installation of Smoke Door Assemblies.
  - 7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
  - 8. State Building Codes, Local Amendments.

- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

### 1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
  2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
  3. Content: Include the following information:
    - a. Type, style, function, size, label, hand, and finish of each door hardware item.
    - b. Manufacturer of each item.
    - c. Fastenings and other pertinent information.
    - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    - e. Explanation of abbreviations, symbols, and codes contained in schedule.
    - f. Mounting locations for door hardware.
    - g. Door and frame sizes and materials.
    - h. Warranty information for each product.
  4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
    - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    - b. Complete (risers, point-to-point) access control system block wiring diagrams.
    - c. Wiring instructions for each electronic component scheduled herein.
  2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.
- B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
  - 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
  - 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- F. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.
- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
  - 1. Function of building, purpose of each area and degree of security required.
  - 2. Plans for existing and future key system expansion.
  - 3. Requirements for key control storage and software.
  - 4. Installation of permanent keys, cylinder cores and software.
  - 5. Address and requirements for delivery of keys.
- H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
  - 1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
  - 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.

3. Review sequence of operation narratives for each unique access controlled opening.
  4. Review and finalize construction schedule and verify availability of materials.
  5. Review the required inspecting, testing, commissioning, and demonstration procedures
- I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

#### 1.7 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

#### 1.8 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run

concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
  - 1. Structural failures including excessive deflection, cracking, or breakage.
  - 2. Faulty operation of the hardware.
  - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - 4. Electrical component defects and failures within the systems operation.
- C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

## **PART 2 - PRODUCTS**

### **2.1 SCHEDULED DOOR HARDWARE**

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
  - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Products furnished, but not installed, under this Section include the following. Coordinating, purchasing, delivering, and scheduling remain requirements of this Section.
  - 1. Permanent cylinders, cores, and keys to be installed by Owner.
- D. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

## 2.2 BUTT HINGES

- A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
1. Quantity: Provide the following hinge quantity:
    - a. Two Hinges: For doors with heights up to 60 inches.
    - b. Three Hinges: For doors with heights 61 to 90 inches.
    - c. Four Hinges: For doors with heights 91 to 120 inches.
    - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
  2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
    - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
    - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
  3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
    - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
    - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
  4. Hinge Options: Comply with the following:
    - a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.
  5. Manufacturers:
    - a. Hager Companies (HA) - BB Series, 5-knuckle.
    - b. Ives (IV) - 5BB Series, 5-knuckle.
    - c. McKinney (MK) - TA/T4A Series, 5-knuckle.

## 2.3 CONTINUOUS HINGES

- A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
1. Manufacturers:.

- a. Hager Companies (HA).
- b. Ives (IV).
- c. Pemko (PE).

## 2.4 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

- a. Pemko (PE) - EL-CEPT Series.
- b. Securitron (SU) - EL-CEPT Series.
- c. Von Duprin (VD) - EPT-10 Series.

- B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Manufacturers:

- a. Hager Companies (HA) - Quick Connect.
- b. McKinney (MK) - QC-C Series.
- c. Von Duprin (VD) - Connect.

## 2.5 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: Provide products conforming to ANSI/BHMA A156.3 and A156.16, Grade 1.

- 1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
- 2. Furnish dust proof strikes for bottom bolts.
- 3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
- 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
- 5. Manufacturers:



- a. Burns Manufacturing (BU).
  - b. Ives (IV).
  - c. Rockwood (RO).
- B. Coordinators: ANSI/BHMA A156.3 door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.
  - 1. Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Ives (IV).
    - c. Rockwood (RO).
- C. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
  - 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
  - 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
  - 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
  - 4. Pulls shall be provided with a 10" clearance from the finished floor on the push side to accommodate wheelchair accessibility.
  - 5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
  - 6. Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Ives (IV).
    - c. Rockwood (RO).

## 2.6 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
  - 1. Manufacturers:
    - a. Corbin Russwin Hardware (RU).
    - b. Sargent Manufacturing (SA).
    - c. Schlage (SC).

- B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
  - 1. Threaded mortise cylinders with rings and cams to suit hardware application.
  - 2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
  - 3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
  - 4. Tubular deadlocks and other auxiliary locks.
  - 5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
  - 6. Keyway: Manufacturer's Standard.
- C. Small Format Interchangeable Cores: Provide small format interchangeable cores (SFIC) as specified, core insert, removable by use of a special key; usable with other manufacturers' cylinders.
- D. Keying System: Each type of lock and cylinders to be factory keyed.
  - 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
  - 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
  - 3. New System: Key locks to a new key system as directed by the Owner.
- E. Key Quantity: Provide the following minimum number of keys:
  - 1. Change Keys per Cylinder: Two (2)
  - 2. Master Keys (per Master Key Level/Group): Five (5).
  - 3. Construction Keys (where required): Ten (10).
- F. Construction Keying: Provide temporary keyed construction cores.
- G. Key Registration List (Bitting List):
  - 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
  - 2. Provide transcript list in writing or electronic file as directed by the Owner.

## 2.7 KEY CONTROL

- A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.
  - 1. Manufacturers:
    - a. Lund Equipment (LU).
    - b. MMF Industries (MM).

- c. Telkee (TK).

## 2.8 MORTISE LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.

- 1. Manufacturers:

- a. Corbin Russwin Hardware (RU) - ML2000 Series.
- b. dormakaba BEST (BE) - 45H Series.
- c. Sargent Manufacturing (SA) - 8200 Series.

## 2.9 CYLINDRICAL LOCKS AND LATCHING DEVICES

- A. Cylindrical Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.2, Series 4000, Operational Grade 1 Certified Products Directory (CPD) listed cylindrical locksets. Listed manufacturers shall meet all functions and features as specified herein.

- 1. Manufacturers:

- a. Corbin Russwin Hardware (RU) - CLX3300 Series.
- b. dormakaba BEST (BE) - 9K Series.
- c. Sargent Manufacturing (SA) - 10X Line.

## 2.10 DEADLOCKS AND LATCHES

- A. Mortise Deadlocks, Small Case: ANSI/BHMA A156.36, Grade 1, small case mortise type deadlocks constructed of heavy gauge wrought corrosion resistant steel. Steel or stainless steel bolts with a 1" throw and hardened steel roller pins. Deadlocks to be products of the same source manufacturer and keyway as other specified locksets.

- 1. Manufacturers:

- a. dormakaba BEST (BE) - 48H Series.
- b. Corbin Russwin Hardware (RU) - DL4000 Series.
- c. Sargent Manufacturing (SA) - 4870 Series.

- B. Narrow Case Deadlocks and Deadlatches: ANSI/BHMA 156.13 Series 1000 Grade 1 narrow case deadlocks and deadlatches for swinging or sliding door applications. All functions shall be manufactured in a single sized case formed from 12 gauge minimum, corrosion resistant steel (option for fully stainless steel case and components). Provide minimum 2 7/8" throw laminated stainless steel bolt. Bottom rail deadlocks to have 3/8" diameter bolts.

- 1. Manufacturers:

- a. Adams Rite Manufacturing (AD) - MS1850S / MS1950 Series.

- b. Adams Rite Manufacturing (AD) - 4900 Series.

## 2.11 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
  - 1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
  - 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
  - 3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
  - 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
- B. Standards: Comply with the following:
  - 1. Strikes for Mortise Locks and Latches: BHMA A156.13.
  - 2. Strikes for Bored Locks and Latches: BHMA A156.2.
  - 3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
  - 4. Dustproof Strikes: BHMA A156.16.

## 2.12 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
  - 1. Exit devices shall have a five-year warranty.
  - 2. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
  - 3. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
  - 4. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
  - 5. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
  - 6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
    - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.

- b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
  - 7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
  - 8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
  - 9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
  - 10. Rail Sizing: Provide exit device rails factory sized for proper door width application.
  - 11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.
- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed exit devices. Listed manufacturers shall meet all functions and features as specified herein.
- 1. Provide exit devices with functions and features as follows:
    - a. Where required by code, provide knurling or abrasive coating on all levers leading to hazardous areas.
    - b. Meets UL and CUL Standard 10C Positive Pressure, Fire Test of Door Assemblies with levers that meet A117.1 Accessibility Code.
    - c. No catch points: addition of applied deflectors or other added components are not allowed.
    - d. No visible plastic.
    - e. Heavy duty end caps with flush and overlapping options made of stainless steel, brass, or bronze with architectural finishes.
    - f. Constructed of all stainless steel.
    - g. Stainless steel pullman type latch with deadlock feature.
    - h. Narrow or wide style exterior trim as specified in the hardware sets.
    - i. Center case adjustability on concealed vertical rod exit devices; single operation with hex key individually adjusts top or bottom latches. No retainer screws or clips required to maintain adjustment.
    - j. Ten-year limited warranty for mechanical features.
  - 2. Electromechanical exit devices shall have the following functions and features:
    - a. Universal Molex plug-in connectors that have standardized color-coded wiring and are field configurable in fail safe or fail secure and operate from 12vdc to 24vdc regulated.
    - b. Wire routing for all non-access control electromechanical functions and EcoFlex trim to be contained within the carrier of the device eliminating the need for cavities in doors to be drilled. Include a protective film so that wires don't get damaged if the rail needs to be removed.
    - c. EcoFlex or equivalent technology that reduces energy consumption up to 92% as certified by GreenCircle.

- d. Options to be available for request-to-exit or enter signaling, latchbolt and touchbar monitoring.
  - e. Field configurable electrified trim to fail-safe or fail-secure that operates from 12-24VDC.
3. Manufacturers:
- a. Corbin Russwin Hardware (RU) - PED4000 / PED5000 Series.
  - b. Sargent Manufacturing (SA) - PE80 Series.
  - c. Von Duprin (VD) - 35A/98 XP Series.

## 2.13 SURFACE DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
- 1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
  - 2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
  - 3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
  - 4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
  - 5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
  - 6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.
- 1. Heavy duty surface mounted door closers shall have a 30-year warranty.
  - 2. Manufacturers:
    - a. Corbin Russwin Hardware (RU) - DC6000 Series.
    - b. LCN Closers (LC) - 4040 Series.
    - c. Norton Rixson (NO) - 7500 Series.

- d. Sargent Manufacturing (SA) - 351 Series.
- C. Door Closers, Surface Mounted (Utility Grade): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, utility grade door closers with complete spring power adjustment, sizes 1 thru 6. Closers to be rack and pinion type, cast aluminum case construction, with adjustable backcheck, closing sweep, and latch speed control valves. Provide closer standard packed for regular, top-jamb, and parallel arm type mounting applications.
  - 1. Manufacturers:
    - a. LCN Closers (LC) - 1250 Series.
    - b. Norton Rixson (NO) - 1601 Series.
    - c. Sargent Manufacturing (SA) - 1131 Series.

## 2.14 OVERHEAD CONCEALED DOOR CLOSERS

- A. Door Closers, Overhead Concealed (Narrow Profile): ANSI/BHMA 156.4 Grade 1 Certified Products Directory (CPD) listed overhead concealed door closers designed for narrow profile frames and doors. Listed manufacturers shall meet all functions and features as specified herein.
  - 1. Provide overhead concealed doors closers with functions and features as follows:
    - a. Meets UL and CUL Standard 10C Positive Pressure, Fire Test of Door Assemblies and A117.1 Accessibility Code.
    - b. Single acting, offset hung with a cast iron body.
    - c. Fully concealed body in the frame head and track assembly in the door.
    - d. Separate and independent valves for closing speed and backcheck adjustments.
    - e. Five-year limited warranty.
  - 2. Manufacturers:
    - a. dormakaba (DO) - RTS88 Series.
    - b. LCN Closers (LC) - 2030 Series.
    - c. Norton Rixson (RF) - 91DCP Series.

## 2.15 ELECTROHYDRAULIC DOOR OPERATORS

- A. Electrohydraulic Door Operators (High Traffic): Provide ANSI/BHMA A156.19 Certified Products Directory (CPD) listed low energy operators that meet ANSI/BHMA A156.4 requirements and are UL listed for use on fire rated doors and UL10C certified that comply with requirements for the Americans with Disabilities Act (ADA). Operators shall be verified by GreenCircle to offer energy savings of 19% when compared to similar products to accommodate openings up 250 pounds and 48" wide. Provide accessories such as custom templates, special mounting brackets, spacers and drop plates as needed for proper installation. Operators shall accommodate openings up to

200 pounds and 48" wide. Listed manufacturers shall meet all functions and features as specified herein.

1. Provide operators with features as follows:
  - a. Non-handed with push and pull side mounting.
  - b. Operates as mechanical surface closer during close cycles, when door is opened manually or if power is off.
  - c. Activation by push button, hands-free or radio frequency devices.
  - d. On board electronics to collect usage and cycle count data to facilitate preventative maintenance/diagnostics.
  - e. Two-year limited warranty.
  - f. Wi-Fi interface where the operator is a secure, password protected WiFi hot spot with no connection to building's IT required.
    - 1) Simple setup with no app required.
    - 2) View status and make adjustments without removing the cover.
    - 3) Built-in logic to support single use restroom applications with no external relay boards, logic modules, position switches required.
  - g. Mounting backplate to simplify and speed up installation.
2. Operators shall have the following functionality:
  - a. Adjustable Hold Open: Amount of time a door will stay in the full open position after an activation.
  - b. Blow Open for Smoke Ventilation: Door opens when signal is received from alarm system allowing air or smoke to flow through opening. Door will stay open until signal from alarm system is stopped.
  - c. Infinite Hold Open: Door will hold open at set position until power is turned off.
  - d. Obstruction Detection: Door closes if it hits an obstruction while opening; door will reverse to open position if it hits an obstruction while closing. Door will stop once it hits an obstruction and will rest against the obstruction until removed.
  - e. Open Delay: Delays operator opening for locking hardware.
  - f. Overload Safety Shut-Off: After two minutes of receiving a door activation signal, inverter times out and door closes to prevent motor/inverter damage.
  - g. Presence Detector Input: Input for external sensor to detect presence at door open or close position only.
  - h. Push & Go: As the door is manually opened, the operator "senses" movement and opens door to the full-open position.
  - i. Selector Mode Switch: Off disables the signal inputs unless Blow Open is activated, on activates the signal inputs, hold open activates the unit (unless Blow Closed is activated) to the hold open position.
  - j. Vestibule Delay: When the wall switch is pressed, first door in vestibule will open. Second door will open once vestibule door delay has expired. Delay is adjustable.
3. Manufacturers:



- a. Gyrotech Nabco - GT500 Series.
- b. LCN (LC) - 4630/4640 Series.
- c. Norton Rixson (NO) - 6000 Series.

## 2.16 SURFACE MOUNTED CLOSER HOLDERS

- A. Multi-Point Closer Holders: ANSI/BHMA A156.15, Grade 1 multi-point closer holders designed to hold open fire or smoke rated doors until interruption of signal from fire alarm, smoke detector or remote release switch. Listed manufacturers shall meet all functions and features as specified herein.

- 1. Provide closer holders with functions and features as follows:
  - a. UL-cUL listed and UL10C compliant for positive pressure up to 3-hours.
  - b. Door closer body that meets ANSI/BHMA A156.4 Grade 1 requirements with adjustable spring power, closing and latching speeds and backcheck.
  - c. Selective hold open at any degree of opening beyond a pre-set hold open point, up to 175°, with a maximum allowable door opening of 180°.
  - d. Multiple operating voltages: 24VDC or 120VAC.
  - e. Push or pull side or double egress mounting.
  - f. Fail-safe operation: solenoid to de-energize in the event of a power failure.
  - g. Two-year limited warranty.
- 2. Manufacturers:
  - a. LCN Door Closers (LC) - 4040SEL Series
  - b. Norton Rixson (NO) - 7200 Series.
  - c. Sargent Manufacturing (SA) - 2300 Series.

- B. Electromagnetic Door Holders: ANSI A156.15, Grade 1 electromagnetic door holder/releases with a minimum 25 to 40 pounds holding power and fail-safe operation; power failure releases door to close.

- 1. Manufacturers:
  - a. LCN Door Closers (LC) - SEM7800 Series.
  - b. Norton Rixson (RF) - 900 Series.
  - c. Sargent Manufacturing (SA) - 1560 Series.

## 2.17 ARCHITECTURAL TRIM

- A. Door Protective Trim

- 1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
- 2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and

provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:
  - a. Stainless Steel: 300 grade, .050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:
  - a. Burns Manufacturing (BU).
  - b. Ives (IV).
  - c. Rockwood (RO).

## 2.18 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
  1. Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Ives (IV).
    - c. Rockwood (RO).
- C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
  1. Manufacturers:
    - a. Norton Rixson (RF).
    - b. Rockwood (RO).
    - c. Sargent Manufacturing (SA).

## 2.19 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
  - 1. National Guard Products (NG).
  - 2. Pemko (PE).
  - 3. Zero (ZE).

## 2.20 ELECTRONIC ACCESSORIES

- A. Push-Button Switches: Industrial grade momentary or alternate contact, back-lighted push buttons with stainless-steel switch enclosures. 12/24 VDC bi-color illumination suitable for either flush or surface mounting.
  - 1. Manufacturers:
    - a. Alarm Controls (AK) - TS Series.
    - b. Security Door Controls (SD) - 400 Series.
    - c. Securitron (SU) - PB Series.
- B. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include

wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.

1. Manufacturers:

- a. Sargent Manufacturing (SA) - 3280 Series.
- b. Security Door Controls (SD) - DPS Series.
- c. Securitron (SU) - DPS Series.

2.21 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.22 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- D. Typical finishes and materials, unless otherwise specified.
  - 1. Black Suede Powder Coat, Sprayed - BSP
  - 2. Satin Chrome, Plated - US26D / BHMA 626
  - 3. Dark Oxidized Satin Bronze, Equivalent - US10BE / BHMA 613E

**PART 3 - EXECUTION**

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

### 3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

### 3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
  - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
  - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
  - 2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
  - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
  - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
- E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

### 3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
  - 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

### 3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

### 3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

### 3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

### 3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
  - 1. Quantities listed are for each pair of doors, or for each single door.
  - 2. The supplier is responsible for handling and sizing all products.

3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

B. Manufacturer's Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. SU - Securitron
4. RO - Rockwood
5. AD - Adams Rite
6. SA - SARGENT
7. DO - dormakaba Arch Hdw
8. RF - Rixson
9. NO - Norton
10. OT - Other
11. AK - Alarm Controls

**Hardware Sets**

**Set: 1.0**

Doors: 153A

Description: Exterior Aluminum Pair - Panic Egress - Access Control Function x Auto-Unlock x Auto-Door x Intercom

2 Continuous Hinge	CFM__SL_ - HD1-M PT	PE
2 Electric Power Transfer	EL-CEPT	SU
1 Elec CVR Exit Device, NL/EL/RX/LX	53 55 56 72 ADPE8610 P106 x less pull	SA
1 Elec CVR Exit Device, EO/EL/RX	55 56 ADPE8610 EO	SA
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Small Format Inter Core	7300B	SA
2 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
2 Conc Overhead Stop	6-336	RF
1 Automatic Opener - Dual	D6061 (D) Push Side	NO
1 Threshold	253x3AFG FHSL14SS	PE
2 Wiring Harness - Frame	QC-C3000P	MK
2 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Access Control Reader	Quantum Pixel RFID	OT
2 Position Switch	DPS-M-GY	SU

2 ADA Switch - Wall Mount	505	NO
1 Door Release Button	TS-18	AK
1 Wiring Diagram	Elevation & Point to Point	OT
1 Seals & Astragals	By Aluminum Door Mfr.	OT
1 Intercom System	By Security Contractor	OT

Notes:

When locked, entry by valid input at reader / remote release by intercom to retract latches, or manual key.

Free egress at all times.

Push / Pull operation as required by electronic auto-unlock via access control system.

Door position switches to monitor opening status. Exit devices have integral RX feature to signal egress.

Auto-Door system must be integrated with electronic latching hardware.

Auto operation by ADA switches.

Exterior ADA switch is controlled by latch monitor (LX) feature in exit device and to operate only when latch is in retracted position / unlocked.

Vestibule dual ADA switch will always trigger latch retraction for assisted egress when locked.

Consolidated power supply by security contractor. Coordinate with electrical and security contractors.

**Set: 2.0**

Doors: 148B, 148C, 148D

Description: Exterior Aluminum Pair - Panic Egress - Keyed Entry x Push/Pull Function x Closers w/ Stop

2 Continuous Hinge	CFM__SL_ - HD1-M	PE
1 CVR Exit Device, CD/NL Pull	16 ADPE8610 P106 Less Pull	SA
1 CVR Exit device, CD/Exit Only	16 ADPE8610 EO	SA
3 Mortise Cylinder	72 40 series x length/cam as req'd	SA
3 Small Format Inter Core	7300B	SA
2 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
2 Closer w/ Stop	351 CPS	SA
2 Closer Mtg Bracket	125V if req'd	SA
2 Closer Mtg Plate	351D	SA
2 Closer Stop Spacer	581 if req'd	SA
2 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
2 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

Notes:

Entry by key only (active leaf). Free egress (both leaves) at all times.



Push / Pull operation as needed by exit device dogging with lock cylinder in panic bar.  
Door position switches to monitor opening status.

**Set: 3.0**

Doors: 109A, 109B

Description: Exterior Aluminum Pair - Panic Egress - Keyed Entry x Push/Pull Function x Closers w/ Stop & Hold-Open

2 Continuous Hinge	CFM__SL_ - HD1-M	PE
1 CVR Exit Device, CD/NL Pull	16 ADPE8610 P106 Less Pull	SA
1 CVR Exit device, CD/Exit Only	16 ADPE8610 EO	SA
2 Mortise Cylinder	72 40 series x length/cam as req'd	SA
3 Small Format Inter Core	7300B	SA
2 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
2 Closer w/ Stop & Hold-Open	351 CPSH	SA
2 Closer Mtg Bracket	125V if req'd	SA
2 Closer Mtg Plate	351D	SA
2 Closer Stop Spacer	581 if req'd	SA
2 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
2 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

## Notes:

Entry by key only (active leaf). Free egress (both leafs) at all times.

Push / Pull operation as needed by exit device dogging with lock cylinder in panic bar.  
Door position switches to monitor opening status.

**Set: 4.0**

Doors: 130B

Description: Exterior Aluminum - Panic Egress - Access Control Function x Auto-Unlock x Intercom

1 Continuous Hinge	CFM__SL_ - HD1-M PT	PE
1 Electric Power Transfer	EL-CEPT	SU
1 Elec CVR Exit Device, NL/EL/RX	55 56 72 ADPE8610 P106 x less pull	SA
1 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
1 Closer w/ Stop	351 CPS	SA
1 Closer Mtg Bracket	125V if req'd	SA
1 Closer Mtg Plate	351D	SA

1 Closer Stop Spacer	581 if req'd	SA
1 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
1 Wiring Harness - Frame	QC-C3000P	MK
1 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Access Control Reader	Quantum Pixel RFID	OT
1 Position Switch	DPS-M-GY	SU
1 Door Release Button	TS-18	AK
1 Wiring Diagram	Elevation & Point to Point	OT
1 Seals & Astragals	By Aluminum Door Mfr.	OT
1 Intercom System	By Security Contractor	OT

Notes:

When locked, entry by valid input at reader / remote release by intercom to retract latch, or manual key.

Free egress at all times.

Push / Pull operation as required by electronic auto-unlock via access control system.

Door position switch to monitor opening status. Exit device has RX option to signal egress.

Consolidated power supply by security contractor. Coordinate with electrical and security contractors.

**Set: 5.0**

Doors: 201A, 201B

Description: Exterior Aluminum Pair - Lockable Push / Pull Function x Closers w/ Stop & Hold-Open

2 Continuous Hinge	CFM__SL_ - HD1-M	PE
1 Auto Flush Bolt Set	MS2180	AD
1 Mortise Deadlock	MS1850S	AD
1 Egress Lever	4550	AD
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
2 Push Bar	RM2312 Mtg-Type 12XHD	RO
2 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
2 Closer w/ Stop & Hold-Open	351 CPSH	SA
2 Closer Mtg Bracket	125V if req'd	SA
2 Closer Mtg Plate	351D	SA
2 Closer Stop Spacer	581 if req'd	SA
2 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
2 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

Notes: Door position switches to monitor opening status if required.

**Set: 6.0**

Doors: 605B, 606B

Description: Exterior Aluminum Pair - Inswing - Panic Egress - Passage Function

2 Continuous Hinge	CFM__SL_ - HD1-M	PE
2 CVR Exit Device, Passage	CPC WH NB ADPE8615 NEMI x SPAR NC-E35	SA
2 Conc Overhead Stop	6-336	RF
2 Closer, Tri-Mount	351 UO	SA
2 Sweep	308APK TKSP	PE
1 Threshold	171A MSES25SS	PE
1 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

Notes: Door position switches to monitor opening status if required.

**Set: 7.0**

Doors: 106

Description: Exterior Aluminum - Panic Egress - Keyed Entry x Push/Pull Function x Closer w/ Stop

1 Continuous Hinge	CFM__SL_ - HD1-M	PE
1 Rim Exit Device, Exit Only/CD	LC 16 PE8510 EO	SA
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Small Format Inter Core	7300B	SA
1 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
1 Closer w/ Stop	351 CPS	SA
1 Closer Mtg Bracket	125V if req'd	SA
1 Closer Mtg Plate	351D	SA
1 Closer Stop Spacer	581 if req'd	SA
1 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
1 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

Notes:

Entry by key only (active leaf). Free egress (both leaves) at all times.

Push / Pull operation as needed by exit device dogging with lock cylinder in panic bar.

Door position switches to monitor opening status.

**Set: 8.0**

Doors: 102C, 113A

Description: Exterior Aluminum - Panic Egress - Locking Push/Pull Function x Closer w/ Stop

1 Continuous Hinge	CFM__SL_ - HD1-M	PE
1 Mortise Deadlock	MS1850S	AD
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Thumbturn Cylinder	4066	AD
1 Push Bar	RM2312 Mtg-Type 12XHD	RO
1 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
1 Closer w/ Stop	351 CPS	SA
1 Closer Mtg Bracket	125V if req'd	SA
1 Closer Mtg Plate	351D	SA
1 Closer Stop Spacer	581 if req'd	SA
1 Threshold	253x3AFG FHSL14SS	PE
1 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

Notes: Door position switch to monitor opening status if required.

**Set: 9.0**

Doors: 622B, 627B, 627D

Description: Exterior Aluminum - Lockable Push / Pull Function x Closer w/ Stop

1 Continuous Hinge	CFM__SL_ - HD1-M	PE
1 Egress Lever	4550	AD
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Push Bar	RM2312 Mtg-Type 12XHD	RO
1 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
1 Closer w/ Stop	351 CPS	SA
1 Closer Mtg Bracket	125V if req'd	SA
1 Closer Mtg Plate	351D	SA
1 Closer Stop Spacer	581 if req'd	SA
1 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
1 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

**Set: 10.0**

Doors: 622A

Description: Exterior Aluminum - Inswing - Lockable Push / Pull Function x Closer x OH Stop

1 Continuous Hinge	CFM__SL_ - HD1-M	PE
1 Egress Lever	4550	AD
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Push Bar	RM2312 Mtg-Type 12XHD	RO
1 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
1 Conc Overhead Stop	6-336	RF
1 Closer, Tri-Mount	351 UO	SA
1 Sweep	308APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
1 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

**Set: 11.0**

Doors: 146, 156A, 157A

Description: Exterior HM - Panic Egress Pair - Keyed Entry Function - Monitored - Fire Rated

2 Continuous Hinge	CFM__SL_ - HD1-M PT	PE
2 Electric Power Transfer	EL-CEPT	SU
1 Mullion, Fire Rated	12-980	SA
1 Rim Exit Device, RX/NL Pull	12 55 72 PE8804 FSL	SA
1 Rim Exit Device, RX/Exit Only	12 55 PE8810 EO	SA
2 Closer w/ Stop	351 CPS	SA
1 Rain Guard	346A TKSP	PE
1 Perimeter Weatherstrip	303APKTST	PE
2 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
2 Position Switch	DPS-M-GY	SU
1 Wiring Diagram	Elevation & Point to Point	OT

Notes:

Entry by key only (active leaf). Free egress (both leaves) at all times.

Door position switches to monitor opening status. Exit devices have RX option to signal egress.

Coordinate with electrical and security contractors.

**Set: 12.0**

Doors: 147B, 147C, 156B, 157B, 158B, 159A

Description: Exterior HM - Panic Egress Pair - Exit Only Function - Monitored - Fire Rated

2 Continuous Hinge	CFM__SL_ - HD1-M PT	PE
2 Electric Power Transfer	EL-CEPT	SU
1 Mullion, Fire Rated	12-980	SA
2 Rim Exit Device, RX/Exit Only	12 55 PE8810 EO	SA
2 Closer w/ Stop	351 CPS	SA
1 Rain Guard	346A TKSP	PE
1 Perimeter Weatherstrip	303APKTST	PE
2 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
2 Position Switch	DPS-M-GY	SU
1 Wiring Diagram	Elevation & Point to Point	OT

Notes:

No entry. Free egress (both leafs) at all times.

Door position switches to monitor opening status. Exit devices have RX option to signal egress.

Coordinate with electrical and security contractors.

**Set: 13.0**

Doors: 628A, 628B

Description: Exterior HM - Panic Egress Pair - Inswing - Exit Only Function - Monitored

8 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
2 CVR Exit Device, Exit Only	CPC WH NB MDPE8610 EO x SPAR NC-E35	SA
2 Conc Overhead Stop	6-336	RF
2 Closer, Tri-Mount	351 UO	SA
2 Applied Astragal	18041CNB TKSP	PE
1 Perimeter Gasketing	S773D	PE
1 Rain Guard	346A TKSP	PE
1 Perimeter Weatherstrip	303APKTST	PE
2 Sweep	308APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
2 Position Switch	DPS-M-GY	SU

Notes:

No entry. Free egress (both leafs) at all times.

Door position switches to monitor opening status if required.

Coordinate with electrical and security contractors.

**Set: 14.0**

Doors: 628C

Description: Exterior HM - Panic Egress - Inswing - Classroom Function x Closer x OH Stop

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Rim Exit Device, Classroom	CPC WH 64 72 8813 ETL x SPAR NC-E35	SA
1 Conc Overhead Stop	6-336	RF
1 Closer, Tri-Mount	351 UO	SA
1 Perimeter Weatherstrip	303APKTST	PE
1 Sweep	308APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
1 Position Switch	DPS-M-GY	SU

Notes: Door position switch to monitor opening status if required.

**Set: 15.0**

Doors: 649A, 649B

Description: Exterior HM - Panic Egress - Inswing - Classroom Function x Closer x HW Hinges

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Rim Exit Device, Classroom	CPC WH 64 72 8813 ETL x SPAR NC-E35	SA
1 Closer, Tri-Mount	351 UO	SA
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Sweep	308APK TKSP	PE
1 Threshold	171A MSES25SS	PE
1 Position Switch	DPS-M-GY	SU

Notes: Door position switch to monitor opening status if required.

**Set: 16.0**

Doors: 135G, 144B, 145B, 147A, 154A, 154B, 158A, 159B, 159C

Description: Exterior HM - Panic Egress - Keyed Entry Function - Monitored - Fire Rated

1 Continuous Hinge	CFM__SL_ - HD1-M PT	PE
1 Electric Power Transfer	EL-CEPT	SU

1 Rim Exit Device, RX/NL Pull	12 55 72 PE8804 FSL	SA
1 Closer w/ Stop	351 CPS	SA
1 Rain Guard	346A TKSP	PE
1 Perimeter Weatherstrip	303APKTST	PE
1 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
1 Position Switch	DPS-M-GY	SU

Notes:

Entry by key only. Free egress at all times.

Door position switch to monitor opening status. Exit device has RX option to signal egress.

Coordinate with electrical and security contractors.

**Set: 17.0**

Doors: 151, 2203, 763

Description: Exterior HM - Storeroom Function - Monitored

3 HW Hinge, Full Mortise	T4A3386 NRP (size per spec)	MK
1 Storeroom Lock	72 8204 LNMI	SA
1 Closer w/ Stop	351 CPS	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Rain Guard	346A TKSP	PE
1 Perimeter Weatherstrip	303APKTST	PE
1 Sweep	345APK TKSP	PE
1 Threshold	171A MSES25SS	PE
1 Position Switch	DPS-M-GY	SU

Notes: Door position switch to monitor opening status if required.

**Set: 18.0**

Doors: 2204A, 627

Description: Exterior HM - Utility Function - Roof Access

3 HW Hinge, Full Mortise	T4A3386 NRP (size per spec)	MK
1 Institutional Lock	72 8217 LNMI	SA
2 Small Format Inter Core	7300B	SA
1 Closer w/ Stop	351 CPS	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Rain Guard	346A TKSP	PE
1 Perimeter Weatherstrip	303APKTST	PE



1 Sweep	345APK TKSP	PE
1 Threshold	253x3AFG FHSL14SS	PE
1 Position Switch	DPS-M-GY	SU

Notes: Door position switch to monitor opening status if required.

**Set: 19.0**

Doors: 635

Description: Exterior HM - Privacy Function w/ Indicator x Closer (RR)

4 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Privacy Lock	LB V21 8265 LNMI	SA
1 Closer, Tri-Mount	351 UO	SA
1 Mop Plate	K1050 4" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Sweep	308APK TKSP	PE
1 Threshold	171A MSES25SS	PE
1 Coat Hook	RM811	RO

**Set: 20.0**

Doors: 636, 637

Description: Exterior HM - Push / Pull Function - Lockable - Multi Use Restroom

3 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Mortise Deadlock	4875	SA
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Push Plate	70C / 70E as req'd	RO
1 Straight Pull	RM2200-12 Mtg-Type 12XHD	RO
1 Closer, Tri-Mount	351 UO	SA
1 Mop Plate	K1050 4" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Sweep	308APK TKSP	PE
1 Threshold	171A MSES25SS	PE

**Set: 21.0**

Doors: 605A, 606A

Description: Interior Aluminum Pair - Panic Egress - Inswing - Classroom Function x Closers w/ Stop

2 Continuous Hinge	CFM__SL_ - HD1-M	PE
2 CVR Exit Device, Classroom	72 NB ADPE8613 NEMI	SA
2 Closer w/ Stop	351 CPS	SA
2 Closer Mtg Bracket	125V if req'd	SA
2 Closer Mtg Plate	351D	SA
2 Closer Stop Spacer	581 if req'd	SA
2 Sweep	308APK TKSP	PE
1 Interior Threshold	271A FHSL14SS	PE
2 Position Switch	DPS-M-GY	SU
1 Seals & Astragals	By Aluminum Door Mfr.	OT

Notes:

Lever trims can be locked / unlocked as needed for entry to Event Lawn.

Free egress into Building at all times.

Door position switches to monitor opening status if required.

**Set: 22.0**

Doors: 153B

Description: Interior Aluminum Pair - Push / Pull Function x Auto-Door

2 Continuous Hinge	CFM__SL_ - HD1-M	PE
2 Push Bar	PE8893	SA
2 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
1 Automatic Opener - Dual	D6061 (D) Push Side	NO
1 Interior Threshold	271A FHSL14SS	PE
1 ADA Switch - Jamb/Mullion Mount	503	NO
1 Dual ADA Switch	504 (vestibule)	NO
1 Seals & Astragals	By Aluminum Door Mfr.	OT

**Set: 23.0**

Doors: 107B

Description: Interior Aluminum Pair - Push / Pull Function x Closers w/ Hold-Open

2 Continuous Hinge	CFM__SL_ - HD1-M	PE
2 Push Bar	PE8893	SA
2 Offset Pull	RM2230-48 Mtg-Type 12XHD	RO
2 Closer w/ Stop & Hold-Open	351 CPSH	SA
2 Closer Mtg Bracket	125V if req'd	SA

2 Closer Mtg Plate	351D	SA
2 Closer Stop Spacer	581 if req'd	SA
1 Interior Threshold	271A FHSL14SS	PE
1 Seals & Astragals	By Aluminum Door Mfr.	OT

**Set: 24.0**

Doors: 621

Description: RFID Access Control Function - Panic Egress Pair x Closers w/ Stop

8 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
2 Concealed Vert Rod Exit, Exit Only	NB MDPE8610 EO	SA
1 Hotel Exit Device Trim	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
2 Closer w/ Stop	351 CPS	SA
2 Silencer	608/608CA/609 as req'd	RO

Notes:

Entry to Fitness by valid input at lever trim reader or manual key (active leaf).  
Free egress (both leafs) at all times.

**Set: 25.0**

Doors: 321B, 342, 343, 344, 403B, 404B, 440, 442, 443, 445, 623, 645, 652

Description: RFID Access Control Function - Panic Egress x Closer w/ Hold-Open x HW Hinges

4 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Rim Exit Device, Exit Only	PE8810 EO	SA
1 Hotel Exit Device Trim	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Hold-Open	351 H	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

Notes:

Entry to Meeting / Banquet areas by valid input at RFID trim or manual key. Free egress at all times.

**Set: 26.0**

Doors: 317B, 413A, 415B, 415C

Description: RFID Access Control Function - Panic Egress x Closer w/ Stop & Hold-Open

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Rim Exit Device, Exit Only	PE8810 EO	SA
1 Hotel Exit Device Trim	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Concealed Closer w/ Hold-Open	91HDGP 90A x Stop Block	RF
3 Silencer	608/608CA/609 as req'd	RO

Notes:

Entry to Meeting / Banquet areas by valid input at RFID trim or manual key. Free egress at all times.

**Set: 27.0**

Doors: 305A, 305B, 306A, 306B, 308B, 310A, 403A, 404A, 415A, 419A, 420A, 420B, 421A, 421B, 422A, 422B, 423A, 423B, 424A, 424B, 425A, 609, 625, 626, 627A

Description: Panic Egress Pair - Access Control Function x Electronic Hold-Open Closers - Fire Rated

6 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
2 Elec HW Hinge, Full Mortise	T4A3786 QC (size per spec)	MK
1 Elec SVR Exit Device, EL/Classroom	12 56 72 NBPE8710 P313 less pull	SA
1 Elec SVR Exit Device, EL/Exit Only	12 56 NBPE8710 EO	SA
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Small Format Inter Core	7300B	SA
2 Straight Pull (BTB)	RM2200-48 Mtg-Type 5HD	RO
2 Conc Overhead Stop	6-336	RF
2 Electronic Hold-Open Closer	7233MPSO	NO
1 Astragal	S772D	PE
1 Perimeter Gasketing	S773D	PE
2 Wiring Harness - Frame	QC-C3000P	MK
2 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Access Control Reader	Quantum Pixel RFID	OT
1 Wiring Diagram	Elevation & Point to Point	OT

Notes:

Entry (active leaf only) by valid input at reader or manual key when locked. Free egress (both leaves) at all times. Thumbturn can be mechanically unlocked.

Push / Pull operation as needed by timed unlock via access control system (both leafs).  
 Locate door pull(s) to avoid interference with lock cylinder on active leaf.  
 Doors can be placed into 90 deg. hold open position with electronic hold-open closers.  
 Electronic door closers must be integrated with building fire alarm system.  
 Consolidated power supply by security contractor. Coordinate with electrical, alarm and security contractors.

**Set: 28.0**

Doors: 317A, 319A, 319B, 321A, 324A, 324B, 325A, 326A, 326B, 326C, 328A

Description: Panic Egress Pair - Access Control Function x Closers w/ Stop & Hold-Open

6 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
2 Elec HW Hinge, Full Mortise	T4A3786 QC (size per spec)	MK
1 Elec SVR Exit Device, EL/Classroom	12 56 72 NBPE8710 P313 less pull	SA
1 Elec SVR Exit Device, EL/EO	56 NBPE8710 EO	SA
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Small Format Inter Core	7300B	SA
2 Straight Pull (BTB)	RM2200-48 Mtg-Type 5HD	RO
2 Concealed Closer w/ Hold-Open	91HDCP 90A x Stop Block	RF
1 Astragal	S772D	PE
2 Silencer	608/608CA/609 as req'd	RO
2 Wiring Harness - Frame	QC-C3000P	MK
2 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Access Control Reader	Quantum Pixel RFID	OT
1 Wiring Diagram	Elevation & Point to Point	OT

## Notes:

Entry (active leaf only) by valid input at reader or manual key when locked.  
 Free egress (both leafs) at all times. Thumbturn can be mechanically unlocked  
 Push / Pull operation as needed by timed unlock via access control system (both leafs).  
 Locate door pull(s) to avoid interference with lock cylinder on active leaf.  
 Consolidated power supply by security contractor. Coordinate with electrical and security contractors.

**Set: 29.0**

Doors: 144A, 145A

Description: Panic Egress Pair - Access Control Function x Closers w/ Stop - Fire Rated

5 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
-----------------------	--------------------------------------	----

1 Elec Hinge, Full Mortise	TA2714 QC (size per spec)	MK
1 SVR Exit Device, Exit Only	12 NBPE8710 EO	SA
1 Elec SVR Exit Device, EL/RX/Keyed Lever	55 56 72 NBPE8713 WEMI	SA
2 Closer w/ Stop	351 CPS	SA
1 Astragal	S772D	PE
1 Perimeter Gasketing	S773D	PE
1 Wiring Harness - Frame	QC-C3000P	MK
1 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Access Control Reader	Quantum Pixel RFID	OT
2 Position Switch	DPS-M-GY	SU
1 Wiring Diagram	Elevation & Point to Point	OT

## Notes:

Entry by valid input at reader or manual key (active leaf). Free egress (both leafs) at all times.  
 Door position switches to monitor opening status if required.  
 Consolidated power supply by security contractor. Coordinate with electrical and security contractors.

**Set: 30.0**

Doors: 617A

Description: Panic Egress Pair - Access Control Function x Closers w/ Stop

7 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Elec Hinge, Full Mortise	TA2714 QC (size per spec)	MK
1 Elec SVR Exit Device, EL/RX/Keyed Lever	55 56 72 NBPE8713 WEMI	SA
1 SVR Exit Device, Exit Only	NBPE8710 EO	SA
2 Closer w/ Stop	351 CPS	SA
2 Silencer	608/608CA/609 as req'd	RO
1 Wiring Harness - Frame	QC-C3000P	MK
1 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Access Control Reader	Quantum Pixel RFID	OT
1 Position Switch	DPS-M-GY	SU
1 Wiring Diagram	Elevation & Point to Point	OT

## Notes:

Entry by valid input at reader or manual key. Free egress (both leafs) at all times..  
 Door position switches to monitor opening status if required.  
 Consolidated power supply by security contractor. Coordinate with electrical and security contractors.

**Set: 31.0**

Doors: 329D, 350, 351A, 351B, 351C, 352A, 352B, 354A, 354B, 450, 451A, 451B, 452A, 452B, 454A, 454B, 647, 648A, 648B, 650A, 650B, 651A, 651B

Description: Panic Egress Pair - Classroom Function x Closers - Fire Rated

6 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
2 CVR Exit Device, Classroom	12 72 NB MDPE8613 WEMI	SA
2 Closer, Tri-Mount	351 UO	SA
2 Door Stop	400 series as req'd	RO
1 Astragal	S772D	PE
1 Perimeter Gasketing	S773D	PE

**Set: 32.0**

Doors: 401B

Description: Panic Egress Pair - Classroom Function x Closers x Magnetic Hold-Opens - Fire Rated

8 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
2 CVR Exit Device, Classroom	12 72 NB MDPE8613 WEMI	SA
2 Closer, Tri-Mount	351 UO	SA
2 Electromagnetic Holder	99xM for wall condition	RF
1 Astragal	S772D	PE
1 Perimeter Gasketing	S773D	PE

Notes:

Magnetic hold-opens must be integrated with building fire alarm system and release in alarmed state.

**Set: 33.0**

Doors: 278C

Description: Panic Egress Pair - Keyed Entry Function x Closers w/ Stop & Hold-Open

8 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 SVR Exit Device, Keyed Lever	72 NBPE8713 WEMI	SA
1 SVR Exit Device, Exit Only	NBPE8710 EO	SA
1 Small Format Inter Core	7300B	SA
2 Concealed Closer w/ Hold-Open	91HDCP 90A x Stop Block	RF

1 Astragal	S772D	PE
2 Silencer	608/608CA/609 as req'd	RO

## Notes:

Entry by manual key (active leaf) when locked. Free egress (both leafs) at all times.

Active leaf lever can be mechanically unlocked. Install door closers for 90 deg. stop/hold-open.

**Set: 34.0**

Doors: 253, 279, 280

Description: Panic Egress Pair - Keyed Entry Function x Closers w/ Stop - Fire Rated

8 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 SVR Exit Device, Exit Only	12 NBPE8710 EO	SA
1 SVR Exit Device, Storeroom	12 72 NBPE8706 WEMI	SA
2 Closer w/ Stop	351 CPS	SA
1 Astragal	S772D	PE
1 Perimeter Gasketing	S773D	PE

Notes: Entry by manual key (active leaf) when locked. Free egress (both leafs) at all times.

**Set: 35.0**

Doors: 241A, 241C

Description: Panic Egress Pair - Classroom Function x Closers w/ Stop & Hold-Open (MD)

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
2 CVR Exit Device, Classroom	72 NB MDPE8613 WEMI	SA
2 Closer w/ Stop & Hold-Open	351 CPSH	SA
2 Kick Plate	K1050 10" height x CSK x BEV	RO
2 Silencer	608/608CA/609 as req'd	RO

## Notes:

Entry by key when locked. Free egress at all times. Lever trims can be locked / unlocked as needed.

**Set: 36.0**

Doors: 329A, 329B, 412B, 428

Description: Panic Egress Pair - Classroom Function x Closers w/ Stop & Hold-Open x HW Hinges (WD)



8 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 SVR Exit Device, Keyed Lever	72 NBPE8713 WEMI	SA
1 SVR Exit Device, Exit Only	NBPE8710 EO	SA
2 Closer w/ Stop & Hold-Open	351 CPSH	SA
2 Silencer	608/608CA/609 as req'd	RO

## Notes:

Entry by key when locked. Free egress at all times. Lever trims can be locked / unlocked as needed.

**Set: 37.0**

Doors: 327A, 327B

Description: Panic Egress - Access Control Function x Closer w/ Stop & Hold-Open

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Elec HW Hinge, Full Mortise	T4A3786 QC (size per spec)	MK
1 Mortise Exit Device, Storeroom	56 72 PE8904 less pull	SA
1 Small Format Inter Core	7300B	SA
1 Offset Pull (BTB)	RM2230-48 Mtg-Type 16	RO
1 Closer w/ Stop & Hold-Open	351 CPSH	SA
3 Silencer	608/608CA/609 as req'd	RO
1 Wiring Harness - Frame	QC-C3000P	MK
1 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Access Control Reader	Quantum Pixel RFID	OT
1 Wiring Diagram	Elevation & Point to Point	OT

## Notes:

Entry by valid input at reader to retract latch or manual key. Free egress at all times.

Push / Pull operation as needed by timed unlock via access control system.

Locate door pull to avoid interference with lock cylinder.

Consolidated power supply by security contractor. Coordinate with electrical and security contractors.

**Set: 38.0**

Doors: 158C

Description: Panic Egress - Storeroom Function - Fire Rated

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Rim Exit Device, Storeroom	12 72 PE8804 WEMI	SA

1 Small Format Inter Core	7300B	SA
1 Closer w/ Stop	351 CPS	SA
1 Perimeter Gasketing	S773D	PE

**Set: 39.0**

Doors: 349A, 349B, 449A, 449B

Description: Panic Egress - Classroom Function x HW Hinges - Fire Rated

4 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Mortise Exit Device, Classroom	12 72 PE8913 WEMI	SA
1 Closer, Tri-Mount	351 UO	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Interior Threshold	271A FHSL14SS	PE

Notes: Lever trim locked/unlocked by key.

**Set: 40.0**

Doors: 281, 353A, 353B, 453A, 453B

Description: Panic Egress - Classroom Function x HW Hinges - Fire Rated

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Mortise Exit Device, Classroom	12 72 PE8913 WEMI	SA
1 Small Format Inter Core	7300B	SA
1 Closer, Tri-Mount	351 UO	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Interior Threshold	271A FHSL14SS	PE

Notes: Lever trim locked/unlocked by key.

**Set: 41.0**

Doors: 278A, 278B

Description: Panic Egress - Classroom Function - Fire Rated

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as	MK
-----------------------	-------------------------------	----

	req'd)	
1 Mortise Exit Device, Classroom	12 72 PE8913 WEMI	SA
1 Small Format Inter Core	7300B	SA
1 Closer, Tri-Mount	351 UO	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Interior Threshold	271A FHSL14SS	PE

Notes: Lever trim locked/unlocked by key.

**Set: 42.0**

Doors: 610A, 610B, 611A, 611B, 612A, 612B, 613A, 613B, 614A, 614B, 615A, 615B

Description: Panic Egress - Classroom Function x Closer w/ Stop & Hold-Open

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Mortise Exit Device, Classroom	72 PE8913 WEMI	SA
1 Closer w/ Stop & Hold-Open	351 CPSH	SA
3 Silencer	608/608CA/609 as req'd	RO

Notes: Lever trim locked/unlocked by key.

**Set: 43.0**

Doors: 308A, 310B, 316A, 316B, 318A, 318B, 320A, 320B

Description: Panic Egress - Classroom Function x Concealed Closer

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Mortise Exit Device, Classroom	72 PE8913 WEMI	SA
1 Concealed Closer w/ Hold-Open	91HDCP 90A x Stop Block	RF
3 Silencer	608/608CA/609 as req'd	RO

Notes: Lever trim locked/unlocked by key.

**Set: 44.0**

Doors: 276, 4427, T-1, T-11

Description: Panic Egress - Passage Function x HW Hinges - Fire Rated

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as	MK
--------------------------	--------------------------------	----

	req'd)	
1 Rim Exit Device, Passage	12 PE8815 WEMI	SA
1 Closer, Tri-Mount	351 UO	SA
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Interior Threshold	271A FHSL14SS	PE

**Set: 45.0**

Doors: 646A, 646B

Description: Panic Egress - Passage Function x HW Hinges - Fire Rated

4 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Rim Exit Device, Passage	12 PE8815 WEMI	SA
1 Closer, Tri-Mount	351 UO	SA
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Interior Threshold	271A FHSL14SS	PE

**Set: 46.0**

Doors: 617B

Description: Alarmed Panic Egress - Passage Function - Fire Rated

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Elec Hinge, Full Mortise	TA2714 QC (size per spec)	MK
1 Rim Exit Device, Alarmed, Passage	AL 12 54 PE8815 WEMI	SA
1 Mortise Cylinder	72 40 series x length/cam as req'd	SA
1 Closer w/ Stop	351 CPS	SA
1 Perimeter Gasketing	S773D	PE
1 Wiring Harness - Frame	QC-C3000P	MK
1 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Alarm Wiring Harness	546	SA
1 Access Control Reader	Quantum Pixel RFID	OT
1 Wiring Diagram	Elevation & Point to Point	OT

Notes:

Entry to Fitness Lobby at all times. RX switch in lever trim disables push side alarm.  
Authorized free egress to Corridor by valid input at reader to disable alarm in panic bar.  
Unauthorized free egress without reader input will trigger alarm in panic device.

Alarm on/off/reset by lock cylinder in panic bar.  
Consolidated power supply by security contractor. Coordinate with electrical and security contractors.

**Set: 47.0**

Doors: 122, 123

Description: Access Control Function Pair - Inswing - Fire Rated

5 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Elec Hinge, Full Mortise	TA2714 QC (size per spec)	MK
1 Flush Bolt w/Fire Bolt	2848	RO
1 Fail Secure Lock	RX 72 8271-xxV LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Gravity Coordinator	576	RO
2 Closer, Tri-Mount	351 UO	SA
1 Metal Edge Astragal	By Door Mfr.	OT
1 Perimeter Gasketing	S773D	PE
1 Wiring Harness - Frame	QC-C3000P	MK
1 Wiring Harness - Door	QC-C___P x Length Required	MK
1 Access Control Reader	Quantum Pixel RFID	OT
1 Wiring Diagram	Elevation & Point to Point	OT

Notes:

Entry by valid input at reader to release lever or manual key. Free egress at all times.  
Consolidated power supply by security contractor. Coordinate with electrical and security contractors.

**Set: 48.0**

Doors: 302, 407, 505, 506, 507, 512

Description: RFID Access Control Function Pair x Closers w/ Stop x HW Hinges - Fire Rated

6 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Flush Bolt w/Fire Bolt	2848	RO
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Coordinator	1700	RO
2 Closer w/ Stop	351 CPS	SA
2 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Perimeter Gasketing	S773D	PE

**Set: 49.0**

Doors: 116B, 333D, 413B

Description: RFID Access Control Function Pair x Closers w/ Stop & Hold-Open

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Flush Bolt - Latching	2805	RO
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
2 Closer w/ Stop & Hold-Open	351 CPSH	SA
2 Kick Plate	K1050 10" height x CSK x BEV	RO
2 Silencer	608/608CA/609 as req'd	RO

**Set: 50.0**

Doors: 124A

Description: RFID Access Control Function Pair x OH Stops - Inswing

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Flush Bolt - Latching	2805	RO
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
2 Conc Overhead Stop	1-336	RF
2 Silencer	608/608CA/609 as req'd	RO

**Set: 51.0**

Doors: 214, T-8

Description: RFID Access Control Function Pair (Unoccupied) x Closer - Fire Rated

8 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Flush Bolt w/Fire Bolt	2848	RO
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
2 Closer, Tri-Mount	351 UO	SA
1 Metal Edge Astragal	By Door Mfr.	OT
1 Perimeter Gasketing	S773D	PE

Notes: Door closer on active leaf only

**Set: 52.0**

Doors: 202, 244, 254, 402, 436, 439, 501, 504B, 629, 632, 633

Description: RFID Access Control Function Pair - Inswing - Fire Rated

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Flush Bolt w/Fire Bolt	2848	RO
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Gravity Coordinator	576	RO
2 Closer, Tri-Mount	351 UO	SA
1 Metal Edge Astragal	By Door Mfr.	OT
1 Perimeter Gasketing	S773D	PE

Notes:

Entry by valid input at reader to release lever or manual key. Free egress at all times.  
Coordinate with electrical and security contractors.

**Set: 53.0**

Doors: 138, 139

Description: RFID Access Control Function x Closer w/ Hold-Open x Seals- Monitored - Inswing

3 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Hold-Open	351 H	SA
1 Perimeter Gasketing	S773D	PE
1 Sweep	308APK TKSP	PE
1 Threshold	171A MSES25SS	PE
1 Position Switch	DPS-M-GY	SU

**Set: 54.0**

Doors: 332, 504A, LC

Description: RFID Access Control Function x Closer - Fire Rated

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer, Tri-Mount	351 UO	SA

1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE

**Set: 55.0**

Doors: 3502A, 514, T-2, T-5

Description: RFID Access Control Function x Closer x HW Hinges - Fire Rated

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer, Tri-Mount	351 UO	SA
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE

**Set: 56.0**

Doors: 124B, 124C, 126, 216A

Description: RFID Access Control Function Pair - Outswing

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Flush Bolt - Latching	2805	RO
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
2 Kick Plate	K1050 10" height x CSK x BEV	RO
2 Silencer	608/608CA/609 as req'd	RO

**Set: 57.0**

Doors: 602

Description: RFID Access Control Function Pair - Outswing

8 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Flush Bolt - Latching	2805	RO
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
2 Kick Plate	K1050 10" height x CSK x BEV	RO
2 Silencer	608/608CA/609 as req'd	RO

**Set: 58.0**

Doors: 206B, 224, 241E, 242, 243, 3501B, 3502B, 426



Description: RFID Access Control Function x Closer

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer, Tri-Mount	351 UO	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 59.0**

Doors: 206A

Description: RFID Access Control Function x Closer

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer, Tri-Mount	351 UO	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 60.0**

Doors: 333B

Description: RFID Access Control Function x Closer x HW Hinges

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer, Tri-Mount	351 UO	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 61.0**

Doors: 215, 303, 322, 3501A, 406, 408, 502, 603

Description: RFID Access Control Function x Closer w/ Stop - Fire Rated

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl.	DO

	by Owner	
1 Closer w/ Stop	351 CPS	SA
1 Perimeter Gasketing	S773D	PE

**Set: 62.0**

Doors: 218A

Description: RFID Access Control Function x Closer w/ Stop - Fire Rated

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Stop	351 CPS	SA
1 Perimeter Gasketing	S773D	PE

**Set: 63.0**

Doors: 329C

Description: RFID Access Control Function x Closer w/ Stop x HW Hinges

4 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Stop	351 CPS	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 64.0**

Doors: 121, 225A, 225B

Description: RFID Access Control Function x Closer w/ Stop

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Stop	351 CPS	SA
3 Silencer	608/608CA/609 as req'd	RO

**Set: 65.0**

Doors: 210A, 217B

Description: RFID Access Control Function x Closer w/ Stop

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Stop	351 CPS	SA
3 Silencer	608/608CA/609 as req'd	RO

**Set: 66.0**

Doors: 116A, 333C

Description: RFID Access Control Function x Closer w/ Stop &amp; Hold-Open

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Stop & Hold-Open	351 CPSH	SA
3 Silencer	608/608CA/609 as req'd	RO

**Set: 67.0**

Doors: 210B

Description: RFID Access Control Function x Closer w/ Stop &amp; Hold-Open

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Stop & Hold-Open	351 CPSH	SA
3 Silencer	608/608CA/609 as req'd	RO

**Set: 68.0**

Doors: 116D, 131, 238B

Description: RFID Access Control Function x Closer w/ Hold-Open

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Hold-Open	351 H	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 69.0**

Doors: [218B](#)

Description: RFID Access Control Function x Closer w/ Hold-Open

4 Hinge, Full Mortise	<a href="#">TA2714 (size per spec, NRP as req'd)</a>	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Closer w/ Hold-Open	<a href="#">351 H</a>	SA
1 Door Stop	<a href="#">400 series as req'd</a>	RO
3 Silencer	<a href="#">608/608CA/609 as req'd</a>	RO

**Set: 70.0**

Doors: [333A](#), [435A](#)

Description: RFID Access Control Function x OH Stop x HW Hinges

3 HW Hinge, Full Mortise	<a href="#">T4A3786 (size per spec, NRP as req'd)</a>	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Conc Overhead Stop	<a href="#">1-336</a>	RF
3 Silencer	<a href="#">608/608CA/609 as req'd</a>	RO

**Set: 71.0**

Doors: [248](#), [249](#), [323](#)

Description: RFID Access Control Function x OH Stop

3 Hinge, Full Mortise	<a href="#">TA2714 (size per spec, NRP as req'd)</a>	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Conc Overhead Stop	<a href="#">1-336</a>	RF
3 Silencer	<a href="#">608/608CA/609 as req'd</a>	RO

**Set: 72.0**

Doors: [309A](#), [309B](#), [309C](#), [608](#)

Description: RFID Access Control Function x OH Stop

4 Hinge, Full Mortise	<a href="#">TA2714 (size per spec, NRP as req'd)</a>	MK
-----------------------	--	----

1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Conc Overhead Stop	1-336	RF
3 Silencer	608/608CA/609 as req'd	RO

**Set: 73.0**

Doors: 118, 127, 133, 134, 150, 207, 208, 209, 227, 228, 229, 230, 231, 232, 233, 234, 240, 241D, 245, 246, 247, 275, 304, 334, 340, 409, 427, 433, 503, 508, 510, 604, 639, T-3, T-4

Description: RFID Access Control Function - No Closer

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 74.0**

Doors: 221, 222

Description: RFID Access Control Function x HW Hinges - No Closer

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 75.0**

Doors: 435D

Description: RFID Access Control Function x HW Hinges - No Closer

HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
Hotel Lock - BOH	Quantum Pixel RFID w/ Key Cyl. by Owner	DO
Door Stop	400 series as req'd	RO
Silencer	608/608CA/609 as req'd	RO

**Set: 76.0**

Doors: 135A

Description: Storeroom Function Pair - Inswing x Closers w/ Hold-Open x Seals

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Dust Proof Strike	570	RO
1 Combination Flush Bolt Set	2845	RO
1 Storeroom Lock	72 8204 LNMI	SA
1 Gravity Coordinator	576	RO
1 Surf Overhead Stop	10-336	RF
2 Closer w/ Hold-Open	351 H	SA
2 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
1 Metal Edge Astragal	By Door Mfr.	OT
1 Perimeter Gasketing	S773D	PE
2 Sweep	308APK TKSP	PE
1 Interior Threshold	271A FHSL14SS	PE

**Set: 77.0**

Doors: 129, 223, 337

Description: Storeroom Function Pair

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
2 Flush Bolt	555 / 557 as req'd	RO
1 Dust Proof Strike	570	RO
1 Storeroom Lock	72 8204 LNMI	SA
1 Small Format Inter Core	7300B	SA
2 Door Stop	400 series as req'd	RO
2 Silencer	608/608CA/609 as req'd	RO

**Set: 78.0**

Doors: 341

Description: Storeroom Function Pair x Overhead Stops

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Flush Bolt	555 / 557 as req'd	RO
1 Storeroom Lock	72 8204 LNMI	SA
1 Small Format Inter Core	7300B	SA
2 Surf Overhead Stop	10-336	RF

2 Silencer 608/608CA/609 as req'd RO

**Set: 79.0**

Doors: 140, 141, 142, 143, 213A, 335B

Description: Storeroom Function Pair x Closers w/ Stop - Fire Rated

6 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Flush Bolt w/Fire Bolt	2848	RO
1 Storeroom Lock	72 8204 LNMI	SA
1 Coordinator	1700	RO
2 Closer w/ Stop	351 CPS	SA
1 Metal Edge Astragal	By Door Mfr.	OT
1 Perimeter Gasketing	S773D	PE
2 Sweep	308APK TKSP	PE
1 Threshold	171A MSES25SS	PE

**Set: 80.0**

Doors: 255, 336

Description: Storeroom Function - Fire Rated

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Storeroom Lock	72 8204 LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Closer, Tri-Mount	351 UO	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE

**Set: 81.0**

Doors: 101, 111, 119, 125, 220, 235, 348, 431C, 446, 634, 640

Description: Storeroom Function

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Storeroom Lock	72 8204 LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 82.0**

Doors: 2202, 313, 455, 638

Description: Storeroom Function

4 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Storeroom Lock	72 8204 LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 83.0**

Doors: 2200

Description: Storeroom Function x Closer w/ Stop

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Storeroom Lock	72 8204 LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Concealed Closer	91NDCP 90N x Stop Block	RF
1 Kick Plate	K1050 10" height x CSK x BEV	RO
3 Silencer	608/608CA/609 as req'd	RO

Notes:

Entry by valid input at reader to release lever trim or manual key. Free egress at all times.  
Coordinate with electrical and security contractors.

**Set: 84.0**

Doors: 120

Description: Storeroom Function x Overhead Stop x HW Hinges

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Storeroom Lock	72 8204 LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Conc Overhead Stop	1-436	RF
1 Kick Plate	K1050 10" height x CSK x BEV	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 85.0**



Doors: 117, 149, 7828

Description: Storeroom Function x Overhead Stop

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Storeroom Lock	72 8204 LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Surf Overhead Stop	10-336	RF
3 Silencer	608/608CA/609 as req'd	RO

**Set: 86.0**

Doors: 136, 148A, 219, 335A

Description: Storeroom Function x Closer w/ Stop - Fire Rated

3 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Storeroom Lock	72 8204 LNMI	SA
1 Closer w/ Stop	351 CPS	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Perimeter Weatherstrip	303APKTST	PE
1 Sweep	308APK TKSP	PE
1 Interior Threshold	271A FHSL14SS	PE
1 Position Switch	DPS-M-GY	SU

**Set: 87.0**

Doors: 241B

Description: Office Function

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Office/Entry Lock	72 8205 LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 88.0**

Doors: 239A, 447

Description: Classroom Function

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
-----------------------	--------------------------------------	----

1 Classroom Lock	8237 LNMI	SA
1 Small Format Inter Core	7300B	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 89.0**

Doors: 239B

Description: Classroom Function x Overhead Stop

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Classroom Lock	8237 LNMI	SA
1 Surf Overhead Stop	10-336	RF
3 Silencer	608/608CA/609 as req'd	RO

**Set: 90.0**

Doors: 103, 104, 110, 112, 114, 115, 128, 338, 339, 437, 438, 630, 631

Description: Privacy Function w/ Indicator x Closer (RR)

3 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Privacy Lock	LB V21 8265 LNMI	SA
1 Closer, Tri-Mount	351 UO	SA
1 Mop Plate	K1050 4" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO
1 Coat Hook	RM811	RO

**Set: 91.0**

Doors: 205, 314, 414, 429

Description: Privacy Function w/ Indicator x Closer (RR)

4 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Privacy Lock	LB V21 8265 LNMI	SA
1 Closer, Tri-Mount	351 UO	SA
1 Mop Plate	K1050 4" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO
1 Coat Hook	RM811	RO

**Set: 92.0**

Doors: 2204B

Description: Privacy Function

4 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Privacy Lock	LB V21 8265 LNMI	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO
1 Coat Hook	RM811	RO

**Set: 93.0**

Doors: T-10, T-9

Description: Passage Function x Magnetic Hold-Open x HW Hinges - Fire Rated

4 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Passage Latch	8215 LNMI	SA
1 Closer, Tri-Mount	351 UO	SA
1 Electromagnetic Holder	99xM for wall condition	RF
1 Perimeter Gasketing	S773D	PE

Notes:

Magnetic hold-open must be integrated with building fire alarm system and release in alarmed state.

**Set: 94.0**

Doors: T-7

Description: Passage Function - Linen Chute - Fire Rated

1 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
2 Hinge, Spring	1502 (size per spec)	MK
1 Passage Latch	10XU15 LMB	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 95.0**

Doors: 132, 226, 251

Description: Passage Function

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Passage Latch	8215 LNMI	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 96.0**

Doors: 116C, 238A

Description: Locking Push/Pull Function Pair - Double Egress - Kitchen

8 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
1 Top Flush Bolt	555-24	RO
1 Mortise Deadlock	4875	SA
2 Push Plate	70C / 70E as req'd	RO
1 Closer w/ Stop & Hold-Open	351 CPSH	SA
1 Closer w/ Hold-Open	351 H	SA
4 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Astragal	S772D	PE
1 Perimeter Gasketing	S773D	PE

**Set: 97.0**

Doors: 330

Description: Locking Push/Pull Function Pair x Overhead Holders

8 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Top Flush Bolt	555-24	RO
2 Roller Latch	592	RO
1 Mortise Deadlock	4875	SA
4 Offset Pull (BTB)	RM2230-48 Mtg-Type 16	RO
2 Conc Overhead Hold Open	1-426	RF
2 Silencer	608/608CA/609 as req'd	RO

**Set: 98.0**

Doors: 108

Description: Locking Push/Pull Function Pair x Overhead Holders x HW Hinges

8 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
--------------------------	---------------------------------------	----

1 Top Flush Bolt	555-24	RO
1 Roller Latch	592	RO
1 Mortise Deadlock	4875	SA
2 Offset Pull (BTB)	RM2230-48 Mtg-Type 16	RO
2 Conc Overhead Hold Open	1-426	RF
2 Silencer	608/608CA/609 as req'd	RO

**Set: 99.0**

Doors: 113B

Description: Latching Push/Pull Function Pair

8 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
2 Roller Latch	592	RO
4 Straight Pull (BTB)	RM2200-48 Mtg-Type 5HD	RO
2 Conc Overhead Stop	1-336	RF
2 Silencer	608/608CA/609 as req'd	RO

**Set: 100.0**

Doors: 236, 237

Description: Push / Pull Function - Multi Use Restroom

3 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Straight Pull (BTB)	RM2200-48 Mtg-Type 5HD	RO
1 Push Plate	70C / 70E as req'd	RO
1 Closer, Tri-Mount	351 UO	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Mop Plate	K1050 4" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 101.0**

Doors: 203, 204, 312, 315, 416, 417, 430A, 431, 607, 616

Description: Push / Pull Function - Multi Use Restroom

4 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Straight Pull (BTB)	RM2200-48 Mtg-Type 5HD	RO
1 Push Plate	70C / 70E as req'd	RO

1 Closer, Tri-Mount	351 UO	SA
1 Kick Plate	K1050 10" height x CSK x BEV	RO
1 Mop Plate	K1050 4" height x CSK x BEV	RO
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 102.0**

Doors: 401A

Description: Push/Pull Function Pair - Double Acting - Smoke Rated

4 Push Plate	70C / 70E as req'd	RO
2 Dbl Acting Closer w/ Hold-Open	MW807 90A w/ Bottom Pivot	RF
4 Armor Plate	K1050 (F) 34" height x BEV	RO
1 Astragal	S772D	PE
1 Perimeter Gasketing	S773D	PE

**Set: 103.0**

Doors: 405A, 405B

Description: Pair - Push Only x Closers w/ Stop x Armor Plates - Smoke Rated

6 HW Hinge, Full Mortise	T4A3786 (size per spec, NRP as req'd)	MK
2 Push Plate	70C / 70E as req'd	RO
2 Closer w/ Stop	351 CPS	SA
2 Armor Plate	K1050 (F) 34" height x BEV	RO
1 Astragal	S772D	PE
1 Perimeter Gasketing	S773D	PE

**Set: 104.0**

Doors: 618, 619, G-A1

Description: Guestroom Entry

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Hotel Lock - Guestroom	Quantum Pixel RFID w/ Deadbolt by Owner	DO
1 Closer	1131 RU	SA
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Door Bottom	411APKL	PE

1 Viewer	627	RO
1 Privacy Latch	PDLAA	PE

Notes:  
Provide (2) door viewers at accessible Guest Rooms.

**Set: 105.0**

Doors: 618B, 619B, G-D

Description: Guestroom Privacy - Bedroom

3 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Privacy Lock	10XU65 LMB	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 106.0**

Doors: 618A, 618C, 619A, 619C, 619D, G-B4

Description: Guestroom Privacy - Bath

3 Hinge, Full Mortise	TA2314 (size per spec, NRP as req'd)	MK
1 Privacy Lock	10XU65 LMB	SA
1 Door Stop	400 series as req'd	RO
3 Silencer	608/608CA/609 as req'd	RO

**Set: 107.0**

Doors: G-B1

Description: Guestroom Sliding Barn Door - Privacy

1 Surface Roller Track Kit	BLD-FT01 x 1411 Soft Close	PE
1 Sliding Door Lockset	SDL19-ADA	PE
1 Straight Pull	RM2200-12 Mtg-Type 12XHD	RO
1 Flush Pull	BF97L	RO

**Set: 108.0**

Doors: G-B2

Description: Guestroom Dual Sliding Barn Door

1 Surface Roller Track Kit	BLD-FT01 x 1411 Soft Close	PE
----------------------------	----------------------------	----

1 Straight Pull	RM2200-12 Mtg-Type 12XHD	RO
1 Flush Pull	BF97L	RO

**Set: 109.0**Doors: [G-C1](#)

Description: Guestroom Connecting Doors

1 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
2 Hinge, Spring	1502 (size per spec)	MK
1 Exit Lock	10XG15-3 LMB	SA
1 Door Stop	400 series as req'd	RO
1 Perimeter Gasketing	S773D	PE
1 Door Bottom	411APKL	PE

Notes: Hardware set for each single door assembly, double quantities for opening.

**Set: 110.0**Doors: [A-G2](#)

Description: Guestroom Latching Pair x Overhead Stops

8 Hinge, Full Mortise	TA2714 (size per spec, NRP as req'd)	MK
1 Roller Latch	592	RO
2 Straight Pull	RM2200-12 Mtg-Type 12XHD	RO
2 Surf Overhead Stop	10-336	RF

**Set: 111.0**

Doors: 102B, 105A, 105B, 107A, 130A, 135B, 135C, 135D, 135E, 135F, 147D, 147E, [155](#), [200A](#), [200B](#), [203A](#), [203B](#), [203C](#), [203D](#), [203E](#), [203F](#), [204A](#), [204B](#), [204C](#), [236A](#), [236B](#), [236C](#), [236D](#), [236E](#), [237A](#), [237B](#), [237C](#), [237E](#), [237F](#), [237G](#), [237H](#), [237I](#), [277](#), [300A](#), [300B](#), [301](#), [312A](#), [312B](#), [312C](#), [312D](#), [312E](#), [312F](#), [312G](#), [312H](#), [312I](#), [312J](#), [312K](#), [312L](#), [312M](#), [312N](#), [312O](#), [312P](#), [312Q](#), [312R](#), [312S](#), [312T](#), [312U](#), [312V](#), [315A](#), [315B](#), [315C](#), [315D](#), [315E](#), [315F](#), [315G](#), [315H](#), [315I](#), [315J](#), [328B](#), [333E](#), [333F](#), [355](#), [356](#), [357](#), [400A](#), [400B](#), [416A](#), [416B](#), [416C](#), [416D](#), [416E](#), [416F](#), [416G](#), [416H](#), [416I](#), [416J](#), [416K](#), [416L](#), [416M](#), [416N](#), [416O](#), [416P](#), [416Q](#), [416R](#), [416S](#), [416T](#), [417A](#), [417B](#), [417C](#), [417D](#), [417E](#), [417F](#), [417G](#), [417H](#), [417I](#), [417J](#), [419B](#), [430B](#), [430C](#), [430D](#), [430E](#), [430F](#), [430G](#), [431A](#), [431B](#), [435B](#), [435C](#), [441](#), [444](#), [448](#), [600A](#), [600B](#), [605A](#), [605B](#), [607A](#), [607B](#), [607C](#), [607D](#), [607E](#), [607F](#), [607G](#), [607H](#), [607I](#), [607J](#), [607K](#), [607L](#), [607M](#), [607N](#), [616A](#), [616B](#), [616C](#), [616D](#), [616E](#), [616F](#), [616G](#), [616H](#), [627C](#), [636A](#), [636B](#), [636C](#), [636D](#), [636E](#), [636F](#), [637A](#), [637B](#), [637C](#), [637D](#), [637E](#), [637F](#), [637G](#), [637H](#), [637I](#), [637J](#), [637K](#), [641](#), [642](#), [7795](#), FE-1, G-B3, [T-6](#)

Description: Miscellaneous Doors



1 All Hardware

By Door System Mfr.

OT

Notes: Verify lock cylinder requirements with door system manufacturer.

**END OF SECTION 087100**

